



GRIGOL ROBAKIDZE  
UNIVERSITY



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**1<sup>st</sup> Eurasian Multidisciplinary Forum, EMF 2013**

*24-26 October 2013, Tbilisi, Georgia*

*(Forum's place: GrigolRobakidze University, Tbilisi)*

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# FREE TRADE IN EURASIA? OR IS HOME WHERE THE HEART IS?

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## Abstract

Free trade benefits us all and is firmly guarded by the WTO. In earlier research we showed that complaining at the WTO is not always induced by objective facts. We argue that if this is actually the case, trade is not sustainable as it should be, but disruptive instead. It implies that sub optimality is introduced, distorting the beneficial effect of free trade known as in the theory of comparative advantage. In this paper we look at the complaining behaviour on the Eurasian continent and we try to distil driving forces. We are particularly interested in the role of the European community, one of the major complainants. Can we explain this behaviour in terms of home bias, as we found for several other nations, or is this complaining related to objective facts which are subject of international treaty's such as airplane safety? In our earlier exploratory research we worked on data of 28 countries which we analysed using correlation and stepwise regression, finding interesting results. We actually distilled a trend involving home bias. We again pose the question if Eurasian complaining is actually about for instance airplane safety or do also Eurasian countries use treaty's like this to steer away from competition? Is this leading to disruptive trade or the opposite, making trade more free and sustainable? We use statistical analysis and report on a number of incidents, and eventually focus on the role of Foreign Direct Investment in the subset of 28 countries versus Eurasia. We explain why results between the subsets differ to a considerable extent and show convincing examples of home bias induced policy.

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**Keywords:** Trade barriers, WTO complaints, economic structure, home bias

## Introduction

The current literature still needs to explore the relationship between the number of complaints filed at the World Trade Organization, WTO and the economic structure of the WTO members at the macro level. This paper explores the phenomena of the trade complaints and factors which induce and motivate to file complaints. The purpose is to gain an insight into the factors which are correlated with the complaining behaviour of the WTO member countries, Eurasian countries in particular.

The WTO, with the 159 members and 25 observers champions the cause of an open economy with trade liberalization policy. The WTO also facilitates the necessary organizational infrastructure for the members who are perceived as not being kept to the treaties. The WTO is an international institution championing free trade. WTO states as one of the objectives: "Lowering trade barriers is one of the most obvious ways of encouraging trade; these barriers include customs duties (or tariffs) and measures such as import bans or quotas that restrict quantities selectively." Discouraging 'unfair' practices, such as export subsidies and dumping products at below cost to gain market share is a complex issue. The rules trying to establish what is fair or unfair are very difficult.

### **China – EU: Solar Panels**

European solar panel manufacturers have escalated their legal campaign against Chinese rivals by filing a fresh trade complaint in Brussels accusing them of receiving illegal government subsidies.



The anti-subsidy complaint comes just weeks after the European Commission, the EU's executive arm, roiled trade relations with Beijing by opening a separate anti-dumping investigation against the Chinese companies (Reuters, 2013).

*Box 1: The case on Solar Panels is a justified complaint at the WTO because the Chinese heavily subsidise the production, making trading solar panels dumping in legal terms. In this case an agreement can do what it is supposed to do: ensure and regulate free trade.*

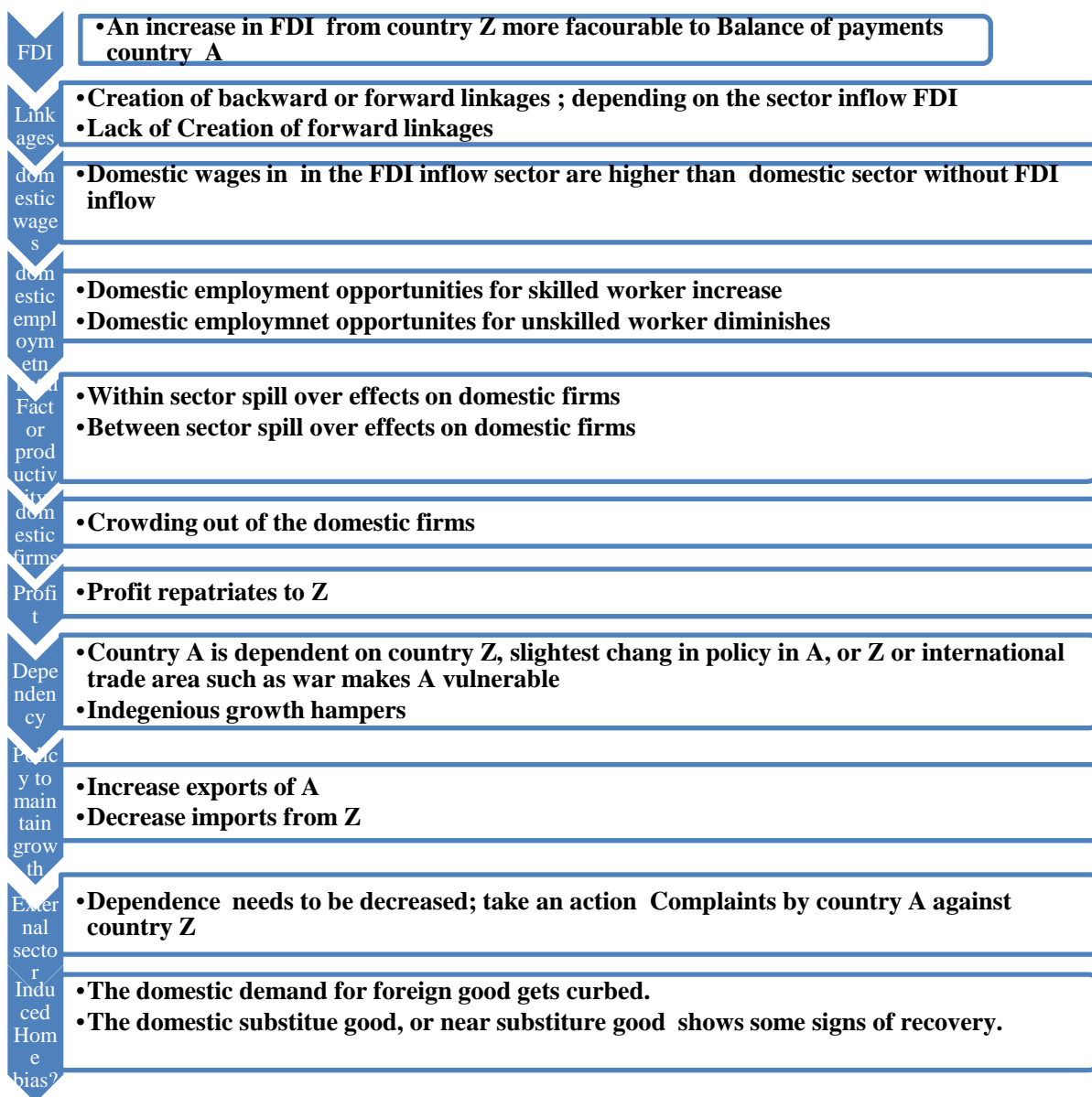
A country WTO member may decide to complain against a particular country when it perceives trade barriers. These trade barriers, which are most probably against a certain treaty.

Alternatively, it might also be a suspicion, when a country suspects an element of barrier against a treaty. It defines a WTO complaint, justified or otherwise, as a legal measure with strong national political backing and hidden economic motives. It is not possible to capture the hidden economic motives directly. It may be a sign of induced home bias. The action of lodging a complaint may be an unintentional or even an intentional induced home bias action. Based on the outcomes of the analysis of a subset of 28 countries, an odd set with relatively many South American countries and also a big economy like India versus Eurasia and we present three cases. We draw some tentative conclusions.

### **Literature and theory overview**

An open economy implies openness to the foreign trade, export and import activities. The export results in the inflow of money and imports cause outflow of money. Rationally each country wants to maintain or maximize its potential of its share in export and balance it with import if not reduce imports. The economic circular flow for an open economy consists of five sectors; namely the household sector, the firm sector, the financial sector, the government and the external sector. It is assumed that the countries, which have joined WTO have been actively busy with the opening of the economy, making free trade free as much as possible.

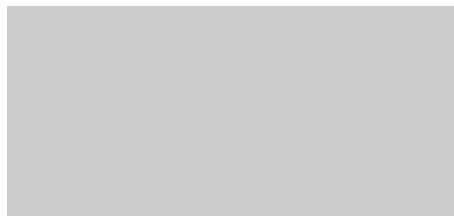
*Diagram1: Chain of reasoning on complaints induced by home bias, a theoretical reasoning on FDI (Foreign Direct Investment)*



Households own the assets of the economy and distribute their incomes to consume and save. Exchange of goods takes place in perfectly competitive markets when it comes to international trade. The firm sector sells their products to household and to firms in the external sector. The household sell their labour and assets to the production sector. The available factors are utilized to the optimum level. The saving is made by the household sector to the bank, which is distributed by the bank to the firm sector. Furthermore, the countries have realized that import substitution is less optimal for the growth process than an export promotion strategy for growth. Being a part of the globalizing world and as WTO member, it is imperative to lessen trade barriers.

### China – EU textile crises 2005

Chinese clothes exports to EU 5 September 2005 Millions of textile and clothing goods from China are being held in European warehouses, because of a dispute over import quotas Chinese-made bras, blouses and T-shirts are piling up at customs checkpoints across Europe, having already bumped up against import limits set earlier this year. A team of officials from the European Union has been in Beijing trying to negotiate a way out of the crisis, so far to no avail. But European retailers are just as annoyed at the quotas as the Chinese....



This showdown has been brewing for a while. When China became a member of the WTO in 2001, it did so under special terms that allowed importing countries to impose short-term “safeguards” on Chinese goods until 2013 if they could show those goods to be causing “material injury” to domestic producers. And separate measures for textiles allow safeguards to be imposed whenever imports threaten “market disruption”. The expiry of the previous quota system made it inevitable that countries with big textile industries—such as France, Spain and Italy—would press for quotas to be imposed. **At best, the quotas are only delaying the inevitable.**

*Box 2: The Textile crises of 2005 is a clear example of home bias induced policy. Due to comparative advantages the production of textiles is shifting to the East. The production of these textiles is not subsidised, but is just very much cheaper to produce textiles in Asia in 2013 due to low labour costs.*

The government sector has to fulfil the wishes of not only the household sector, which is a supplier of labour but is also expected to be able to facilitate the firm sector. The firm sector should be able to produce the goods at competitive prices. Furthermore, the external sector demands through WTO that there is strict adherence to the trade treaties and commitment to free trade. This may lead the government to the dilemma. If a country objectively has a commitment to free trade, she also expects a trade with a country with a commitment to free trade. A commitment to a free trade may be an unpopular policy initiative leading to the visible protest and perceived loss of employment opportunities. A country is open to foreign trade due to the various advantages of international trade. Most importantly, it is able to fulfil the demand of its household and firm sector.

The empirical study results indicate that massive capital accumulation of the export sector brought down Singapore's unemployment rate in the four decades before open trade policy was established. (Kee and Hoon, 2004). Strong possible explanation for the strong European agricultural protection or the EU trade policy is home bias (Eriksson 2006). War on Want is an international alliance of NGOs concerned with issues of justice and with historical links to the labour movement. They are at the forefront of the trade justice movement claiming that free trade threatens the employment around the world.

The main areas of employment in services associated with exports were similar to those areas most prominent of employment in all service activities in Indonesia. The huge contribution of trade to employment is presumably a reflection of the labour intensive character of the trade activities associated with exports: exports of primary commodities for example, are likely to engage a large number of traders. (Manning & Aswicahyono, 2012). For the exporting country when the foreign demand for its product increases, it needs to undertake the production activities, which implies that the employment opportunities in the exporting nation are likely to increase. Assuming all other factors like international competitiveness of the importing nation remains equal, its import increases. This may lead to a fall in the domestic demand for almost substitute domestic good or the domestic alternative for the foreign product, which is not competitive in international trade. This might result in

the decrease in production and thereby decrease in the employment opportunities in the importing countries. This may further result in trade barriers by the importing countries.

The economic growth and development is observed to commensurate with sector shifts in an economy. The primary sector loses its important share in the process of economic growth. As the country develops economically, a larger share of GDP is contributed by the secondary and tertiary sector. The importance of the primary sector declines in the generation of national income. The firm and, the consumer demand for foreign goods are purely rational choices, motivated by the maximization of budget. The government objectives are also to ensure the growth and development, structural unemployment is essential to tackle. For a developing economy there are many obstacles, the problem of unemployment and the creation of structural employment opportunities is one of the most important.

There have been several studies about the role of foreign direct investment FDI in the economic development, a topic beyond the scope of this paper. An open economy with favourable corporate governance is expected to receive higher FDI and we expected it to be positively correlated to the number of complaints. We provide a chain of reasoning about the way in which international property rights or soaring foreign direct investment could lead to complaints of a WTO member country in diagram one. Please recall that the theory of Pareto optimality states that free trade is the optimum way of maximizing the welfare of the trading countries. The distortion in terms of any tariff, any non-tariff or voluntary trade restriction would distort the mechanism leading to sub optimum or disruptive trade. How this disruptive trade may arise based on other than objective complaint behaviour is illustrated in the reasoning in diagrams one and two. In the era of globalization and trade liberalization the protectionism is certainly not a policy that commensurate with WTO membership. The WTO stands for multilateral treaties and for lack of barriers.

**European bureaucracy: Should the EU Sell Bent Cucumbers?**

DPA For years, EU critics only had to mention the "Bent cucumber rule" whenever they wanted to mock perceived European over-regulation. Now, the EU's agriculture minister has suggested scrapping a number of rules to ease the rising price of food. Regulation first-class unbent European cucumbers.



According to European Commission Regulation No. 1277/88, if a cucumber bends more than 10 millimetres per 10 centimetres (0.4 inches per 4 inches) in length, it cannot be categorized as "class one" and may therefore only be sold as a second-rate cucumber. But who wants to buy one of those? Most second-rate cucumbers -- at least according to conventional wisdom -- never make it to market.

*Box 3: Bent Cucumbers: Isn't second rating odd shaped cucumbers a way of frustrating competition, protecting the home based industries as in the case of the textile crises of box 2?*

The international labour organization studies by Janse en Salazar-Xirinachs mentions that " .. Perceptions of the employment impact of trade are probably one of the main explanations for the current stalling in multilateral trade negotiations...." This is not necessarily explicit and trade negotiators do not tend to put employment concerns forward as a reason for inflexibility in negotiation positions. This even though there is consensus among the economists about the role of an open economy in economic growth. The trade liberalization, the export promotion rather than import substitution did prove to be a key to economic success. To attain the Pareto optimum based on comparative advantages in the international trade implies absence of tariffs or any other barriers, leading to efficient use of

resources and development of trade specializations which leads to welfare gains of the trading countries. All Pareto-efficient allocations are thus characterized by production efficiency (Keen and Kotsoginannis 2012).

### **Research question and methodology**

This study examines the possible causality which might exist between the complaints lodged by the member countries of world trade organization henceforth WTO and indicators of economic structure at macro cross-country level with a dataset of 28 countries. In our research we found an actual trend involving home bias. We repeat former analysis and in our modelling efforts we take the number of complaints at the WTO as our dependant variable.

There are clear cases of complaining at the World Trade Organization in which home bias is plausibly the reason for complaining, rather than objective criteria of the rules of trade agreements as mentioned in this paper. Next to home bias in individual cases induced home bias leading to complaining at World Trade Organization (WTO) might also be a trend.

We formulated the following research question:

"Which factors are responsible for the complaining behaviour of Eurasian WTO member countries, if not objective factors, which are the other factors which could explain the complaining behaviour of Eurasian WTO member countries?"

Using correlation and stepwise regression analysis a dataset on 28 complaining countries is analysed in earlier research. The number of complaints at the WTO was the dependent variable in exploratory modelling. Independent variables are various variables on economic structure. Structural Unemployment (SUN), Agricultural Import Share (AIS), Current Account Balance (CAB) , International Property Rights (IPR) and Foreign Direct Investment (FDI) turned out to be significantly related to the number of complaints (Samplonius & Waalkens, 2013) in this subset of 28 countries basically from all over the world. There are strong indicators that complaining at the WTO is at least partly induced by other than objective factors, we refer to the cases in boxes 2 and 3 in this article. These factors other than objective factors are in these cases induced home bias, leading to disruptive trade.

We investigate the correlation between level of gross domestic product per capita and various other indicators of economic structure and -development and its linkages to the number of complaints. The level of development is closely associated with the employment structure in the economic sectors, share of sectors in export and import and other factors like FDI, CAB, SUN AIS and IPR. This includes an examination of the number of complaints and the employment structure of the WTO member countries. We have to bear in mind the level of aggregation of the data. The association between the trade barrier complaints and economic variables can be estimated by carrying out correlation and regression analysis. Furthermore presented cases are part of the analysis. We draw the regression table, after we enter variables on economic structure in a regression equation using step-wise regression to estimate how much variation we can explain using our Eurasian data. The significant correlation between the number of complaints as a dependent variable and a number other independent variables CAB, SUN, AIS, IPR and FDI is estimated by regressing the cross –section of economic structure indicators on a set of regressors of two types: a measure of economic structure and control variables. T testing has been used to asses if these variables differ significantly between the subset of 28 countries and the Eurasian subset.

### **Exploring the Eurasian data**

We explored the data of our correlation table. Each variable was entered into the regression equation stepwise. In this way we tested the outcome of the explorative modelling model of the research on 28 countries. As we applied the statistical approach mentioned above, we started with inspecting the correlation table containing various economic



indicators. We correlated the number of complaints to these economic indicators that relate to the structure of the economy in the subset of Eurasia.

Significant correlations from the correlation table are:

- The percentage of fuel and mining share and number of complaints against or the frequency of respondents is 0.40 at 0,05 level,
- The percentage of agricultural import share and % of agriculture X share correlated at 0,697 at 0,01%,
- The agricultural imports of the Eurasian countries go along with the agricultural export share. This could be also the result due to the agricultural barter trade which is not uncommon in the international trade,
- The percentage of Agricultural Import Share and the percentage of Manufacturing Share in Export at 0,577 at 0,01 level,
- The Agriculture Import Share AIS with manufacturing share in exports. The Eurasian countries have to allocate the scarce resources in the manufacturing sector and higher the export share higher the need for agricultural imports,
- FDI and import share in the world trade is positively related 0,507 at 0,01 level,
- FDI and export share in the world trade is related 0,438 at 0,05 level.
- FDI is in T testing significantly different (much higher) for our 28 countries versus Eurasia.

The Bent Cucumber case is an example of a conflict on agricultural products, actually, a large share of complaints are related to agricultural products. Out of 366 GATT complaints, at least 159 have direct concern with the agricultural sector; 43%. In the case on Bent Cucumbers it is clear that the policy to rate differently shaped cucumbers second class is home biased; there is no relation between shape and quality of cucumbers. Supplemental data on the discussion can be derived from an analysis of our three short case studies of complaining at the WTO presented in this paper (See Boxes 1-3 and the next section on results).

The number of filed complaints correlated to the number of frequency of being respondents is very high: 0,986 at 0,01 level. Apparently the WTO trade platform works as an arena where when a country complains against a certain country is also likely to be complained against, though not necessarily by the same trading partner. High foreign investment means dependency and probably domestic pressure against highly competitive foreign industries, as we found in our earlier research on 28 countries, but FDI is much higher in Eurasia, yet we find no effect on the number of complaints, as in our subset of 28 countries. Then why the mechanism towards complaining as observed for 28 countries seems to be different for Eurasia?

### **Results case research, regression and T-testing**

We tried to fit regression models including the explanatory variables IPR, CAB, SUN, AIS and FDI, but using stepwise regression but none of these variables was significant. We used a T test and found one variable to be significantly different: FDI. FDI is significantly much higher in Eurasia.

It turns out that the EU is the biggest complainer by far. Furthermore we asked which economic factors explain the variation in complaining. In our earlier analysis of 28 countries (EU not included) IPR, CAB, SUN, AIS and FDI, using an odd data set with countries all over the world, including South American countries and India, turned out to be explanatory variables of the number of complaints. Unfortunately data on the Eurasian continent IPR, SUN, FDI and CAB are measured in most countries but lack in the case of the European Union as a whole. At the same time the EU act as a complainant like any other country in Eurasia. This has hampered our analysis for sure. We modelled the variables and entered

these in regression equations that turned out to have a bad fit. FDI for Eurasia proved to be significantly different than in the case of our 28 countries.

Concerning the textile sector (Box 2 on the Textile crises), sector structure in Eurasia has to adapt to a new reality. Low cost labour intensive production will continue to be pressured by low labour cost countries, despite quotas that cannot delay the inevitable if countries are truly committed to free trade and want to lessen trade barriers. Yet, perceptions of the employment impacts of trade liberalization are in many capitals an important determinant of the rank trade takes on the list of priorities for policy action because: "Trade liberalisation is unlikely to automatically create job miracles since successful integration into world markets tends to go hand in hand with the adoption of new technologies and productivity increases" (Marion Jansen & José Manuel Salazar-Xirinachs, 2012).

Returning to Foreign direct investment: FDI was in the eighties and nineties of the last century an affair of Europe – America – Japan (Baoumi & Lipworth, 1997), so naturally still prominent in Eurasian data because also now these two countries and the EU are still the most important investors in FDI in the world economy. Besides this, high FDI is in Eurasia in mineral and oil exploitation (in Georgia, having no oil itself, FDI is about oil *transportation*) and many greenfield investments are made, that don't directly affect the employment situation in Eurasian countries as FDI does in South American countries and for instance India. The population of Eurasia is largely in favour of FDI, our 28 countries are clearly much more divided on this subject and prove to have different economic structures. Integrating with regional partners has allowed a country like Kazakhstan to respond to the disruptions resulting from the 2008-09 global economic crisis not because of FDI but because the lack of it. "The crisis has thinned down the flow of FDI's (foreign direct investments) (...) Far from being a regression to Soviet-era stagnation and protectionism, integration with Kazakhstan's Eurasian neighbours will help expand the country's emerging global economic role." Whereby new FDI is sought and is most welcome (Aris, 2013).

FDI is related to the openness of the economy. The openness is related to the extent of export and import as shown. Higher the export and higher the import greater FDI can be expected in an average Eurasian country, though it can be observed that for export share the relation is somewhat weaker than for the import share for Eurasia. "Overall, FDI inflows to developing markets were only slightly down in 2012 year-on-year, while some markets, like Africa and labour-intensive economies in Eurasia like Vietnam, bucked the trend and saw increases. Meanwhile, investment into developed economies plummeted 32% to \$561bn – a level last seen almost 10 years ago." (Aris, 2013). A large share of forty-two per cent of Russians say foreign investments will help their economy, while about a minority share of one third (34%) say these investments will hurt the economy (Ray & Esipova, 2012). Opposite sounds can be heard in India: "Traders in Malgodown, the state's biggest wholesale market, have vehemently opposed the central government's decision to allow foreign direct investment (FDI) in the retail sector. Traders said the decision will affect local traders and small enterprises." (Jaiswal, 2012)

"The BRICS countries (Brazil, the Russian Federation, India, China and South Africa) continued to be the leading sources of FDI among emerging investor countries. Flows from these five economies rose from \$7bn in 2000 to \$145bn in 2012, still accounting for only about 10% of the world total. In the ranks of top investors, China moved up from the sixth to the third largest investor in 2012, after the United States and Japan," (Aris, 2013).

## Conclusion

The three presented cases show a picture of home bias being more than once a plausible explanation for EU trading policy. The case of Solar panels shows how complaining at the WTO is supposed to work: an objective anti-dumping complaint about a violation of a multilateral treaty. Though we could not capture home bias in our quantitative research, our

qualitative case research reveals a worrying tendency in the light of the ideal of free trade. FDI is an explanatory variable of complaining behaviour in earlier research on 28 countries but not in case of Eurasian nations, even if FDI is much higher in Eurasia. By now we can explain why, since FDI is not considered hostile in Eurasia, as it seems to be perceived in case of the 28 countries including South American countries and India.

Our correlation analysis brought several interesting insights, of maybe which the most interesting is that complaining nations almost automatically face complaints to themselves: complaining and responding are very strongly correlated. As to our regressions equations we need EU level data on IPR, CAB and FDI which have failed us to complete our analysis. For now the presented cases, the double sided role of FDI and the fact that complaining seems to induce complaining sheds light on our question if complaining is actually only induced by objective facts violating free trade or..? Complainers have to respond, responders complain, a never ending game in which we asked if motives for complaining are objective or related to other facts – Free trade in Eurasia for real? – or is home still where the heart is?

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# THE EFFECTS OF INCREASE IN PRODUCTION OF BIOFUELS ON WORLD AGRICULTURAL PRICES AND FOOD SECURITY

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## Abstract

A rapid development of biofuels production observed all over the world in the recent decade has caused numerous consequences. Unfortunately, some of them have rather unexpectedly appeared to be not neutral to world food security. In the paper we briefly highlight key drivers of biofuels production and discuss some supporting as well as opposing arguments presented in the literature with regard to this development. Then, we focus on the transmission mechanism showing how increasing production of biofuels may influence agricultural markets and prices and eventually have an impact on food security. Finally, based on results of our own analysis using the World Bank and the FAO data we provide some empirical evidence that further policy driven development of the biofuels production can exacerbate its negative effects on food security. Especially, we point out emergence of visible linkages between energy and agricultural prices and underline increasing volatility of the latter ones. Due to market interconnectedness between biofuel and agro-food sectors, a strong increase in production of biofuels has contributed to higher levels and greater volatility of agricultural prices. As a result of such development, food affordability in many countries has lowered, hence, the overall world food security has worsened. In conclusion, to avoid distorting effects of biofuel policies, we recommend a flexible approach to the mandates including their removal since production of biofuels should compete for resources as being economically viable activity.

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**Keywords:** Biofuels, agricultural prices, food security

## Introduction

The last decade witnessed an unprecedented growth of the world biofuel production. Global biofuel production has increased more than five times, from less than 20 billion liters per annum in 2001 to over 100 billion liters per annum in 2011. Majority of the total biofuels is produced in the form of ethanol (well above 80%) and the rest constitutes biodiesel. The sharpest annual increase in world biofuel production accounting for over 20 million liters took place in 2007 through 2008. In 2008, about 15% of global corn production (mostly in the US) equivalent to about 5.7 percent of total global corn and coarse grain production and 18% of sugar cane (mostly in Brazil) was used to make ethanol fuel, whereas about 10% of global vegetable oil production (mostly in the EU) was used to make biodiesel (HLPE, 2013). More or less at same time the world experienced a sharp rise in agricultural commodity prices. Prices of globally traded grains, oils and fats were on average from 2 to 2.5 times higher in 2008 and 2011–12 than average prices between 2002 and 2004. Annual averages of sugar prices were from 80 to 340 percent above their levels in 2000–04. Additionally, the observed price movements exhibited volatility and spikes, which had not been noticed since the 1970s (HLPE, 2011).

Grains are the staple food of most people in the developing countries, therefore, considerably higher grain prices can severely reduce food affordability and consequently expose additional large part of the world population to malnourishment or hunger. As presented in a vast number of studies many various factors can be pointed out as responsible for market tensions leading to higher world agricultural and food prices. A list of the most critical ones includes (Figiel and Hamulczuk, 2012):

- impacts of climate change on agriculture;
- world population growth and increasing urbanization;
- increasing and more inelastic food demand;
- growing demand for land in developing countries;
- transmission of price volatility from energy to agricultural markets;
- low inventories and the slow rate of restocking at the household, state, regional and international levels;
- exchange rates and currency movements by affecting domestic commodity prices;
- speculative influences related to the interests of financial investors; and
- short-sighted agricultural public policies in response to food price increase (protectionism, trade restrictions, etc.).

Quite often production of biofuels is perceived as a very much desired in the context of searching for alternative, renewable energy sources and treated as pro-ecological or environmentally friendly. Until recently other aspects of a rapid development of biofuels production have drawn relatively little attention. In fact, promoted strongly by policy actions production of biofuels supposed to be free from significant negative side effects. But, there are more and more research showing that production and use of biofuels driven by policy mandates and renewable energy goals around the world should be added to the above list as a major factor causing upward and volatile movements of agricultural prices.

Main goal of the paper is to contribute to policy discussion on implications of continued development of production of biofuels forced by regulations and supported by subsidies. Our objectives are:

- critically discuss rationale for biofuel policies;
- describe the transmission mechanism causing fluctuations of agricultural prices due to increasing production of biofuels and highlight its estimated price effects; and
- present results of our own analysis of changes in movements of the world agricultural prices and related consequences for global food security.

### **Rationale for biofuel policies and their outcomes**

In general, biofuel policies were assumed as desired response to arising energy security and environmental challenges. Rationale for biofuel policies is quite manifold and includes such elements as:

- increased world demand for energy and related high energy prices;
- attempts to lower crude oil import and diversify energy sources driven by energy security concerns;
- low agricultural commodity prices and looking for alternative use of crop production surpluses;
- improvement of farmers' incomes and development of rural areas;
- environmental arguments such as reduction of greenhouse-gas emissions.

High oil prices exceeding \$130 per barrel in 2008 and the fact that much of the world's oil production occurs in politically unstable regions motivated a number of governments to ensure that their economies are less dependent on oil imports. Theoretically, biofuels can serve as a substitute for fossil fuels and reduce oil imports. Because they can be produced

domestically in many countries, it was presumed that development of such production may improve the energy security of oil-importing countries.

Another important aspect of the biofuel policies rationale is creation an additional demand for crop production, what in effect should lead to improvement of farm incomes and enhancement of rural development. Theoretically, farmers may enjoy higher prices, even if supply rises in response to higher prices, so long as supply increases less than demand. Higher crop prices can contribute to improved farmers' welfare, but also may lead to expansion of land used to grow plants for production of biofuels even on infertile soil and under drought conditions.

Developing countries could have a comparative advantage in producing biofuel plants largely due to lower opportunity costs of marginal land. As estimated countries in South America and sub-Saharan Africa could quadruple their agricultural land base to accommodate bioenergy crops. Such transition from subsistence farming to commercially oriented farming could greatly boost incomes in poor countries. But the problem is that net welfare effect of increasing biofuels production on the poor depends on the impact of rising food prices. The landless poor would not benefit from energy cash crops, but instead could suffer from higher food prices (Sexton et al., 2009).

In many developed countries concern about global warming has seemed to be a very appealing justification for development of fuels that emit less greenhouse gas than oil. Initially, it was quite widely believed that carbon is stored during energy-crop growth and later emitted during the combustion of biofuels in a carbon-neutral cycle, therefore, production of biofuels can significantly contribute to reduction of greenhouse-gas emissions.

This view has soon proven to be too simplistic leading to controversies regarding the actual greenhouse-gas savings when considering greenhouse-gas emissions of an energy source throughout the entire process, including production (soil tilling, gas and diesel-powered farm equipment, emissions from fertilizer production and other inputs), conversion of the energy crop to biofuel, transportation of fuel to market, and fuel consumption. No matter of controversies, which have arisen around this issue greenhouse-gas savings associated with the first generation of biofuels, primarily ethanol from corn and sugar cane, and biodiesel from soy and palm oil are rather modest. Hence, increased production of biofuels can only partially help solve the problem (Sexton et al., 2009).

Motivations for implementing biofuel policies may have been weighed differently in particular world regions and countries, but overall they have resulted in adoption of policies based on such incentives as mandatory blending, tax reductions, and investment subsidies. The United States, the European Union (EU), Australia, Canada and Switzerland spent at least \$11 billion on biofuel subsidies in 2006 (GSI, 2007). Additional factors driving production of biofuels such as the MTBE ban in the US, which left maize-based ethanol as the only viable octane enhancer fuel substitute, the medium-term (2020) EU targets leading to expectations of large-scale oilseed-based biodiesel use and imports, and the adoption of flex-fuel engines for new cars in Brazil should also be mentioned. The direct outcome of biofuel policies has been a fast expansion of ethanol and biodiesel productions. However, achieving these policy goals was accompanied by rather unexpected various effects such as, for instance, substantial changes in behavior of world agricultural and food prices.

### **Impact of biofuels production on the world agricultural prices**

At first glance production of biofuels and prices of agricultural commodities can be considered as seemingly unrelated. However, there appeared to be a very clear market transmission mechanism affecting agricultural prices by development of biofuels production. This mechanism is cyclical in nature and it can be described as the following sequence of several causalities between prices, demands and incomes (Msangi et al., 2012):

- rise in oil and energy prices leads to increases in prices of energy intensive goods and biofuels demand;
- increase in demand for biofuels turns into increase in feedstock and food prices;
- both increase in prices of energy intensive goods and increase in feedstock and food prices cause decrease in economic growth and households incomes;
- lowering economic growth and households incomes reduce food and nonfood demand as well as energy demand;
- decrease in energy demand entails lower energy prices what leads to decrease in prices of energy intensive goods;
- lower prices of energy intensive goods translate into increase in economic growth and households incomes and consequently into increase in energy demand, what closes the cycle as it results in rising prices of energy.

The described mechanism provides theoretical framework to analyze how increase in production of biofuels can change agricultural market fundamentals. For our analysis the key feature of this mechanism is emergence of a more direct interdependence between energy and agricultural and food prices. An empirical evidence supporting this theoretical supposition is presented in figure 1.

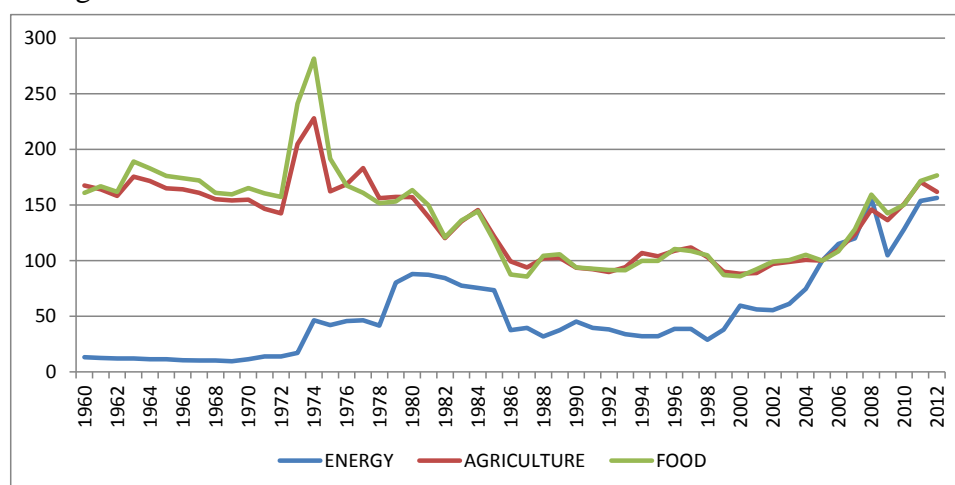


Figure 1. Convergence of the Agricultural and Food Prices with the Energy Prices  
Source: Own calculations based on the World Bank Data

As it can be easily noticed indexed prices of agricultural commodities and food prices have moved very much together in the analyzed period of 1960-2012. Energy prices have seemed to behave sort of independently until the 2005. Afterwards, they started to rise sharply and a growing convergence between their changes and changes of agricultural and food prices became apparent. Beginning in 2008 agricultural and consequently food prices started to exhibit very high levels, which have not been observed since the 1970s.

Various studies clearly suggest that biofuel policies contributed to the increased levels of agricultural and food prices (e.g. FAO, OECD, 2011, HLPE, 2013, Msangi et al., 2012). Medium-term projections using Aglink-Cosimo model, which is a dynamic partial-equilibrium model of the global agricultural sector, showed that removal of the biofuel supports by the EU and the US would lead to very significant reduction of the world prices of such commodities as coarse grains, corn, oilseeds, vegetable oils and wheat (Davies, 2012). This simply means that biofuel policies shifted world agricultural prices upward. It has to be emphasized that under higher price regime stocks are lower and prices become more sensitive to shocks in supply. This is where additional problem arises, namely, increase in volatility of world agricultural prices. Behavior of the monthly US hard red wheat prices from January 1990 through May 2013 presented in figure 2 can serve as a good example.

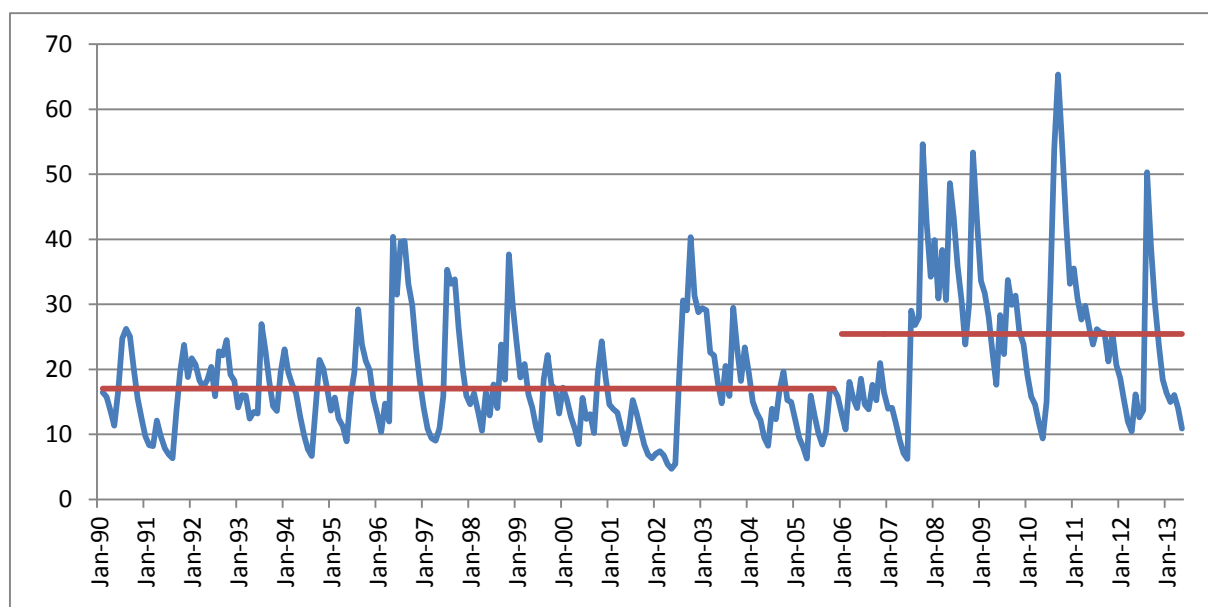


Figure 2. Annualized unconditional volatility of the monthly US hard red wheat prices  
Source: Own calculations based on the World Bank Data

Annualized unconditional volatility of these prices, calculated according to a formula described by Figiel and Hamulczuk (2010), since 2006 has been fluctuating in much wider range than in 1990-2005. Its average value accounting for 25.4% is considerably higher comparing to as much as 17% for the earlier period. Respective pictures for other major world agricultural commodities are not much different (FAO, OECD, 2011, HLPE, 2011). It needs to be realized that rising price volatility constitute greater price risk exposure for various participants of agricultural markets (farmers, traders, processors, etc.) and generates higher transaction costs.

### Food security in the context of agricultural price levels and volatility

According to the FAO definition food security means that aggregate food supply is large enough to feed the total population for their active and healthy life. Food security can be viewed from two main perspectives. The first, is related to territorial distinction between country, regional and global food security. The second, is connected to time horizon considered. Short run food security depends mainly on volatility of food supply, whereas, long run food security is determined by trends in food demand and supply, increase in population, decrease in arable land, farming technology, and alternative uses of agricultural products. Various indicators are used to evaluate food security. As elaborated by the FAO the determinants of food security include availability, physical access, economic access, and utilization. Similar in nature is the Economist Intelligence Unit (GFSI) approach, which covers a number of indicators grouped into three categories: affordability, availability, quality and safety.

Discussing interconnectedness between increasing production of biofuels and food security we focus on agricultural price levels and volatility aspects. Particularly, we are interested in the impact of changing behavior of agricultural prices on global food security. Food prices are reflection of agricultural commodity prices due to derived demand, so, any significant upward movement or shift in volatility of the latter is eventually transmitted to the levels or volatility of the former ones.

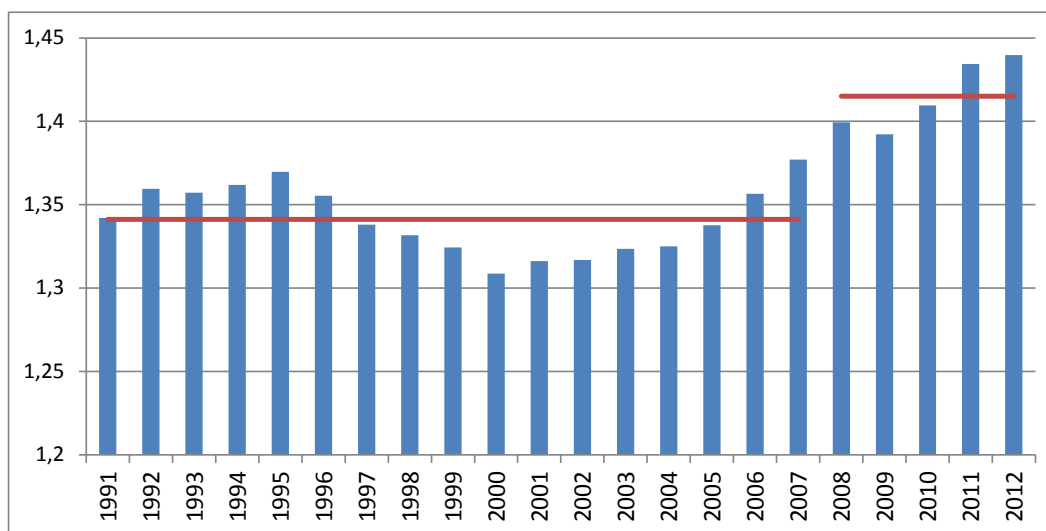
In order to highlight how global food security is affected by the recent increases in levels and volatility of world food prices in figures 3 and 4 values of the food price level index and domestic food price volatility index, respectively, calculated for the whole world are



presented. These indices are one of indicators used by FAO to evaluate food security from an economic access point of view. In other words, levels and volatility of food prices determine food affordability, hence, changes in these indices contribute either positively, or negatively, to overall food security assessment. The average value of the food price level index rose to 1.42 in 2008-2012 from 1.34 in 1991-2007. In case of the domestic food price volatility index its average value went up from 10 in the period of 1995-2006 to 13.5 in the period of 2007-2012. The observed increases in these indices clearly inform about worsening world food security in recent several years.

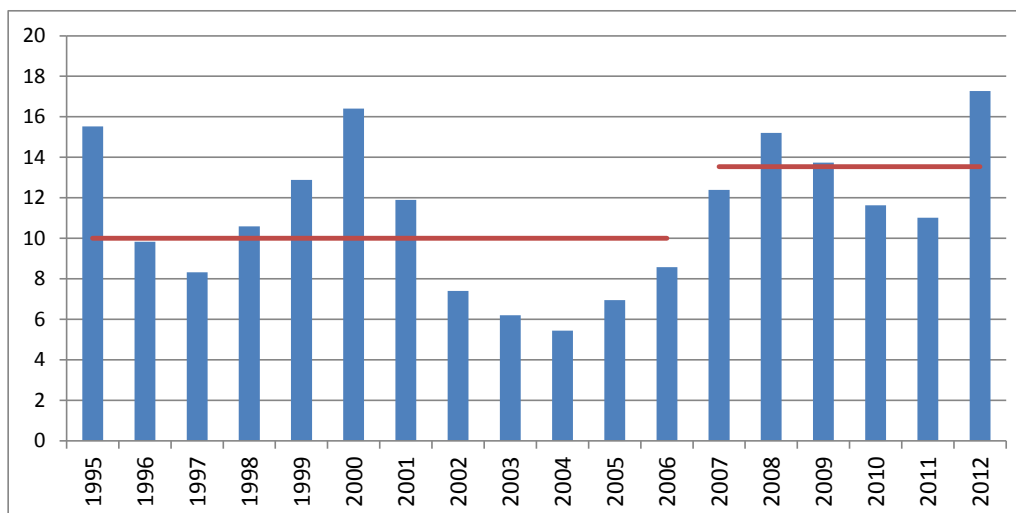
**Figure 3. Values of the Food Price Level Index for the World in 1991-2012**

*Source: Own calculations based on the FAO Data*



**Figure 4. Values of the Domestic Food Price Volatility Index for the World in 1995-2012**

*Source: Own calculations based on the FAO Data*



Such changes may be subjectively seen as minor or major ones depending upon a particular country or a world region economic situation. In particular, impact of that type of changes is strictly related to spending on food as a share of all household spending. According to the Economist Intelligence Unit this share ranges from about 20% in the OECD countries to over 50% in Sub-Saharan Africa and South Asia. Of course, consumers in countries or regions with higher spending on food suffer economically much more from increases in prices of agricultural commodities caused by a rapid development of world biofuels production. Moreover, because consumers in richer countries and regions are not seriously hit by rising and more volatile agricultural prices, as opposed to consumers in poor and less developed

countries, policy makers in developed countries do not seem to appreciate the global problem. According to the GFSI 2012 ranking top ten most food secure countries (among 105 in total) are: the United States, Denmark, Norway, France, the Netherlands, Austria, Switzerland, Canada, Finland, and Germany. All these countries are well developed and heavily involved in supporting development of biofuels production.

### **Conclusion**

Discussed outcomes of biofuel policies and their impacts on global food security deserve critical assessment based both on theoretical premises and empirical evidence. A rapid increase in world production of biofuels has had significant effect on both agricultural producers and consumers. In the developed countries driven by policies increase in production of biofuels resulting in higher agricultural and food prices supports to certain extent farmers' incomes doing relatively little harm to consumers. In the less developed and developing countries the effect is quite opposite, namely, many farms, especially subsistence ones, cannot really benefit from this new production opportunities, but lots of additional consumers fall below the poverty line. So, world food security has worsened due increased production of biofuels.

Most of the biofuel policies were designed and launched in conditions of incomplete knowledge and uncertainty over their impacts on food prices and food security. Adopted in various countries have proven to be shortsighted as their instruments neglected side effects. Especially, upward shifts and increased volatility of agricultural prices seem to have been an underestimated aspect of biofuels production development. Therefore, rationale for biofuel policies, which until recently seemed to be obvious, needs to be revised if global food security is concerned. To avoid distorting effects of biofuel policies, a flexible approach to the mandates including their removal, as well as, elimination of tax reductions and subsidies are recommended since production of biofuels should compete for resources as being economically viable activity.

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# COMPETITIVE STRATEGY TO ACHIEVE ISO-9001 CERTIFICATION IN SMALL AND MEDIUM SUPPLY ENTERPRISES IN CIUDAD JUAREZ, CHIHUAHUA, MEXICO

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## Abstract

Competitiveness is a predominant factor in today supply companies of the manufacturing industry. In this paper, the analysis shows that it took place in the region of Ciudad Juarez, Chihuahua, Mexico in SMEs. To that end, a search for competitive strategies proposed by different authors in the literature of the subject. Besides performing a critical analysis of quality requirements that the customer deems necessary in its suppliers through a questionnaire created through Kano model focused on customer satisfaction. As a result of research results in a business strategy focused on obtaining the certification in quality management systems in the ISO international standard for small and medium businesses in the city. Also the result of this work demonstrates the degree of importance of having a certification in quality management system in the selection of suppliers for manufacturing companies in the region.

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**Keywords:** Competitiveness, business strategy, ISO, quality management

## Introduction:

Having a business strategy that helps small and medium enterprises to develop is a topic that has generated great concern at the increasing number of SMEs in Mexico. According to the last census conducted by the National Institute of Statistics and Geography (INEGI) in 2009 on micro, small and medium enterprises shows that these companies have grown 39.4% between 2003 and 2008. These numbers show the great opportunity that exists for these kinds of enterprises SMEs, to operate a competitive business strategy which results in having a certification in the international standard ISO.

A study by the company WSFB Business Center in February 2013 indicates that 80% out of 4 million micro, small and medium enterprises do not have any kind of certification and nearly 50% do not use techniques in quality or productivity. Also according to figures from the Center for Business Competitiveness Development, only 10% of Mexican SMEs reach ten years of life and achieve the expected success. In addition to these figures according to the Survey of Supply Chain Assessment in Mexico 2008, the average time to solve complaints handled by SMEs is 7.5 days, when the average international best practices is 1-3 days. These data indicate a current problem in small and medium enterprises that serve the maquiladora industry suppliers.

Yet another important fact which creates the need to investigate the importance generated to have a strategy that leads to certification in micro and small enterprises in Mexico is obtained from the 2009 Economic Census conducted by the Secretary of Economy showing that 80% of SMEs cease its activities in its second year of operations and one of the

reasons is that they do not have a certification that allows them to be placed in the foreign market.<sup>1</sup>

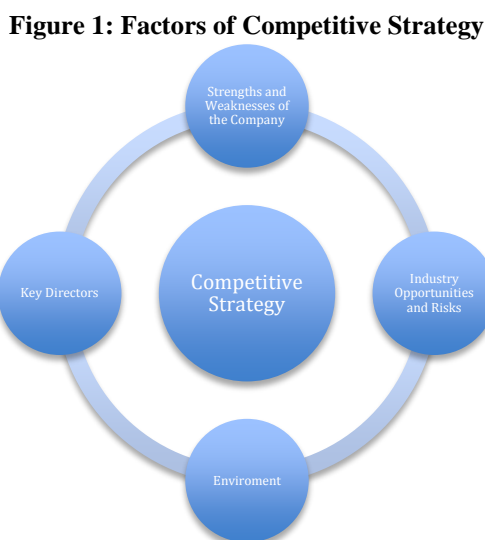
### 1. Definition of Strategy

Rocha (1999) defines strategy as a method of analysis that allows to know the general characteristics of a particular market and all the elements that come together for the purpose of gaining competitive advantage. We study the conditions of different market segments where it waged competitive struggle, and also the structure of competitive forces as suppliers, competitors, buyers, substitutes and potential competitors.

The business activity is carried out in a dynamic environment and a lot of changes strategy, analyze the factors that might influence the competitive environment, it is in function of time. The strategy has a lot of predictive exercise and exercising in a long-term horizon.

### 2. Factors of Competitive Strategy

The establishment of a competitive strategy has relation to four factors: two external and two internal. These are key factors for an optimal strategy for SMEs. There are different strategies for each firm size, which is why the manager has to take into account all the variables that are needed for the success of the business. The variables that need to be taken into account will be analyzed later. The factors for the establishment of a competitive strategy are shown below:



*Source: Rocha (1999), Competitive strategy for business.*

### 3. ISO Certification for Small and Medium Enterprises

With the growing international market requires SMEs in Mexico reach ISO 9001, says Juan Carlos Gomez, who is a marketing manager in Mexico SAI Global. Small and medium enterprises must be certified to ISO 9001 to achieve new levels of development and quantitative and qualitative results with the incorporation of best practices in the globalized world. There is a false belief that the value of certification is very high, however, in an SME from one to ten employees the cost of quality management is one thousand dollars for a period of three years.<sup>2</sup>

But certification is now a necessity that gives customers greater satisfaction and quality assurance in production processes, management and marketing.

<sup>1</sup> "The importance of certifications for Mexican products". Competitiveness and Innovation Mexico-European Union.

<sup>2</sup> El Sol de México . (May 6, 2011). Required certify SMEs: SAI Global.

Another author mentions that ISO 9001 certification adds credibility to their operation and guarantees that the company has its processes under the regulations. And also helps to reduce costs, open bridges with other markets and creates a competitive advantage for small and medium enterprises. And although certified SME base is small in comparison with other countries, such as Brazil which doubles the number of certifications, the growth potential in Mexico is great.<sup>3</sup>

Now shown in Table 1, the different certifications that are applicable for SMEs in Mexico and are valid internationally.

**Table 1: ISO Certifications**

Certification	Accreditation Agency	Goal
ISO 10003:2007	ISO	It is a guide for an organization that helps plan, design, develop, operate, maintain and improve an effective and efficient dispute settlement process of complaints that have not been resolved to the organization.
ISO 9004:2009	ISO	Provides guidance to organizations to support the achievement of sustained success by focusing quality management. This is applicable to any organization, regardless of its size, type and activity.
ISO 9001:2008	ISO	Specifies requirements for a quality management system where an organization must demonstrate its ability to offer products that meet the needs and legal requirements, and aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and legal requirements.

*Source: International Standard Organization. Shows the different certifications you can count on an SME.*

The ISO is recognized as one of the best management practices and quality assurance companies to prove to anyone interested the reliability of the products and / or services offered by an organization (Demuner, 2009). Its use also guarantees the quality and increases the credibility and trust between client and provider, facilitating the integration of production chains (CONACYT, 2006).

There are various reasons that lead to handle a certification in small and medium enterprises. The market-related factors, customer service, efficiency as a starting point for quality improvement are all these motivating forces seek certification (Brown & van der Wiele, 1997).

Quazi and Padibjo (1998) found that certified SMEs in ISO-9000 in Singapore found a large number of benefits including: increased customer preference, improved image quality of the company, market competitiveness, according to customer requirements, and well documented established procedures and a vision founded on the pursuit of total quality management (TQM).

ISO-9001 Certification is based on four criteria represent the pillars of its structure (Demuner, 2009), these criteria are:

1. Responsibility for the direction: Top management shall provide evidence of its commitment to the development and implementation of quality management system, so as to ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction.
2. Resource Management: The organization shall determine and provide the necessary human and material resources.
3. Product realization The organization shall plan, develop, and monitor the processes needed for product realization, while respecting their coherence with the requirements of all system processes.

<sup>3</sup> Castro, 2007. "Advantages of ISO-9001 for SMEs",

4. Measurement, analysis and improvement: Consider the planning and implementation of monitoring processes needed to demonstrate conformity of the product and the continuous improvement of the effectiveness of the quality management.

Finally there are 8 principles through which the system is based certification of quality management systems ISO 9000. These principles are:

1. Customer Focus
2. Leadership
3. Involvement of People
4. Process Approach
5. System Approach to Management
6. Continual Improvement
7. Factual Approach to Decision Making
8. Mutually Beneficial Supplier Relationships

These principles help companies understand more deeply what it means to implement a quality management system and certified, giving confidence to customers, its management system to get the results that companies in other countries have achieved.

#### 4. Important Variables For Competitive Strategy

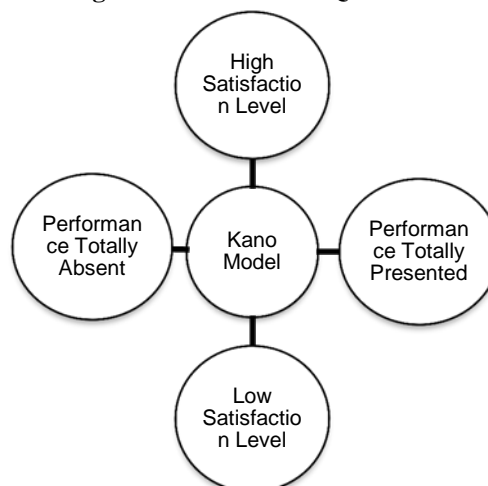
The variables that are considered important for the creation of a competitive strategy focused on small and medium enterprises that serve manufacturing suppliers of Ciudad Juarez, are obtained by applying a survey of the major organizations that are part of the manufacturing industry in Ciudad Juarez. The measuring instrument is obtained by using the Kano model for developing questionnaires on customer satisfaction.

The steps for developing the questionnaire are:

1. Development of Questions
2. Validate the questions and make adjustments
3. Calculate the required sample size
4. Apply the questionnaire to stakeholders

The Kano model is useful for the interpretation of the "voice of the customer" in the subsequent processes of product development or implementation of services. Kano (1984) defines qualitatively the relationship between the attributes of the product or service with customer satisfaction and offers five types of attributes of the products and / or services: 1. - It must be, 2. - Unidimensional, 3. - Attractive, 4. - Indifferent, 5. opposite, as shown in Figure 2, which details the quadrants in which the model Kano is based.

**Figure 2: Kano Model Quadrants**



Source: Own, based on the Kano Model. Displays the quadrants that handles Kano model in which attributes must locate containing the product or service to be assessed to interpret the voice of the customer.

An attribute is considered to be "must be" if its absence produces absolute customer dissatisfaction but their presence does not increase satisfaction. A Unidimensional attribute is considered when compliance helps increase satisfaction and vice versa. Now an attribute is considered "attractive" if it leads to greater satisfaction was not expected to be within the product or service. Instead an attribute "indifferent" is listed as the attribute whose presence in the product or service contributes greatly to customer satisfaction. And finally an attribute is considered as "opposite" if its presence causes dissatisfaction and vice versa.

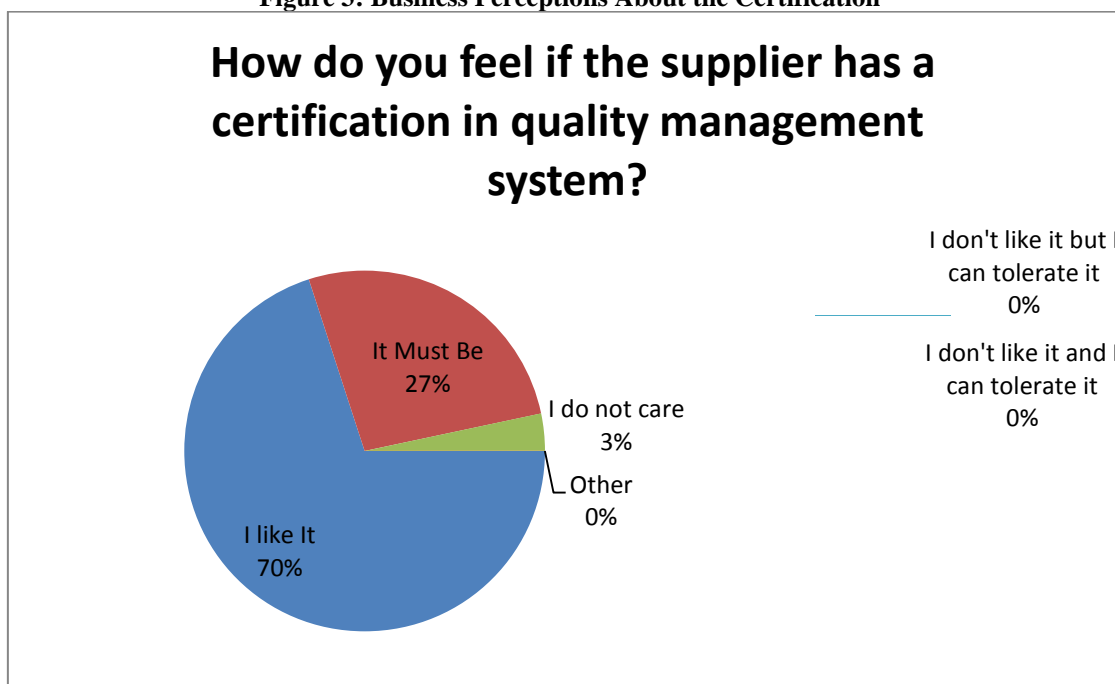
So for the integration of the customer's voice is meaningful within the company, it is important to: Keep attributes "must be", integrating a good number of unidimensional and attractive attributes, the attributes indifferent avoid as much as possible and avoid the opposite attributes.

These attributes, as well as the interpretation of the customer's voice, are obtained by implementing a questionnaire that includes the attributes that the product or service has to be evaluated. Each attribute in question includes a functional form (attribute or characteristic is in the product) or in a dysfunctional (attribute not found in the product).

Besides the 5 types of attributes listed above there is a type of attribute called questionable. This attribute type occurs when selecting a like or dislike of both functional and dysfunctional sides.

Figure 3 shows the results on the perception that businessmen are manufacturing in Ciudad Juarez on the certification of quality management system of its suppliers.

**Figure 3: Business Perceptions About the Certification**



Source: Own Elaboration based on survey results

The results of the survey are shown in Table 2, where you can see the answers to questions in order to obtain the perceptions of employers and / or final customers.

**Table 2: Results of the Survey**

Variable	1	2	3	4	5
a) Time Deliveries	67%	33%			
b) Flexibility of Supplier				57%	43%
c) Product's Quality	73%	23%		4%	



<b>d) Cost Reduction</b>	3%	7%	43%	47%
<b>e) Capacity</b>			3%	43%
<b>f) Certification</b>	70%	27%	3%	53%

Measurement: (1) I like it (2) it must be, (3) I do not care, (4) Dislike but tolerate it, (5) do not like and do not tolerate. (a) Response to Question How do you feel if the product is delivered on time and without delay?, (b) Response to Question How do you feel when a supplier does not have the flexibility to supply different products and varied when you need it?, (c) Response to Question How do you feel if the product you receive is of the desired quality and lasts long awaited?, (d) Response to Question How do you feel if the product cost to acquire greater compared to that of other suppliers?, (e) Response to Question How do you feel when a supplier can not offer higher product volumes you need in a short time?, (f) Response to the question: How do you feel if the supplier has a certification in quality management system?. The respondents report a 67% on-time delivery is important for choosing a provider that flexibility can also be tolerated by customers but shows a dissatisfaction in general and shows that 43% of respondents see the lack of flexibility as a weakness to be eligible for your company's commissary, and finally according to the survey results 70% of companies perceive certification as a mandatory attribute with which the supplier must have.

Taking into account the results of the survey that was applied, variables are obtained that customers consider important in a company that is a manufacturing provider of Ciudad Juarez, Chih. Mexico. These variables are summarized in Table 3, which shows the classification that is given to each of them for the subsequent creation of competitive business strategy proposed by the present work.

**Table 3: Classification of Variables**

#	Requirement	Functional	Disfunctional	Classification
		Scale level chosen by majority	Scale level chosen by majority	
1	Time Deliveries	1	5	Mandatory
2	Flexibility of Supplier	4	1	Attractive
3	Product's Quality	1	5	Unidimensional
4	Cost Reduction	4 and 5	1 and 2	Attractive
5	Capacity	5	1	Unidimensional
6	Certification	1	4 and 5	Mandatory

*Source: Own Elaboration*

Displays the customer requirements considered important for good performance in the supply. The detailed classification if the attribute is considered attractive, giving dimensional mandatory or understand how dimensional attribute that causes the customer satisfaction increases and vice versa. Attractive attributes are what lead to increase customer satisfaction being that this attribute was not considered within the product or service. And finally the mandatory attributes are those whose absence increases customer dissatisfaction.

## 5. Business Strategy Proposal

As mentioned in previous paragraphs, it is important that small and medium enterprises to design a business strategy that will generate a competitive advantage in the market. That is why this research proposes a series of activities that the small and medium enterprise in manufacturing purveyance of Ciudad Juarez can be used to achieve certification of its quality management system to achieve a competitive advantage over other suppliers of the region.

The actions proposed to achieve certification combined with the variable that satisfies customer preferences, are shown below in Table 4.

**Table 4: Business Strategy Proposal**

<b>Proposed Action</b>	<b>ISO Criterion</b>	<b>Variable/Requirement of Satisfied Customer</b>	
<b>Identify Enterprise Processes</b>	Generalities	Cost Reduction.	Capacity
<b>Establishing the relationship between each of the processes</b>	Generalities	Product's Flexibility	Quality
<b>Create a quality policy</b>	Documentation	Product's Quality Deliveries	Time
<b>Keeping track of operations and business critical data</b>	Documentation	Capacity Reduction	Cost
<b>Develop and sign a management commitment to the shares of the company</b>	Responsability for the direction	Flexibility	
<b>Meet the requirements of customers, communicate them and planning action</b>	Responsability for the direction	Time Deliveries Reduction	Cost Flexibility
<b>Periodic review by the direction of the policies, objectives and quality system</b>	Responsability for the direction	Product's Quality	
<b>Identify and provide the materials needed for the quality management</b>	Resource Management	Cost Capacity Product's Quality	Reduction
<b>Train staff responsible for each of the processes</b>	Resource Management	Flexibility Capacity Product's Quality	
<b>Formation of a working environment that encourages proactive practice</b>	Resource Management	Product's Cost Reduction	Quality
<b>Describe each of the key process procedures</b>	Product realization	Product's Quality	
<b>Customer Related Processes</b>	Product realization Responsibility for the direction	Product's Flexibility	Quality
<b>Implement a system for measuring customer satisfaction in each of the stages of the process</b>	Measurement, analysis and improvement	Product's Time Cost Reduction	Quality Deliveries
<b>Create a system for tracking and correction of nonconformities product and / or service that the company provides</b>	Measurement, analysis and improvement	Quality	
<b>Periodic monitoring of the quality management system</b>	Measurement, analysis and improvement	Quality Cost Reduction	

*Source: Own Elaboration. It shows the strategy proposed by the research which makes a comparative central criteria of ISO-9001 certification*

## **Conclusion:**

Getting a certification in quality management system results in the generation of competitive advantage over other companies in the same industry within the market. Achieving certification is currently no easy task for entrepreneurs looking to excel and generate more profits within their organizations, it is for this reason that you need to expand the study on what kind of strategies should take the small and medium enterprises in order to maximize their growth and allow an optimal development in the region of Ciudad Juarez.

To carry out the competitive strategy is necessary that small and medium enterprises engaged in activities that lead to a position in the market as organizations that show the quality of their products and services in compliance with certifications in their quality management systems. This in turn, lead to a better performance in the industrial sector.

The strategy that arises as a result of the research is based on four main criteria that manages the series of ISO 9000 certifications. Based on achieving them, is how to create a

comprehensive strategy to help SMEs understand in a better way the certification besides creating a business strategy that manages to extend the company in the long run.

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# “JUKEBOX SERVICES”<sup>®</sup>: A TYPOLOGY FOR THE PROVISION OF SERVICE

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## Abstract

“Jukebox services”<sup>®\*</sup>, is a new **typology\*** related to the **provision\*** of services. It is an attempt to define and describe accurately and sharply an attitude which can be met at service.

This typology defines the “fake” servicing diathesis which is demonstrated by some service providers who provide proper service only when they are getting paid or they are getting a tip. “Jukebox service”<sup>®</sup> refers to the situation when a service representative does not provide what the Services Marketing science describes as a proper service but, whose sole drive in servicing is to receive money from his customer rather than satisfying him. Thus, this service is considered fake because it is not customer oriented.

“Jukebox services”<sup>®</sup> can be met in many industries, even to public sector services.

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**Keywords:** Services, “Jukebox Services”<sup>®</sup>, typology

## Introduction:

Being many years in the adult training profession and lifelong learning with the duty of tutoring employees who provide services, I have come to the conclusion that smart, short, representative expressions can deliver the “message” straightforward, thus making concepts related to their profession easily understood. Such a training approach can bring result to the daily job of trainees. The “do’s” and “do not’s” belongs to old times of tutoring.

## I.

This humoristic “vintage” phrase “Jukebox service”<sup>®</sup> forms a service typology. It describes the instant and instinct behavior of a service provider according to which he/she is polite- sometimes overly polite- when the payment of the services is taking place or is due. After payment has been effected, the provider becomes inconsiderate, indifferent and unconcerned. In the “Jukebox services”<sup>®</sup> the service provider does not follow the rules instructed by the Services Marketing Science, where the 3 P’s are: People, Physical evidence and Process. The “Jukebox services”<sup>®</sup> typology refers to the P of People.

The Jukebox<sup>®</sup> phenomenon occurs before the provision of service, or during the provision with the hypothesis of payment or a tip, which the provider seeks for.

*A Jukebox is a partially automated music-playing device, usually a coin-operated machine that will play a patron's selection from self-contained media. The classic Jukebox has buttons with letters and numbers on them that, when entered in combination, are used to play a specific selection.*<sup>1</sup>

In the same pattern the music-playing device is the service provider, the coin-operated and played music is the service provided, and the patron is the customer.

In the contemporary societies the service experience should exceed customer’s expectation and the given promises. “Promising exactly what will ultimately be delivered would seem a logical and appropriate way to manage customers expectations and ensure that

reality fits the promises”.<sup>2</sup> In the “Jukebox services”<sup>®</sup> case service provider often exceeds reality by promising intentionally more than she/he will deliver to the customer.

“Jukebox services”<sup>®</sup> can be met at gas stations, mini markets, bakeries, fast food restaurants, street commerce, hotels, restaurants, cafes, pharmacies, gyms, beauty salons, delivery, housekeeper and building services, where the employee is very polite only when the payment is taking place, or a tip is given. Also at postal, telephone and insurance services and to public sector services in underdeveloped countries.

The “Jukebox service”<sup>®</sup> typology, which is developed in this article, will be paralleled with certain Services Marketing concepts, such as: the “placebo services” typology, the “emotional bank account” consideration, the value offered to the customer, the life time value concept, the service dimensions typology, the ethical environment, the e-commerce reality, the neuromarketing approach and the first impressions theory.

The typology of “placebo services” is a close consideration of services with the one analyzed here. “Placebo services” are defined as:

*A placebo is a preparation containing no medicine given to humor a patient or for a psychological effect. Placebo in Latin means “I will please”. Placebo service, likewise, is an imitation of the real thing. To an unsuspecting customer, placebo service seems like the real thing, until your placebo is inevitably exposed. Placebo service does not work.*<sup>3</sup>

At “Jukebox services”<sup>®</sup> the provider shows empathy and nice attitude only when paid. In the “placebo services” nonsensical services are provided, the provider becomes a “liar” in the eyes of the customer by being careless. At the “Jukebox service”<sup>®</sup> one meets a faker with the only incentive of payment, with no provision of promised services.

It is important to mention that customers have an “emotional bank account”. This means that customers use their sentimental world every time they have a contact with a service provider. In the “Jukebox services”<sup>®</sup> the deficit is given. According to Stephen Covey:

*The theory is that we make withdrawals from other people’s emotional bank accounts and look to have deposits made into our emotional bank accounts. The reverse is true too. We don’t like to have withdrawals taken from our emotional bank accounts and often it can take some effort to put deposits into the emotional bank accounts of others. As with any bank account, the more deposits you make, the healthier the account*<sup>4</sup>

Customers nowadays are seeking for emotional bonds with service providers, a contrary belief to the “Jukebox services”<sup>®</sup>. One can easily feel the contrast by comparing the concept of being a “star” with the customer and providing “Jukebox services”<sup>®</sup>

*Customers remember when service providers go out of their way to help them, when they refuse to give up until a persistent problem is solved, when they throw out the “rulebook” if that is what’s necessary... Although extra-effort service is by definition hard to work, it also is more fun to provide. And why shouldn’t it be? Being a star with the customer is fun.*<sup>5</sup>

Today’s customer pay a price and buy a value. At “Jukebox services”<sup>®</sup> the value does not exist.

*Price is part of value but not its equivalent. To customers, value is the benefits received for the burdens experienced; it is what customers receive in exchange for what they must endure to receive it... Price is price, value is the total experience.*<sup>6</sup>

Because in the “Jukebox services”<sup>®</sup> value is “0”, the price of the service falls down, also. On the other hand the life time value of a customer, in “Jukebox services”<sup>®</sup> is usually low, since the customer will never come back, at least by his choice.

*The life time or relationship value of a customer is influenced by the length of an average “lifetime”, the average revenues generated per relevant time period over the lifetime, sales of additional products and services over time, referrals generated by the customer over time, and costs associated with serving the customer. Lifetime value sometimes refers to*

*lifetime revenue stream only; but most often when costs are considered, lifetime value truly means “lifetime profitability”.*<sup>7</sup>

Among the five service dimensions (reliability, responsiveness, assurance, empathy, tangibles), none is provided to the “Jukebox services” case. *These are:*

- Reliability: ability to perform the promised service dependably and accurately.*
- Responsiveness: willingness to help customers and provide prompt service.*
- Assurance: employees’ knowledge and courtesy and their ability to inspire trust and confidence.*
- Empathy: caring, individualized attention given to customers*
- Tangibles: appearance of physical facilities, equipment, personnel and written materials.*<sup>8</sup>

None of above exists in the “Jukebox service”<sup>®</sup> attitude. One of the basic aims of service provision is to build trust among customer and service provider. Ethical behavior is the basis upon the trust is built. In “Jukebox services”<sup>®</sup> trust is absent.

*The term “ethical/unethical” refers to an individual’s subjective moral judgment of right/wrong or good/bad. Company behavior is perceived as unethical if it violates moral norms and values or generates undesirable outcomes*<sup>9</sup>

Moral norms make necessary for the services to be ethical in order the customer to trust the service provider. Even at the e-commerce world services should be virtuous, truthful and frank from the first to the last moment.

*From a moral viewpoint, ethical behavior should not exist because of economic pragmatism, governmental edict, or contemporary fashionability- it should exist because it is morally appropriate and right. From an economic point of view, ethical behavior should exist because it just makes good business sense to be ethical and operate in a manner that demonstrates trustworthiness... In the e-commerce world we’ removed beyond brands and trademarks to “trustmarks.”*<sup>10</sup>

It is obvious that there is no possibility of building trust when the “Jukebox services”<sup>®</sup> phenomenon occurs. When the only aim is the payment the relationship goes away. According to neuromarketing fairness is important to the whole contact among customer and service provider. Fairness is by definition vanished when “Jukebox service”<sup>®</sup> occurs.

*When customers think they are being treated unfairly, a small area called the anterior insula becomes active. The brain’s response is similar to that of smelling a skunk. Such a powerful, negative, and primitive reaction easily overwhelms the deliberation of the more logical prefrontal cortex region. Under these conditions, the perceptions of exchange fairness by a service consumer probably take on even larger role than first imagined. If unfairness is perceived, it is very difficult to re-establish the relationship as the brain has neural wiring from its early formative period that protects from it from known dangers – just as it continues to repeat “safe” behaviors.*<sup>11</sup>

In the “Jukebox services”<sup>®</sup> from the first to the last moment service provider aims to persuade the customer to buy and pay, in a hurry, so that everything will be done quickly and spontaneously. The first moments of the provision of service are very important. The customer makes his/her first impressions.

*It is believed that first impressions are decisive and established or disprove relationship within the first four minutes of the intercourse (Chung-Herrera, Beth G. and Gonzalez, Gabriel R. and Hoffman, K. Douglas (2010), “When demographic differences exist: an analysis of service failure and recovery among diverse participants”*<sup>12</sup>

In the internet, one can meet a very polite seller until the time he is paid, after which the service can become inexistent. The customer is beguiled by the service provider.

Usually low paid employees or employees who are used to get a tip fall into this category. Also, the phenomenon can be met in more “serious” services, as in the public sector,

where the provider is used to serve only when tip or commission is given. There exists also “Jukebox services”<sup>®</sup> corporate behavior, which occurs when a company is promising prompt service when the customer is about to pay and then, when the customer’s need arises, the same company sends her/him to an outsourcing telephone center. Where there is economical booming there is possibility for companies and service providers to provide “Jukebox service”<sup>®</sup>, since customers have surplus income. When economic recession arises, then those will be the first to face diminished sales and losing their customer base.

It remains to be seen if “Jukebox services”<sup>®</sup> concern less civilized societies as far as the level of services is concerned, as well as less trained people, who work on service.

The “Jukebox services”<sup>®</sup> contradict to the added value, to the life time value, to business ethics, as well as, to the many concepts of the customer care, which is an ongoing process with every customer, new or old, with the aim of building relationship with him/her.

Customer nowadays can recognize “Jukebox service”<sup>®</sup> attitude, where no preparation or after sales service exist, neither attention to customer needs and personality. It can be recognized by the body language and the words which are used. Sometimes the service provider resembles a machine which reproduces words by using stilted language – *langue de bois*- (like the Phonograph, the forerunner of jukebox). One can compare through the “Jukebox service”<sup>®</sup> typology the services given by a machine – check in, bank ATM, telephone automatic system- with the real service where human characteristics involve into the provision of service. If the human being behaves like a machine, where money is the input and mechanical service is the output, then the human being is vulnerable to machine and robotics service. Nowadays, one can meet people in the streets, or in shops who follow the “Jukebox service”<sup>®</sup> approach. Sometimes over politeness can be characterized as “Jukebox behavior”<sup>®</sup>. In touristic areas the phenomenon is met at cafes and restaurants in which are hanged low aesthetics photographs of the products they serve, at souvenir shops where the one close to the other are selling the same product, all with employees out of the shop “fishing” tourists walking by. Today’s experienced tourists can easily recognize the phenomenon, so they either not enter, or they seek very cheap prices, making a cycle in which everything is cheap: prices, value, service, attitude, aesthetics.

Additionally, this attitude, damages the society’s opinion about service providers since customers become suspicious about services in general, especially in the same sector. In a broader social context the “Jukebox services”<sup>®</sup> starts like a “I win-you lose” situation, with the service provider being the winner, but arrives at a “I lose–you lose” situation.

“Jukebox behavior”<sup>®</sup> describes the customer as well, since service provision and delivery is an interactive process. “Jukebox customer”<sup>®</sup> is polite when she/ he receives exceed services and over-demands from the provider due to the fact that he pays. But he does not participate properly when is needed, so the service outcome becomes poor.

Examples of “Jukebox services”<sup>®</sup> are:

- At the gas station where the employee smiles and takes care of customer’s car (check for oil and tires, cleaning windows) only when he receives a tip.
- At a fast food where the cashier smiles and tries to cross-sell until the completion of the order. Then she/ he becomes inconsiderate for the customer.
- At a restaurant or coffee shop, where the waiter is polite and gives more attention only to those customers who give a tip.
- At a hotel, when a groom leads the customer to her/his room and looks at his hands for a tip.
- At a hotel where the receptionist is “busy” when speaking to the customer while talking to the phone and looking at the computer at the same time. Sometimes the mobile is ringing! Only when payment is to be done, he says a warm thank you.

- At touristic destinations where there is someone inviting customers to enter the premises and then no one gives the promised – at the street- attention and service.
- At a hairdresser salon where the girl who shampoos the customer is looking after the tip.
- At beauty centers where the customer is pampered until he buys the treatment and then the service become indifferent.
- At a local pharmacy where the pharmacist and employees are polite when customer buys and they do not giving consultation to the customer, if needed.
- At local mini-markets where politeness is given only for sales purposes.
- At the street commerce where illegal commerce takes place one meets usually “Jukebox service” providers.
- At a gym, where the customer pays for a time period and personnel is polite at the day of payment, and then they become inconsiderate to the customer’s needs.
- A postman who brings mail/ parcels to the door of the customer who gives a tip.
- In delivery services where the delivery boy smiles and says a warm thank you only and when a tip is given, and not for the customer’s preference to his company by ordering the received menu.
- Building services (plumbers, house painters, restorers), where the polite behavior changes after the agreement has been made.
- At housekeeping services, the service provider is helpful, happy and caring only when he is paid. If payment is delayed, the service provider might become irate. Also often the employee “invents” needs for the owner of the house, not for the purpose of making the house cleaner, but in order to earn more money.
- At insurance companies services where the insurer is polite, giving and caring only and when the customer is to buy a new contract. At the case of a need the same insurer may disappear.
- At a telephone service when the service provider talks like a robot. i.e: “Good morning, my name is....., how can I serve you?”, with a voice which sounds like a machine rather than a human being.
- A public sector employee who gives attention to affairs for which he has been paid for. In public hospitals a surgeon may pay attention to patients who offered an “envelope” with an amount of black (mainly to underdeveloped countries).
- Usually foreigners who work at another country, when copying cultural elements of politeness and apply them to their business, they become extraordinarily polite without any reason, thus giving “Jukebox services”.

### **Conclusion:**

The playing list being the level of the services provided, the coin being the “tip”, the “Jukebox services”<sup>®</sup> provider delivers poor service to the modern, well traveled, experienced customer. Especially in the “experiential” era in services, according to which the customer deserves “experience”, the “Jukebox attitude”<sup>®</sup> is a wrong one, with the serious result of the non returning customers.

It remains to be seen how culture affects the attitude of providing “Jukebox services”<sup>®</sup>.

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# SMALL AND MEDIUM-SIZED COMPANIES' SATISFACTION WITH BANKS' SERVICE QUALITY

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## Abstract

This paper studies the scientific approaches of customer satisfaction and determinants influencing an overall customer satisfaction. Analyzing the concepts of satisfaction, it was found that the greatest impact on customer satisfaction with commercial banks has the service quality. Also the elements influencing the service quality were identified and investigated. These elements were as follows: understanding the business environment, commuting, flexibility, communication skills, interest in small and medium-sized businesses, speed of decision-making, responding to customer needs, awareness, level of expertise, reliability. After statistical investigation it was found that only understanding the business environment, flexibility, communication skills and level of expertise are statistically significant elements. As a consequence, the regression model of small and medium-sized companies' satisfaction with commercial banks' services' quality was established.

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**Keywords:** Service quality, customer satisfaction, commercial banks, small and medium-sized companies

## Introduction:

Assessing customer satisfaction is a vital element in any strategy for service-led business performance improvement (Jones, 1996). Therefore, customer satisfaction is important for banking business success. According to Kaura (2013) the survival of banks depends on customer satisfaction. Al-Eisa and Alhemond (2008) claim, that winning customer satisfaction through superior service has become an effective strategy that service providers in general and retail banks in particular diligently strive to pursue. Customer satisfaction is a significant indicator for customer loyalty (Pont, Mcquiken, 2005) and company's future profit (Cengiz, 2010).

Banks' customers can be divided into individual and corporate (business) ones. As far as the corporate (business) customers are concerned it is worth identifying small and medium-sized business as such business is considered to be one of the most promising sectors of Lithuanian economy (Adamonienė, Trifonova, 2007). Consequently, for the successful commercial banking operations and development it is important to define customer satisfaction concept and measurements as they have vital role for businesses in providing and maintaining a competitive advantage and drives future profitability (Anderson, Fornell, 1994). The problem of the research is how to assess small and medium-sized companies' satisfaction with the banks. The object of the research is small and medium-sized business satisfaction with banks' service quality. The aim of the research is to create a model measuring small and medium-sized companies' satisfaction with banks' service quality. The following objectives are settled: to analyse the concepts of satisfaction; to analyse analytical data of businesses satisfaction with the banks' service quality; to carry out a correlation analysis of the data to determine the strength and direction of relationship; to create a service quality satisfaction measuring model.

### **The Conceptions of Satisfaction:**

A number of different concepts of satisfaction could be found in scientific literature. Many scientists state that customer satisfaction is one of the most important factors determining the growth and success of the company. According to Jones (1996) customer satisfaction is a major driver for survival, competitiveness and growth. There are also scientists, who claim, that satisfaction is a factor affecting the confidence of customers. For example, Žvirelienė and Bičiūnienė (2008) claim that satisfaction is one of the factors that strengthen the mutual trust between the company and the customer, and define it as an important dimension of relationship marketing, which can be used to determine to what extent the market participants are satisfied with each other's activity. Many scientists claim, that satisfaction is necessary to anticipate further actions of the client. According to Molina et al (2007) satisfaction is one of the most essential factors to predict consumer behaviour.

Summing up all the concepts of the customers' satisfaction becomes obvious that customer attraction and retention is possible only through satisfying the needs of the customers. Therefore, it is important to determine what influence clients' satisfaction with the bank the most.

### **Factors determining Satisfaction with the Service Quality:**

There are scientists claiming that customers' satisfaction with the service quality is one of the most important determinants that influence an overall customers' satisfaction (Levesque, McDougall, 1996; Aga, Safakli, 2007; Lenka et al, 2009; Chigamba, Fatoki, 2011; Chen et al, 2012; *etc.*). Therefore, the satisfaction with the service quality has been investigated in this article and such elements influencing business' satisfaction with banking service quality have been distinguished (Mačerinskienė, Skvarciany, 2012):

- understanding the business environment,
- commuting;
- flexibility;
- communication skills;
- interest in small and medium-sized businesses;
- speed of decision-making;
- responding to customer needs;
- awareness;
- level of expertise;
- reliability.

### **Empirical Findings:**

The study was conducted to identify the key factors that determine satisfaction with banks' services' quality. Ten variables were investigated in this research. These variables were as follows: understanding the business environment, commuting, flexibility, communication skills, interest in small and medium-sized businesses, speed of decision-making, responding to customer needs, awareness, level of expertise, reliability. The questionnaire method has been chosen to carry out a survey as this is one of the most effective methods to gain insight on the opinions of the research subjects and to process the data received.

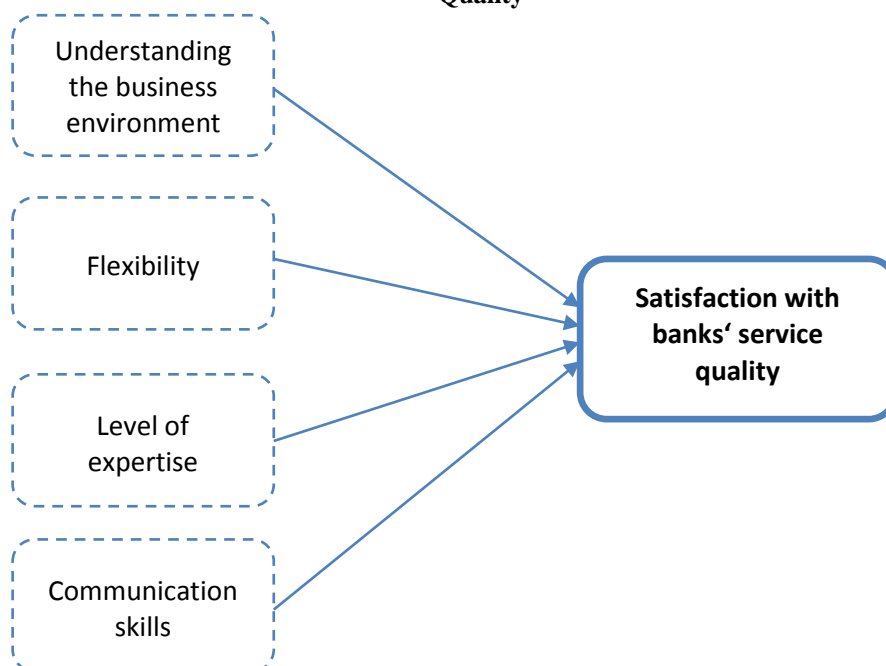
It was found that the estimated number of respondents was 400<sup>4</sup>. According to Statistics Lithuania (2013) the number of employees of small and medium-sized companies' was 636000.

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<sup>4</sup> The number of respondents was calculated using the formula:

In fact, 405 of distributed questionnaires were returned. All the data were included for analysis. After regression analysis statistically significant variables were identified and the model of banks' service quality satisfaction was created (see Fig. 1).

**Fig. 1: The Model of Formation Small and Medium-sized Companies' Satisfaction with Banks' Service Quality**



Source: designed by authors (2013)

The test model can be written as:  $y = f(X_1, X_2, X_3, X_4)$ ,

where:

$Y$  – banks' service quality;

$X_1$  – understanding the business environment;

$X_2$  – flexibility;

$X_3$  – communication skills;

$X_4$  – level of expertise.

After analysis of the model (see Table 1) a regression equation (3) was developed to find out the customers' satisfaction with banks' service quality which is given below:

$$Y = 0,693 + 0,171X_1 + 0,166X_2 + 0,284X_3 + 0,253X_4. \quad (3)$$

**Table 1: Regression on Commercial Banks' Service Quality**

**Coefficients <sup>a</sup>**

$$n = \frac{1}{\Delta^2 + \frac{1}{N}},$$

where:

$n$  – sample size,

$N$  – number of employees of small and medium-sized companies' in Lithuania,

$\Delta$  – margin of error ( $\Delta = 0,05$ ).

Applying the formula:

$$n = \frac{1}{0,05^2 + \frac{1}{636000}} \approx 400.$$

Model	Non-standardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0,693	0,146		4,731	0,000		
Understanding the business environment ( $X_1$ )	0,171	0,042	0,184	4,038	0,000	0,520	1,924
Flexibility ( $X_2$ )	0,166	0,038	0,206	4,378	0,000	0,486	2,057
Communication skills ( $X_3$ )	0,284	0,044	0,279	6,432	0,000	0,572	1,747
Level of expertise ( $X_4$ )	0,253	0,045	0,249	5,663	0,000	0,556	1,798

a. Dependent Variable: Commercial Banks' Service Quality

Source: designed by authors (2013)

### Conclusion:

All the variables in the regression model (3) are statistically significant, what is possible to set out from the Table's 1 Sig. column (Sig. < 0,05). What is more, it can be said that communication skills is a factor, having major impact on small and medium-sized companies' satisfaction with banks' service quality (t = 6,432, see Table 1). Apart from that it was also found that commuting, interest in small and medium-sized businesses, speed of decision-making, responding to customer needs, awareness, reliability are statistically insignificant elements that have almost no impact on small and medium-sized companies' satisfaction with commercial banks' service quality.

To sum it up it becomes obvious that commercial banks should make efforts to improve all the variables that have influence on customers' satisfaction with banks' services quality as service quality is considered to be one of the most important determinants that has an impact on overall customers' satisfaction with the bank.

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# GEORGIA'S TRADE POLICY AND FREE TRADE AGREEMENT WITH THE EUROPEAN UNION, REALITY AND FUTURE

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## Abstract

The track of Georgia's integration with the West crosses several basic goals. First and foremost, of course, it is membership in NATO and the European Union. Europe supports those countries which are considered as its strategic partners politically. Today, when the EU really sees that less a developed country tries to follow democratic standards and does not give up important principles of the European civilization, as an encouragement, it creates opportunities to sign a free trade agreement with such country. Today, Georgia is considered in such an aspect. Signing of a free trade agreement with any particular country is definitely oriented to some positive result. However, cooperation of this scale with such conglomerate as the European Union can be viewed also as a kind of indirect guarantee of Georgia's security. It is worth emphasizing that a free trade agreement is one of the components of the association agreement. Presumably, until the end of 2013, the dates when formal negotiations could start on this issue will be agreed upon. It looks like it will be the second half of 2014. The very fact that free trade with Europe may become real is very positive.

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**Keywords:** Free trade, trade policy, integrtion, European support

## Introduction

The curve of Georgia's integration with the West passes through several basic signposts. First and foremost, it is apparent that before membership in NATO and the EU, it is a special status of associated membership. To get this status, the so called 'new roadmap', a kind of a 'MAP' of the EU was called on. Its role was vested into the East European Partnership Agreement that the European Union signed back in 1999 with six nations (Georgia, Armenia, Azerbaijan, Belarus, Ukraine and Moldova) and provided intensive economic interaction between the European Union and these countries.

As opposed to other countries, Georgia has enjoyed for a long time the Generalised Scheme of Preferences plus system (GSP+). It stipulates partial or entire removal of tariffs on two thirds of all product categories on the European market. The Georgian products on the European market have serious preference rights. From 10000 tariff positions as specified by the Unified Customs Code of the EU, today about 9300 denominations of goods are covered by this scheme, but notwithstanding this, Georgia exports only tens of denominations of commodities to the EU. From them only 34 denominations of commodities are covered by the privileges of the GSP+ regime. Starting from 2008, the European Union has offered Georgia to sign Deep and Comprehensive Free Trade Area Agreement (DCFTA).

Europe supports and encourages those countries that are deemed to be its politically strategic partners. If the EU sees that a less developed nation tries to arrange its development on the path of democracy and its standards and does not betray important principles of European civilization to support these countries, the European Union offers

them an opportunity to sign a Free Trade Agreement. Today Georgia is viewed within this vein. The point is how timely and right will our response to this opportunity be? According to international practice, Free Trade Agreement is not a simple paper to sign. Its preparation entails a long and daunting process within which the parties make up and negotiate particular liabilities and regulations.

In March of 2009 was published a report of a special mission of experts from the EU. The report delicately and in diplomatic language describes necessity of carrying out relevant reforms in Georgia and provides meaningful recommendations which are a must for signing of this agreement.

In November of 2010, at the meeting with the President of Georgia, the President of the European Commission, Mr. Jose Manuel Barroso openly hinted that the country to carry recommendations out needs 'more efforts'. It was the first warning for the Georgian authorities. He also emphasized that 'determination of time for trade negotiations is in Georgia's hands.' 2 more years passed and it turned out that our country was not ready not only for signing of Free Trade Agreement but for negotiations. It was the heritage of the newly elected government. In spite of intensive activity, the European Union has not finished its assessments and consultation process. In spite of the fact that the previous Georgian government stated a lot of times about its desire to sign such agreement, it has made no real and particular steps in this direction. Evidence to this is that despite of a lot of reminders from the EU and its Commission, for several years the Georgian government stubbornly refused to fulfil all 4 requests. These requests are taken by the European Union as preconditions to the signing of the Free Trade Agreement. These four requests are as follows: reform of the statistics agency and statistics system, amendments in the Labor Code, resolution of the food security problem and introduction to anti-monopoly regulation. Neither direction was addressed by viable steps from the Georgian authorities until 2013. Supported by well-organized PR campaigns, within these requests only 'some' insignificant and 'show-offish' changes have been introduced. Anti-monopoly laws have been formally amended, but articles and paragraphs which were included in the laws in reality cannot and will not deliver change in the existing setting. All these things have been easily seen by the EU experts. Before and during discussions of the bill and many recommendations have been issued, but... The leeway of negotiations is not big but the outcome depends on the implementation of vested liabilities. The task is to do things right.

To make it short, 5 years have passed and talks have not started yet. Georgia failed to fulfil minimal requests necessary for starting of talks. Experts of the European Union openly stated about their substantiated doubtful opinion on the readiness of Georgia to the transition of intensive stage of negotiations.

It is noteworthy that parallel to these developments, in the so called pro-government paper and TV media more and more vocal became experts and specialists who stirred questions with the viewership and readership "How desirable is an agreement of the kind offered by the European Union? Europe is led only by its own interests and it needs market for its own commodities." So, insidiously the public opinion was formed against the Free Trade Agreement. Besides, the people of libertarian world outlook who were in the previous government had already placed Georgia's economy in certain frames. According to them, it was an open market principle in action with the help of which they tried to create favorable conditions for attracting investments.

Definitely, setting in effect of the Deep and Comprehensive Free Trade Area Agreement from the side of Europeans is a kind and purely political decision, since from pragmatic point of view, Georgia is a very small market, and its share in the turnover of the European trade space is likely to be about 00,01 percent.

It is worth noting that today the Europeans have a Free Trade Agreement only with South Korea.



### What will bring Free Trade Agreement to Georgia?

Export of any kind of commodity from Georgia to the European Union will be much easier. We know that the main barriers in the trade are not tariffs but legislative background, and due to that it is very difficult for the commodities to reach out to the EU markets. First of all, here we mean technical regulations. But if we have technical regulations harmonized with the European Union, it will be possible to sign an agreement on the mutual recognition of quality adequacy system. It is very important to achieve it.

It is evident for all that European standards are high and services are of high quality, therefore, if Georgia fits in into these standards, not only European but the biggest consumer market of the United States of America will be open for her. Consequently, it will be much easier to conclude a free trade agreement with the USA. Marketing of the Georgian products will also be facilitated.

After new Georgia achieves, the status of the European market participant, we will become much more attractive for bringing investments from the countries having biggest financial opportunities, like Americans and European, and also Japanese and our neighbour nations. Since Georgia has cheap workforce and local raw materials, and the Georgian agriculture manufactures ecologically pure products, Georgia will become a venue of producing international brand products. According to the logics of business, an investor will start here enterprises having high technological potential, since his products could be exported to Europe without any barriers, customs and additional formalities.

Several years ago, a well-known research group, CASE, along with Global Insight, conducted a survey showing that Deep and Comprehensive Free Trade Agreement with Europe can have an important positive impact on the Georgian economy, especially in spheres of our nation's comparative advantage. According to the survey, for example, during 5 years from signing of the agreement, textile manufacturing may grow by 55%. DCFTA may have positive impact on the mining and open-pit industry. Chemical rubber and plastic industry may have growth by 19%. Positive influence of trade regime will also tell on steel industry which may grow by 30%. It is also important that putting DCFTA into effect may also impact raise of the level of salaries and wages in Georgia. All the above-mentioned stems from the fact that perspective of expansion may have such industries that have high intensity of labor (steel industry, production of textile, etc.). At the same time, free trade regime may provide significant positive fillips to the expansion of export products. In the next five years increase in the overall Georgian export may amount to 13%. Export of metal products may also increase, as well as exports of food staples and beverages (especially natural wines and alcohol drinks). Export of textiles in the next five years may increase by 158%. Other industries, like production of furniture, leather and haberdashery, jewelery, toys sporting items and others.

What are the main requirements that Georgia should meet before the negotiations start?

We should have such developed system of standards that nears the European standards; likewise, the European level of standards should be ensured in the field of statistics; competition sphere should be regulated. Important direction is also a copyright sphere. Also very important fields at which European Union pays great attention are sanitary and phytosanitary with regards to foodstuffs.

Today the new Georgian Labor Code will play advantageous influence on the negotiations. In spite of the fact that necessity of the adoption of the new labor Code has been on the agenda since 2008, national Movement government did not even think about that.

**Conclusion:**

Georgian production to be imported on the European markets should pass certification process at the internationally recognized certification centers. Harmonized standards should be adopted what requires several years and serious investments. And in fact, serious investments can come only after free trade agreement.

It should be emphasized that a free trade agreement is one of the components of the agreement on association. It is exactly for the sake of this that Georgia's alertness for the Vilnius summit has a special importance. Agreement on Association is a way to the Deep and Comprehensive Free Trade Agreement.

This is not a fantasy and for Georgia its accomplishment is absolutely feasible. During the last several months most of issues have been tackled and relevant paperwork has been dispatched to the European Union. Presumably, until the end of 2013 these dates of formal negotiations will be determined. It is likely to be the second half of 2014. The very fact that a free trade with Europe is possible and it may become a reality, is very positive, but it should be achieved.

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# THE IMPACT OF USING ACCOUNTING INFORMATION SYSTEMS ON THE QUALITY OF FINANCIAL STATEMENTS SUBMITTED TO THE INCOME AND SALES TAX DEPARTMENT IN JORDAN

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## Abstract

This study aim to demonstrate the use of the accounting information systems' impact on the quality of financial statements submitted to the Income Tax and Sales department in Jordan and the impact of such use, where Income Tax and Sales department works to collect tax money and auditing on tax payers in order to supply the state treasury with public revenues, a questionnaire consists of fourteen questions was designed by the researcher to measure the impact of the use of accounting information systems on the quality of financial statements submitted to the department, this questionnaire was distributed on 50 accountants who work in the department, all distributed questionnaires were retrieved, arithmetic mean and standard deviation have been extracted to describe the answers of the study sample, Cronbach's alpha test was used to measure the stability of measurement tool and also simple linear regression test was also used to test the hypothesis of the study. The study found that there is a presence of an impact when using the accounting information systems on the quality of financial statements submitted to the Income Tax and sales Department in Jordan, the study recommends to focus on the development of the devices used in the department, train and development of the staff on an ongoing basis to enable them to continue to perform their jobs and improve the quality of financial statements in the department.

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**Keywords:** Accounting information systems, the quality of financial statements, income tax and sales department in Jordan.

## 1. Introduction:

All organizations are seeking to increase their profit ability and revenues through the utilization of available resources and make quick decisions based on correct and accurate information in a timely manner, which in this matter has increased the importance of management information systems, this is not limited to the private sector companies only, but also the governmental organizations are seeking to achieve the same previous goals and to contribute in the balance of payments of these organizations. Accounting information systems- as part of the management information systems- represent one of the most important systems in the economic unity and these organizations are vary among each other in terms of the application of accounting information systems and the consciousness of their importance. This study is to identify the impact of using accounting information systems on the quality of financial statements that are submitted to the income tax and sales department in Jordan and whether they have an impact on decision-making and accelerate the completion of the work of the department.

## **2. Previous studies:**

### **2.1.Kennedy D. (2013) (an Empirical Investigation of the Security of Computerized Accounting Information Systems (CAIS) in the Selected Listed Companies in Sri Lanka)**

The study examines the existence and adequacy of implemented computerized accounting information systems (CAIS) security controls to prevent, detect and correct security breaches in the selected listed companies in Sri Lanka. An empirical survey using a self-administered questionnaire has been carried out to achieve the objective. 41 out of 118 usable questionnaires have been collected to different types of companies representing 13 out of 20 sectors from 4th November to 10<sup>th</sup> December 2008. The results of the study spotlight a number of inadequately implemented CAIS security controls and significant differences among listed companies regarding the adequacy of implemented CAIS security controls. Based on the findings, some recommendations are given to strengthen the breaches in the present CAIS security controls in the listed companies. Findings of this study help accountants, auditors, managers, and IT users to better understand and secure their CAIS in order to achieve success of their visions.

### **2.2.Kaoud study (2007) with the title of (Studying and Assessing the Electronic Accounting Information System in Palestinian Companies)**

The study aimed to look in the assessing of electronic accounting information systems in shareholding companies in Palestine, in order to identify their reality in terms of the availability of quality specifications and the availability of capacity and capabilities necessary to meet the needs and desires of the users and the extent of their keeping pace with technological development. The study sample consisted of 150 joint stock public company; the study found out that we should provide quality properties in electronic accounting information systems in addition to the existence of a strong correlation between these characteristics and the need to develop the necessary controls on the powers of using accounting software.

### **2.3.Ismail & King (2007) in title of (The factor influencing the alignment of accounting information system in small and medium sized Malaysian manufacturing firms)**

The study aimed to identify the factors that affect the use of accounting information systems in factories, small and medium-sized Malaysian manufacturing firms, the study sample consisted of 214 companies that have accounting systems. The study also found out that the information systems of accounting work smoothly as they connect information from the top and bottom that help workers in companies to achieve their goals, in addition using these systems will enable companies to give accurate information to the relevant government agencies.

## **3. Study Hypothesis:**

**H1:** There is no statistically significant impact at the level of statistical significance of ( $\alpha \leq 0.05$ ) to use accounting information systems on the quality of financial statements submitted to the Income Tax and Sales Department in Jordan.

## **4. Study Variables:**

Study variables consist of: Independent variable, which is represented in using accounting information systems, while the dependent variable is the quality of data submitted to the Income and Sales Tax Department.

## **5. Search Scope:**

This research aims to indicate the importance of using accounting systems on the financial statements submitted to the Income Tax and Sales Department in Jordan, where the

companies seek to pay their due for this department, which requires from them to use the latest methods in accounting systems so as to provide accurate data to the department, on the other hand, the study aimed at using Income Tax and Sales Department of the accounting systems, in order to cope with the nature of the information submitted to it, this study has a relevant importance for the public sector companies that may suffer from the process of technological development approach, as well as this study identify the income tax and sales department staff realization of the importance of using accounting systems.

## **6. Population and the Study Sample:**

The study population consists of accountants working in the Income Tax and the main Sales Department, income tax departments and sales in the capital Amman, where the department's activity in Amman is more than 85% of the total activity of the department, 50 questionnaires were distributed to those accountants and they have been fully retrieved.

## **7. Data Collection Sources:**

In preparing this study, two types of data were relied that are: Secondary data represented in books and scientific references and previous studies on the subject of the study and preliminary data by preparing questionnaire which was designed by the researcher to distribute it to the members of the study sample.

## **8. Theoretical Side:**

### **8.1.the Concept of Information System:**

The system can be defined as "A group of associated components, which are together consist of one entity" (Al-Kurdi and Al-Abed, 2002, p 21),the components of the main system includes four components: Inputs, Processors, Output, Feedback and finally System Boundaries (Morsi, 2005, p 13), (Idris, 2005, p217) defined the information system as "A system which includes a set of elements and reactants components of the relevant reciprocity that work together to collect, operate, store, distribute necessary information for the decision-making process in the organization" and from the researcher's point of view, the information system can be defined as" A system which consists of a set of parts and procedures that interact with each other in order to collect the appropriate data, process it, store it and deliver the appropriate information in the appropriate time and place and accuracy suitable for the process of decision-making in the organization and in a form which contributes to achieve its objectives".

### **8.2. Accounting Information Systems:**

The financial job is responsible for managing financial assets, such as: feedback, inventory and other assets to organize the return on investment and the total value of the shares, it is also responsible for testing bank assets and cash flow; and from here the importance of accessing the external information has appeared. Accounting and financial information systems are the ones that keep up financial assets of the company and provide long term forecasts. (Al-Najjar, Fayez, 2005, pp. 87-88).

Others had defined accounting information systems as: a system that collects, records, stores and handles data to provide information to decision-makers through using advanced technology or simple system or in between of the two. (Romney & steinbart-2012, p 26), (Gill, 2010) defined it as a collection of parts and sub systems that are connected with each other and with the surrounding environment and operate as a single overlap relationship between each other and between the system that combine it where each part depends on the other in achieving the goals sought by the comprehensive system of accounting, in order to provide data and information to decision makers.

### **8.3. Characteristics of Accounting Information:**

In order for accounting information to achieve its desired goals, it should have the following basic properties (Ahmad, 2006):

**8.3.1. Appropriateness:** In order for accounting information to give the desired benefit, it should be appropriate for its purpose, in addition that the appropriateness is an essential requirement for the information to be used in assessing the company's administrative policies and develop planning control over it, information is appropriate and important whether its disclosed or not or have an influence on the decision of information users.

**8.3.2 Credibility:** Accounting information must contain a degree of possibility of verification or objectivity based on sufficient evidence prove and to be free from bias.

**8.3.3. Accuracy:** Failure to provide accurate accounting information which causes a lack of verification of this information, because there are mistakes that result in a discrepancy between the information processed for administrative team, which leads to an error in the transfer of information to the decision maker.

**8.3.4. Timing:** Timing is an important component to success in decision-making, as accounting information does not give benefit, if the decision maker doesn't have the right time or the delay in delivering information.

**8.3.5 Understanding and Absorption:** The impact of accounting information in the administrative decisions stands on the extent of absorption of the management team of this information, in order to be understandable, simplified and meaningful without resorting to detailed data.

**8.3.6. Importance:** Accounting information performs its role, if it has the important characteristic, that to be a source of important information for intervention in the formulation and decision-making and neglect it will lead to create a problem for it.

**8.3.7 Fulfillment:** Fulfillment standard depends on the quantity and quality of information and the extent of absorption of members of the management team in the accounting information, in order to satisfy their needs of information and give benefits that are greater than the cost of its preparation.

### **8.4. Financial Data Quality:**

The concept of accounting information systems introduce new model that achieve tremendous benefits, which force managers to change their policies in the report related to the accounting information to the beneficiaries, the quality of financial statements indicate the need of administration to communicate with shareholders to understand their needs and serve them fast and in the best possible way, also the concept of data quality defines the characteristics as the useful accounting information must be characterized. These characteristics aim to help administrators when developing accounting standards and assist accountants in the preparation of financial statements in assessing the accounting information that results from the application of alternative accounting methods and distinguish between what is a necessary clarification and what is not according to the users of accounting information (Miller, 2002).

### 8.5. The Significance of Financial Statements Quality

The significance of the financial statements can be explained through its role in decision-making, the general goal of the financial reports is to provide information for decision-making. There is a clear relationship between the entrance to the decision-making and quality standards of financial statements, where the entrance to the decision-making aimed at producing the information needed to make decisions based on that goal of accounting is to provide useful information with beneficial properties, also working through this portal requires to identify different brands of users of accounting information and determine the quality of information for each category of those different categories and this leads to increase the effectiveness of accounting information in the field of rational decisions.

The increase of the accounting information quality lead to reduce the degree of the decision maker and thus enable it to take the optimum decision that achieves the desired goal, this effect achieved in the case of the availability of cognitive science and previous experience to the decision-maker to enable it to absorb and use the information in decision-making, but when this understanding and absorb it are not available for the decision-maker's information with the availability of a high degree of financial statements quality, it increases the case of the decision maker's hesitation, in other words, making optimum decision does not only require to improve the quality of financial statements, but also requires attention for decisions makers and improve their scientific and practical level and strengthen the degree of their confidence in the quality of accounting information (Rifai , 2008, p 64 -65).

### 9. Study Sample Characteristics:

Table (1): The demographic characteristics of the study sample

Variable	Type	Repetition	Percentage
Gender	Male	45	90%
	Female	5	10%
<b>Total</b>		50	100%
Age	Less than 25 years old	5	10%
	25-34 years	38	76%
	35-44	7	14%
	More than 45 years	0	0
	<b>Total</b>		50
Practical Qualification	Diploma	0	00
	Bachelor	42	84%
	Master	8	16%
	Doctorate	0	0
	<b>Total</b>		50
Experience	Less than 5 years	19	38%
	5-10 years	31	62%
	11-15 years	0	0
	16 years and over	0	0
	<b>Total</b>		50

We note that 90% of the study sample are male, in contrast the female ratio was 10% and that 76% of respondents were between the ages of 25-34 years, while 14% of respondents were between the ages of 35-44 years, while the qualifications, the percentage is 84% of the sample were bachelor's degree holders and the rest were Master's degree holders by 16% and there is not any responder from the holders of diploma or doctoral, finally, we note that 38% were less than 5 years of experience and that 62% of respondents experience ranging from 5-10 years and none of them have more than 10 years of experience.

## 10. Stability Test:

Cronbach's alpha test was used to measure the stability of the measuring tool as the value of  $\alpha = 73\%$  which is an excellent rate being higher than the acceptable 60%, as illustrated in Table (2)

**Table (2): Test Persistence  
Reliability Statistics**

Cronbach's Alpha	N of Items
0.713	14

## 11. Analysis of Data Related to the Study

In order to describe the impact of accounting information systems on the quality of financial statements submitted to the Income Tax and Sales Department, the researcher extracted the arithmetic mean and standard deviation to describe the study sample answers as illustrated in the following table:

**Table (3): The arithmetic mean and the standard deviation of the sample answers**

No.	Paragraph	Arithmetic Mean	Standard Deviation	Ranking
1	The hardware and software used in the accounting information system is the best and the latest currently available.	4.32	0.97	10
2	The hardware and software used in the accounting information system characterized by enough speed in the process of enter and retrieve information.	4.68	0.55	5
3	Dealing with the hardware is easy and does not require a high degree of complexity.	4.84	0.37	1
4	The used equipment provides the desired goals of the accounting information system in its best form.	4.61	0.60	6
5	Workers of information system enjoy a level that commensurate with the tasks required of them.	4.22	0.78	11
6	Workers' qualifications in the information system commensurate with the nature of the work assigned to them.	4.48	0.73	8
7	Working individuals in the information system enjoy a high efficiency in dealing with the available devices.	4.74	0.48	3
8	New employees in the information system receive necessary training, so that they can deal with existing hardware and software.	4.44	0.73	9
9	Hold training courses for workers in the information for new information system when needed.	4.76	0.51	2
10	Information system members are keen to gather the information that recognizes the external environment and competitors.	4.60	0.88	7
11	Automated accounting information systems contribute to make its information outputs more capable for understanding by decision makers.	4.72	0.60	4
12	Automated accounting information systems contribute to make the information outputs of more capable for comparison.	4.00	1.12	13
13	Automated accounting information systems contribute to make the information outputs more credible.	3.86	0.75	14
14	Automated accounting information systems contribute to make the information outputs more suitable for decision-makers.	4.18	0.71	12
Total		4.46	0.37	High / Important

We note that the degree of measurement for all paragraphs is high and the arithmetic mean ranges between (3.86-4.84), paragraph no. (2) came in the first place with a value of



(4.84), paragraph (13) came last with a value of (3.86), the sum of the arithmetic mean of all the paragraphs came with a value of (4.46) and with a high value.

## 12. Study Hypothesis Test Results Using Simple Regression:

**Table (4): The results of a simple regression test of the impact of using accounting information systems on the quality of financial statements submitted to the Income Tax and Sales Department**

Independent Variable	Sig.	R <sup>2</sup>	Calculated F	Indexed F	Statistical Decision
Accounting Information Systems	0.000	0.221	3.686	2.0096	Rejection of null hypothesis

It is clear from the data included in the previous table (3) that the value of calculated (T) is (3.686) while its indexed value is (2.0096), and comparing the values that have been reached in the test of this hypothesis, it is clear that the calculated value is greater than the indexed value, so the null hypothesis is being rejected and accept the alternative one which states that "There is an impact of using accounting information systems on the quality of financial statements submitted to the income and sales tax department in Jordan" and this is confirmed by the value of significance (Sig.) amounting to zero, as it is less than 5%.

## 13. Conclusions and Recommendations:

### 13.1. Conclusion:

1. The researcher found out that there is an impact for the use of accounting information systems on the quality of the data submitted to the Income Tax Department in Jordan.
2. Based on the previous result, they suggest that the Income Tax Department in Jordan is using accounting information systems in the performance of its business and which reflected positively.

### 13.2. Recommendation:

1. The researcher recommends the development of software and hardware used in the information systems and the training of personnel in the harmonization of accounting information systems.
2. Interest to participate in the preparation of accounting systems and programs that help in the fast performance of the work in the department.

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# FINANCIAL RESOURCES AS A FACTOR INFLUENCING ADOPTION OF INNOVATIONS ALONG MANGO VALUE CHAINS IN MERU COUNTY, KENYA

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## Abstract

The study has used a descriptive survey design. The study was carried out in Meru County. The study area was limited to the lower part of Meru County whose climatic condition is suitable for mangoes production. This study adopted a probability sampling method to select the respondents for the study. Out of 13,574 farmers, traders and exporters, 447 farmers, 12 traders and 2 exporters were randomly selected for interview. Secondary data used in the study was collected from the Ministry of Agriculture Offices while primary data was collected from the respondents using a structured questionnaire with both open and close ended questions. To ensure validity and reliability, the researcher pretested the questionnaire and supervised the data collection. In this study, both qualitative and quantitative data were used in the analysis. Quantitative data obtained from the field was analyzed using descriptive and inferential techniques. The descriptive techniques adopted were means and frequencies while the inferential technique used were regression and correlation to establish relationship between variables in the study and inferences made. Frequency tables and charts were used to present the findings.

The study found out that there were financial constraints as a result of low income due to reduced mango prices and lack of financial support to farmers. The study also found out that although majority of the growers and traders were aware of new innovations, they had not adopted the innovations due to lack of financial resources. Chi-square results show that financial resource has a significant association with innovation in Mango value chain as shown by a value of 120.981 at ( $p \leq 0.001$ ).

The researcher concludes that with such a steady growth in yields and development in mango farming in Meru County, Kenyan mango supply chain appears to be promising, and especially, in the adoption of new innovations. However, there is need for the government to employ strategies that will see farmers get incentives on their farm produce as well as financial support from financial institutions; there is also need to train the growers on entrepreneurship.

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**Keywords:** Value chain, financial resources, agriculture, mango, adoption, innovation

## Introduction

The growth in agriculture has been on the decline in recent years. This has affected fruit farming in the country, which has also continued to decline just as the country's general economy (World Bank, 2007). The Government of Kenya has put in place and proposed a strategy for revitalizing agriculture, 2004–2014 with the aim of raising the sector's growth rate, reduction of unemployment and poverty. This revitalizing agriculture strategy aims at achieving the country's Millennium Development goal of Poverty Reduction (Horticulture Crop Development Authority, 2008).

The agriculture industry is a major player in Kenya's economy. It contributes about 26% of the Gross Domestic Product (GDP) and a further 27% through linkages with

manufacturing, distribution and service related sectors. Agriculture provides a livelihood for about 70% of the population. The main food crops grown in Kenya are maize, wheat, sorghum, millet, cassava, Irish and sweet potatoes, bananas, mangoes and other fruits and vegetables (HCDA, 2008). The Government of Kenya has put in place and proposed a strategy for revitalizing agriculture, 2004 –2014 with the aim of raising the sector's growth rate, reduction of unemployment and poverty. This revitalizing agriculture strategy aims at achieving the country's Millennium Development goal of Poverty Reduction (HCDA, 2008).

Despite the strategy, the agricultural sector continues to face major challenges affecting the value chain mainly due to poor productivity, poor land use, lack of markets and value addition. The improved processes at all stages of the value chain, from the farm to the consumer, will make significant contributions to an efficient and effective enterprise, with increased profitability at the small-scale production level and at the same time avail quality and safe mangoes and mango products to the Kenyan consumers at affordable prices. According to the Republic of Kenya (2009), value chain analysis can strengthen the innovation process by determining the contribution of each actor with a view to maximizing synergies and complementarities between actors.

### **Problem Statement**

Mango processing in Kenya has not expanded, and only a negligible share of total production is currently processed. Only one relatively large-size mango processing firm based in Coast Province processes local products. Other local juice and jam makers import mangoes in the form of concentrates mainly from Mauritius, Egypt and South Africa. In principle, therefore, there is potential for increasing the processing of local products. Local production, however, is of low quality. Ninety-five percent of mango produced in Kenya is made up of indigenous varieties. In regard to this, there is need to adopt new innovations along mango supply chain to improve both the production and processing (FAO, 2008).

Mangoes in Meru County have been grown for over fifty years. During every mango harvest season, 39% of mangoes go to waste by rotting, (ABD/DANIDA survey report, 2010). Innovations to arrest this situation exist in the country and outside the country (Owino, 2009).

A study by Nchinda and Mendi in Cameroon found out that Sex, Start capital and education level influenced adoption. Other studies by Mussei et al. (2001) in Tanzania, Getahun et al. (2000) in Ethiopia and Abd El-Razek (2002) found factors such as financial resources and training influenced technology adoption. From researcher's observations, no study has been done in the Kenyan context and especially among mango farmers to try and establish the factors affecting adoption of technologies along the mango value chain.

The purpose of the study was :

To determine whether financial resources influences adoption of innovations along the mango value chain in Meru County.

### **Hypothesis**

H<sub>0</sub>: Financial Resources is not associated with innovation, and

H<sub>1</sub>: Financial Resources is associated with innovation.

### **Review of Related Literature**

Financial resources amongst mango farmers are mostly from income got from selling the mangoes to the market. Income is the most important indicator of the economic status of a farmer. It is, however, difficult to collect reliable information on income from farmers. This is one of the reasons why fewer studies have attempted to relate income to the adoption behavior of farmers (Shahin, 2004). Various studies however have examined the relationship between the two variables and found income to be positively related with the adoption of agricultural innovations.

Studies by, Abd El-Razek (2002) in Iraq on adoption of technology in Wheat crop, Mussei et al. (2001) in Tanzania on improved Wheat, Getahun et al. (2000) in Ethiopia on improved maize farming and in Tanzania on use of fertilizer, Negatu et al. (2000) in Ethiopia on improved Wheat, Lemma and Trivedi. (2012) in Ethiopia adoption of improved dairy husbandry and Ayuk (2012) in Burkina Faso on adoption of live hedges reported a significant positive relationship between the two variables. On other hand few studies stated no relationship between the two variables. Example of these study were, Alsakran (2001), El-Gannam (2000), Madhukar and Ram (2003), and Shahin et al. (2004).

According to Shahin (2004), farmers who have access to credit can relax their financial constraints and therefore buy inputs. It is expected that access to credit will increase the probability of adopting technologies. Mussei et al. (2001) in Tanzania, found all non-adopters (95%) of adopters had difficulty obtaining credit.

Bulale (2000) found the effect of credit, measured as a credit provided for households, was exclusively used for crop production inputs (mainly for fertilisers), and hence had no significant influence on the adoption of all dairy production technologies studied.

In Rwanda in Kiruhura district, however, 55% of the farmers interviewed stressed that access to credit was one of the key factors that limited their intake (Nsabimana & Masabo1, 2005).

Odoemenem and Obinne, (2010) in Nigeria, found out that the cereal farmers who accessed credit adopted more of the innovation than those who did not. The credit was to facilitate buying of inputs and improve management practices. The above studies show that access to capital is key to adoption of innovation.

## Methodology

This research was guided by the methodology used by Nchinda and Mendi (2008) in the study of yoghurt technology adoption in the western highlands of Cameroon.

## Research Design

This study assumed participatory action to pretest the questionnaires. Baseline survey was done.

The study districts included the former Meru Central and Meru North Districts currently known as Meru County. The County lies to the east of Mt. Kenya whose peak cuts through the southwest border of the County. To the North East it borders Laikipia county, to the West it borders Nyeri and Kirinyaga counties, Tharaka Nithi county in the south and Isiolo county to the north.

## Participant (Subject) Characteristics

The study was concentrated on seven divisions, which are highly productive in mangoes as shown in Table 1.

**Table: 1 Study Areas (Survey figures, 2010)**

Meru County	Study divisions	Area under mango per ha.	Production in Mt (2010)	Number of farmers
	Imenti North	275	2,586.97	910
	Meru Central	1289	14,553.97	4,347
	Imenti South	73	1,011.11	516
	Igembe South	278	3,120.14	4,023
	Igembe North	71	637.37	2,176
	Tigania West	106	783.06	1,074
	Tigania East	31	170.34	396
<b>Total</b>		<b>2,123</b>	<b>22,862.96</b>	<b>13,442</b>

Source MOA, 2010

The study area was limited to the lower part of the County whose climatic condition favors the production of mangoes. The population of the study included individual mango farmers, traders and exporters in Meru County. The mango farmers are approximately to be 13,442, traders are 120, while exporters were 12 (MOA Survey, 2000). Therefore, the target population for the study was 13,574 traders, farmers and exporters.

### Sampling Technique

The Population of Mango farmers in the county was estimated at 13,454. Since the population is large (above 10,000), the following formula was adopted to calculate the sample size of farmers.

$$n = \frac{N}{[1 + Ne2]}$$

A sample size of 447 mango farmers/ growers was established.

A stratified random sampling technique was used to get a sample size of traders and exporters since the target population was not homogeneous. The researcher therefore sub-divided it into groups or strata in order to obtain a representative sample. From the above population of thirteen thousand five hundred and seventy four, 10% from both traders and exporters, giving each item in the population an equal probability of being selected. This generated a sample size of 461 respondents from whom the study sought information. Table 2 below gives summary of the sample size.

**Table 2 Sample Size**

Sections	Population (Frequency) (N)	Sample Ratio	Sample (n)
Traders	120	0.1	12
Exporter	12	0.1	2
<b>Total</b>	<b>13,574</b>		<b>461</b>

The questionnaires were then distributed through the ministry's division headquarters. Out of the target population, 447 questionnaires were administered to 447 farmers, 12 traders and 2 exporters. Out of the 447 questionnaires distributed, 296 questionnaires were returned with 283 coming from farmers, 12 from traders and one from an exporter.

### Measures and Covariates

Primary data (mainly information on factors influencing adoption) were collected from the respondents through questionnaires. Structured questionnaire with both open and close ended questions were the key instruments used in collecting primary data from the respondents. The questionnaire was pre-tested before being administered to the respondents to ensure validity and reliability.

Quantitative data obtained from the field was coded using the SPSS and analyzed using descriptive and inferential techniques. Descriptive techniques were adopted using frequencies to show the tendency of occurrence between study variables. Inferential techniques like regressions were used so as to establish the relationship between variables in the study and inferences made.

A logit analysis was used to determine whether adoption of innovation is influenced by financial resources. Logit regression is used to determine the probability of occurrence of an event with the presence of its determinants by fitting the data on a probability curve. A Logit model was found suitable by Nchinda and Mendi, (2008) who used the same approach to investigate the factors influencing adoption of milk technology in Cameroon.

The Logit model was conducted by transforming 'innovation adoption' variable into binary (1 = adopted innovation, 0 = has not adopted innovation). Logit regression was

preferred as it is not affected by other factors such as serial autocorrelations and would, thus, have a better presentation of the prediction.

Innovation (I) was the dependent variable while, financial resources (X1), was the independent variable. These variables were measured based on the respondents' agreement or disagreement with the variable indicators whereby agreement was accorded value 1 and disagreement value 0. The analysis was done as shown below:

$$P(Y = 1|X_1, \dots, X_p) = \frac{e^{\alpha + \sum_{j=1}^p \beta_j X_j}}{1 + e^{\alpha + \sum_{j=1}^p \beta_j X_j}} \dots \text{eqn 1.2}$$

Where

Y = the dependents variable (Adaptation of mongo technology - yes/no by farmers)

Xi's=Independent Variables (Financial Resource)

α = Constants

βj = parameter estimates corresponding to Xj's.

e = exponential (constant = 2.71)

**Results**

On financial resources, the study shows that 7.4% of growers earned a net income of less than Ksh 10,000 per acre per year while, 41.3% of growers earned a net income, of between Ksh 10,001 and 20,000. Majority (51.3%) of the growers earned more than Ksh 20,000 per annum. The study reveals that the higher the net income (more than ksh 20,000 per acre, per annum), the higher the adoption rate (59%). The less the net income per acre, per annum (Ksh 10,001- 20,000), the less the adoption rate (24%). However, 43% of the growers did not adopt the innovations and 57% adopted the innovations. This is confirmed by other results which show that growers do not easily access formal or informal credit and the alternative income they get, is not invested in the mango value chain for innovations.

Results from the trader/exporter, shows that 23.1% of traders/exporters earned a net income of Ksh10,000 per year. While, an equal percentage of trader/exporter earned net income of Ksh10,001 and Ksh 20,000. Majority (53.8%) of trader/exporter earned income of more than Ksh 20,000 per year. The higher the net income (above Ksh 20,000), the higher the adoption (71%). The less the net income (Ksh10,001- 20,000), the less the adoption (33.3%).

The study further shows that 62% of trader/exporter adopted innovations and 38% did not adopt innovations. Comparing both the grower and traders/exporters, indicates that the higher the net income, the higher the adoption and vice versa. The trader/exporter had high (62%) adoption rate, while the grower had 38% adoption rate. So, one could conclude that financial resources greatly influence innovation adoption.

**Inferential Analysis**

The study conducted a logit regression analysis to establish the relationship between the independent and dependent variables. The objective was to show the relationship between financial resources, entrepreneurial skills and the adoption of innovations along the mango value chain. The same approach was used by Nchinda and Mendi, (2008). This study by Nchinda and Mendi, (2008) has been critically reviewed in the literature as it guided our study methodologically. Table 3 indicates the summary of logit model.

**Table 3: Logit Model Results**

Model	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
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Model 1	373.193 <sup>a</sup>	.065	.086
Model 2	5.004a	0.572	0.807

The  $-2 \times \log$  likelihood (373.193) in the Logit model summary (Model 1) is used in comparisons of nested models. Cox and Snell and Nagelkerke R-square had values of 0.065 and .086 respectively. The study gives two measures of R-square which show a low goodness of fit in the regression model. That is, the Logit model has a low coefficient of determination and the independent variables would cause a paltry 6.5% or 8.6% variations in technology adoption. The compliments of these percentages are caused by other factors not in the Logit model.

In model 2, the  $-2 \times \log$  likelihood value of 5.004 was established. Cox and Snell and Nagelkerke R-square had values of 0.572 and 0.807 respectively. These two R-square values illustrate a high goodness of fit in the Logit model. The Logit model shows that 80.7% variations in innovation adoption is brought about by variations in the independent variables. As shown by the Table below, financial resources, of traders/exporters would create more innovation than it would for growers.

**Table 4: Logit Model Coefficients**

		B	S.E.	Wald	Df	Sig.	Exp(B)
Model 1: Growers	Financial Resource	1.228	.304	16.320	1	.000	3.413
	Constant	-1.148	.776	2.187	1	.139	.317
Model 2: Traders/ Exporters	Financial Resources	19.286	21800	0	1	0.999	2.38E+08
	Constant	42.365	57340	0	1	0.999	2.51E+18

a. Variable(s) entered on step1: Financial Resources

From Table above, the Logit model (Model 1) becomes:

$$\text{Logit (I)} = I/(1-I) = -1.148 + 1.228(\text{Fin})$$

Model 1 reveals that finance, holding other factors constant, would lead to a 1.228 factor increase in innovation adoption. Financial resources have a significant positive effect on innovation. This means that growers with high financial resources would be more innovative.

From second Logit model (Model 2) becomes:

$$\text{Logit (I)} = I/(1-I) = 42.365 + 19.286(\text{Fin})$$

The Logit model 2 shows that, when other factors are held constant, financial resources would increase adoption of innovation by 19.286 This depicts that, financial resources increase adoption of innovation. However, these results are not significant and cannot be relied on as population parameter as shown by the p-values. For traders/exporters, these factors do not independently influence innovation to any degree of certainty.

**Chi-square test**

Chi-square test was used to determine whether an association (or relationship) between independent and dependent variables in the sample is likely to reflect a real association between these variables in the population.

**Table 5 Chi-Square – Innovation and Independent Variables**

			Value	Degrees of Freedom (df)	Asymp. Sig. (2-sided)
Model 1	Financial Resources	Pearson Chi-Square	120.981a	20	.000
		Likelihood Ratio	63.680	20	.000
		Linear-by-Linear Association	13.713	1	.000
		Likelihood Ratio	37.309	15	.001
		Linear-by-Linear Association	.097	1	.756
Model	Financial	Pearson Chi-Square	8.580e	6	.199



2	Resources	Likelihood Ratio	11.134	6	.084
		Linear-by-Linear Association	3.357	1	.067

On model 1 for growers, financial resource has an association of innovation in Mango value chain. This is shown by a chi-square value of 120.981 at ( $p \leq 0.001$ ). A linear by linear association exists as indicated by a value of 13.713 at ( $p \leq 0.001$ ). The null hypothesis one is thus rejected and alternative hypothesis accepted.

In traders/exporters perspectives, (Model 2) indicates that financial resource has no chi-square association with innovation in Mango value chain. This is shown by a chi-square value of 8.580 at ( $p = 0.199$ ), that is.  $p > 0.05$ . A linear by linear association between the two variables does not exist as indicated by a value of 3.357 at ( $p = 0.067$ ).

## Discussion

The study results show that 44% of the growers adopted the innovations and 57% did not adopt the innovations. While, 62% of trader/exporter adopted innovations and 38% did not adopt innovations. Comparing both the grower and traders/exporters, indicates that the higher the net income, the higher the adoption and vice versa. The trader/exporter had high (62%) adoption rate, while the grower had 44% adoption rate. It can therefore be concluded that financial resources greatly influence innovation adoption. According to Shahin (2004), farmers who have access to credit can relax their financial constraints and therefore buy inputs. It is expected that access to credit would increase the probability of adopting technologies. The findings of this study are in line with those of Abd El-Razek (2002) in Iraq, Mussei et al. (2001) in Tanzania, Getahun et al. (2000) in Ethiopia and Ayuk (2012) in Burkina Faso had examined the relationship between the two variables and found income to be positively related with the adoption of agricultural innovations.

## Conclusion

Financial resources were found to have a positive significant effect on innovation. Financial constraints are as a result of low income due to reduced mango prices and lack of diverse markets. Mango farmers in Meru County also lack financial support from financial institutions. The low price of mango produce is the cause of farmers' diversification to other income generating activities such as dairy farming and other alternative businesses. The local financial institutions should make deliberate attempt to go to the rural areas to educate growers and traders/exporters on investments and financing of the investments.

## Acknowledgements

Thanks be to the Almighty God for giving me good health and the opportunity to study. This should not be taken for granted. Secondly, sincere thanks goes to my supervisors Dr. C.Ombuki and Dr. D.Mbogori for their ever timely advice. Their insightful comments helped immensely in shaping this thesis. However, any shortcomings in this work are solely mine. I am equally extending my gratitude to the MT. Kenya University for administrative assistance. Worthy mentioning too are the men and women who helped in typing, editing and printing this document. To all I return every bit of thanks. Finally, I salute the members of my family for moral, material, financial support and patience.

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## RESULTS OF EDUCATION AT A MARKETING APPROACH

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### Abstract

It is determined that a marketing approach provides for an orientation of managing subsystem when solving any tasks for a consumer. Developed a simplified model of quality management in the quality assurance system of higher education on the basis of EFQM. Revealed reasons and factors leading to move from a qualified approach in the occupational education to competence one. Developed a model of the results of education with a position of competence approach. There has been substantiated a possibility of use of a category "education of a graduate" as measures of achieving the results of education at marketing approach.

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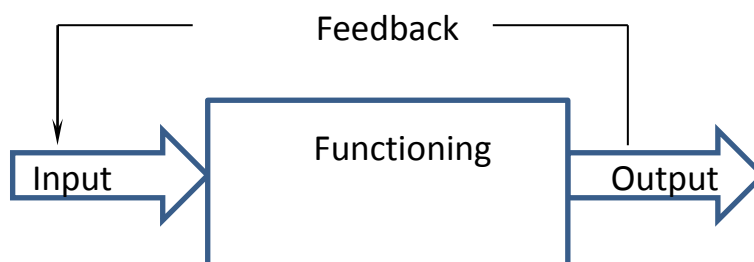
**Keywords:** Education of a graduate, results of education, marketing approach

### Introduction

The International Standart Organization (ISO) determines a quality as a total of natures and qualities of productions or services which give them some abilities to meet conditioned or assumed needs. Each of organizations, by acting as a supplier, has got five groups of interested people. Quality management is connected with finding a compromise between all these interested peoples.

On the basis of study of literature of strategy marketing (Fakhrutdinov R.A., 2000, Shmelev N.A., Wahanov A.S., Danchenok L.A., 2004.and etc.) we had determined that the marketing approach provides for an orientation of managing subsystem when solving any tasks for a consumer. Priorities of choice of criteria of marketing are the rising of quality of an object as per the needs of consumers, economy of resources at consumers at the expense of a rising of quality of products and etc. Of course, a term "product" is not acceptable to educational activity since in an educational establishment occur not "making", but formation of learners, thus this educational activity will be a business process. At the modern stage was born a new conception of management – controlling, appeared as a reply for the necessity of systemic integration of various aspects of management of business processes: "controlling ensures a methodical and tool base for supporting (including "computer") of main functions of management: planning, control, account and anaysis, alos estimation of situation for accepting managerial solvations" (Karminskiy A.M., Olenev M.I., Primak A.H., Falko S.H., 1998).

In connection with the said before a simplified model of management of quality of higher education can be represented as a scheme (figure 1).



*Figure 1 A simplified model of quality management in the quality assurance system of higher education on the basis of EFQM*

A use of marketing in quality assurance of education will promote to solve the following tasks: determination of need in the graduates of educational establishments of this profile; determination of more required occupations; determination of a list of required educational services and etc., thus a fruitful one is the considering of quality within marketing: determination of market demand for products: determination of requirements to a quality of products; analysis of a contract. The shown parameters had been accepted by us as input ones to the worked out model of quality assurance.

This article is meant to *output* parameter of this model.

### **Qualification as a component of the results of**

As we know, the requirements to the graduates' qualification of higher education schools were put in qualification (skilled) characteristics of a graduate, approved by an authorized body in the field of education (Ministry) as a guiding instrument. In terminology dictionaries "qualification" is discussed as "readiness of an individual for occupational activity; an employee has a knowledge, skills and talents needed for doing a certain work by them" (Occupational education. Dictionary. 1997), as "totality of an employee's qualities describing the volume of their occupational knowledge and work skills which they must have got for work activity in a concrete working place" (Shatalova N.I., 2006). Qualification confirmed the readiness of the student for doing occupational tasks and conformity of the obtained knowledge with the requirements of state education norm. Since the qualification had been confirmed by the state examination commission, created at a higher educational school, then as both confirmation and affirmation (approval) of it was carried out in the educational field. In connection with this there was a situation, at which a graduate from an educational establishment studied in the conditions of a real production. Such a model of estimation of occupational qualities is named a control of "output", but an approach can be named qualification one. At the qualification approach the professional educational program is shown with the objects (subjects) of labor, complies with to their characteristic. At the same time are not formed knowledge and abilities required for a life activity of a man in all their appearances.

However one should take into account of the fact that in European educational space there was a swift from control "inputs" to monitoring and control "outputs" of educational process. A new paradigm of education is founded in the methodology of projecting an education at which one of the most important structural elements of higher education *are the results of education*. If before the indexes of efficiency of educational work in higher schools were the planning and realization of educational process (educational, educational-methodical work and etc.), but now according to this methodology it is needed *the results of education*: formed at students knowledge, competent ion and skills, at the same time are taken into account of both formal and informal kinds of teaching and self education.

What made (reasons and factors) to move *from qualified approach* in the occupational education *to competence one, in what need* of movement from notion "qualification" to "competence" one?

On the basis of the analysis of literature one can know show the following reasons and factors.

1. *Change of labor conditions*: "New conditions in the field of labor has an influence on the purpose of teaching and preparation in the field of higher education. A simple completion of the content of educational programs and increasing work loads for students can not be a realistic solution. Thus are preferable those subjects which improve students' intellectual abilities and allow them to approach reasonably to technical, economical and cultural changes and variety, will enable to obtain such qualities as initiative, a spirit of entrepreneur and adaptability, also allow them to work with confidence in a modern production field" (Reforms and development of higher education, 1995).

2. *Increase in a volume of cognitive and informational flows* both in production and life, in the end of that the obtained occupational qualification, as a result of the obtained qualification, there appeared new requirements to graduates of higher schools, between which more priorities obtain the requirements of systemic organized intellectual, communicative, reflexive, self-arrangement, moral beginnings that allow to organize successfully an activity in wide social, economical, cultural contexts. The required will be an ability of personality to be ready to changes in occupational field for the course of all life. With the pedagogical point of view the qualification *is not enough an adequate measure for projecting results of higher education*.

3. *Uncertainty as a result of changes in economy*. B.Bergman writes: "In the new time there had been appeared an complex problem of development of human resources of work. The working world reached at this time a high level of flexibility. Traditional sources competitions went to background, and in the agenda there are new requirements. Increasing speeds of changes in economy, more and more beginning of automated and communicational technologies, equal as a globalization, will lead to uncertainty. Is being lost identification of stable occupations, professions as short term "package of competence" are mutating. Temporality of work (instability of it's) is a working model of the future. In these conditions the ability to studying and readiness for studying will be as the most abilities" (B.Bergman, 1999).

4. *Job placement*. At the present in Euro union general known components at the level of personality are: knowledge, ability, skill and endurable competences which are understood the ability of man to reply to challenge of time adequately and with responsible. By forming these qualities, the system of occupational education will prepare occupational staffs for the labor market. This has been confirmed by European ministers too, responsible for higher education at the conference in Leven: "The Labor Market is more accounts on the more higher level of qualification and competences, thus the higher education has to arm the learners with leading knowledge, skills and competences in all the course of their occupational life. Job placement " will enable a man to use fully opportunities in the changing market of labor" (Communiqué Conferences of European ministers, responsible for higher education, 2009).

5. *Requirements of stakeholders*. In connection with the said before employers will form requirements to employees not so much in the format of "knowledge, abilities and skills", how much in terms of "abilities of activity". Thus in education occurs re-orientation of estimation of the results of educational activity of a learner's with from the notions of "knowledge, ability, skills" to the that one of "competence". So, switch to the competence approach one need to consider as an attempt to make the education in a higher school conformity with the needs of the labor market.

### **Shift from qualified approach in the occupational education to competence one**

According to the purposes of the Bologna process it's supposed to build "a system of comparative and comparable qualifications of higher education, in which the qualifications would have been described in terms of educational loads, level, the results of studying, competences and profile". In such a way there will be change of educational paradigm to personal-orientated, the main component of which are key competences. This paradigma supposes to change the accents from the course of education (educational programs, students' academic progress) to competence approach, when for the first plan comes out *the problem* occupational and personal readiness for students' employment that must be a criteria of the result of education. In these conditions the mechanism of quality assurance will become a central component of a similar management of a system of education "on results".

In the literature one can meet a definition of *occupational* (professionally oriented), *general* (key, base, universal, trans-subject, meth professional, enduring, over occupational, main and etc.), *academically and other competences*.

The occupational competences are a readiness and ability to act purposefully according to the requirements of affair, methodically organized and independently solve tasks and problems, also self estimate results of it's activity (Rahmenlehrplan fur den Ausbildungsberuf// Berufskratfahrer,2000). In connection with it, that the occupational competences cover qualification and a part of total competences required in any activity.

Together with that it is need to understand that the total competences includes enduring (professional, meth professional and others.) competences which determine systemic-social qualities of personality of a student, forming which will promote to study in a institute of education. In the basis of the said before the parameter of the output to the model of management of quality one can imagine such a way, how it's represented in the figure 2.

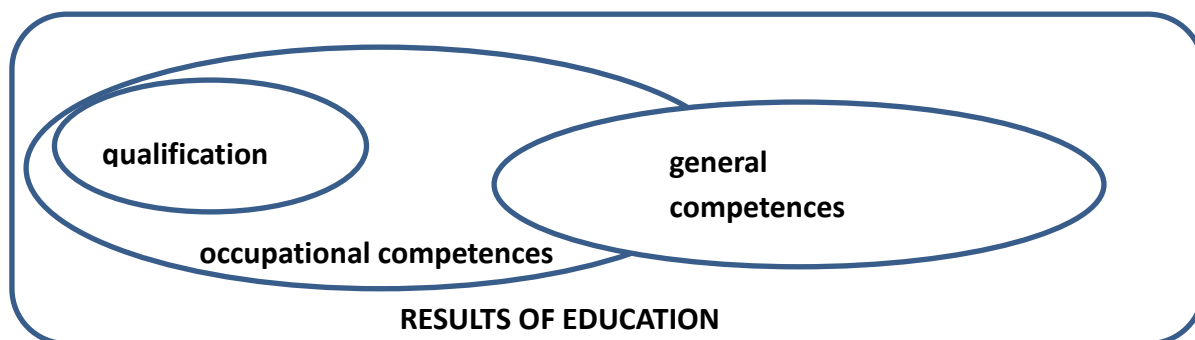


Figure 2 A model of the results of education with a position of competence approach

### Conclusion

A question of competences and qualifications is a one about the purposes of education which are an active kernel of a norm of education quality, it's standards. By taking into account of that the results of education are represented as confirmations of that students having obtained a certain qualification or completed a program or it's elements, have to know, understand and be able to do, education of an graduate of an institution of education at marketing approach one can determine as a measure of reaching the results of education according to the requirements of stakeholders.

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# THE REGIONAL DISPARITY BETWEEN THE SOUTH AND THE NORTH OF ITALY

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## Abstract

This paper tries to contribute to the research of the problem called Questione Meridionale focusing on the regions with GDP lower than 75% of the EU-27 average. It observes the development of the regional unemployment rate focusing mainly on the period of the recent financial and economic crisis and compares to the development of chosen regional aggregates. The paper tries to answer the questions on the relationships between the regional unemployment rate and GDP per capita, number of violent crimes per 10 000 inhabitants, percentage of employment in High-Tech sectors as a proxy to the investment, percentage of employment in knowledge-intensive services as a proxy to human capital and number of patents applied to European Patent Office as a proxy variable to innovation. This paper uses quantitative methods of research with secondary data from databases. The data series are analyzed and using the methods of comparison and synthesis the recommendations are worked out. The interdisciplinary approach is used in this paper. It draws upon research in regional studies, economic policy, geographical economics and management. The labor market of the regions of Mezzogiorno is much more inflexible than in the northern regions, whose long-term unemployment ratio now approaches the ratio of Mezzogiorno regions as a result of the economic crisis of 2009. The hypotheses about the relationships between the chosen variables are for the majority of monitored regions proved, but with low statistical significance. The highest parameter Beta was calculated for Sicily. So the investment there in High-Tech sectors and knowledge-intensive sectors might have the highest effects.

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**Keywords:** North-South divide, unemployment rate, regional GDP, employment in High-Tech sectors and knowledge-intensive services, patents

## Introduction:

The Questione Meridionale has a long period of persistence. It is not certain if the lagging of the southern economy started in the Middle Ages, but the existence of the “two Italies” was imminent. (Malanima, 2009) At the time of Risorgimento the South of Italy was one of the poorest regions of Europe. (Reis, 2000) In 1860 the GDP of Northern Italy was 15-205 times larger than the GDP of the South. The gap between the north-western industrial triangle and the predominantly rural South even widened during the period of 1871-1951. Between the 1st World War and the 2nd World War the gap expanded even more. Only after the 2nd World War, there was registered quite a high growth rate of the southern economy, but the North has the growth rate even higher. The visible improvement since 1990s was mainly thanks to the EU institutional implementation, operational programs and a better law enforcement. Only around the year of 2000 some regions from the south, i.e. Abruzzi and Molise, was little bit closer to the northern counterparts. The convergence process was also successful in the region of Sardinia and Basilicata. (Cohen and Federico, 2001) So the paper is focused mainly on the poor part of Mezzogiorno: Sicily, Calabria, Puglia and Campania, with GDP per capita lower than 75% of the EU average, compared to two northern regions: Piedmont and Lombardy.

OECD identifies some key determinants of regional growth, i.e. a provision of infrastructure, investment in human capital, innovation and research and development and integrated regional policies. The infrastructure alone is not enough to kick up the economic growth, only together with appropriate level of human capital and innovation activity. The key role of the infrastructure, education and the endowment of human capital, are stressed in many articles. (Fabiani and Pellegrini, 1997, or Tondl, 1999) Also investments in research have a positive influence on the patent creation. The inter-regional influence (the transmission of the growth to the neighboring regions) is quite important factor to increase the regional growth. (OECD, 2009) The first step into the backwardness was much stimulated by the protectionist policy. (Gagliardi and Percoco, 2011) Some authors take infrastructure, financial system evolution, enforcement of laws (using the crime levels as proxy), government help levels and the economies from regional agglomeration as variables into their model of regional development with the explained variable of total factor productivity (TFP). (Aiello and Scoppa, 2000)

This paper uses in the simple linear regression models estimated by OLS method regional unemployment rate as an endogenous variable and exogenous variables: number of violent crimes per 10 000 inhabitants, percentage of employment in High-Tech sectors as a proxy to the regional investment, percentage of employment in knowledge-intensive services as a proxy to human capital in the region and number of patents applied to European Patent Office as a proxy variable to the regional level of innovation. The aim of the paper is to formulate probable hypotheses about their relationships and to suggest possible recommendations to the regional policy that comes out from the regression results. This paper uses quantitative methods of research with secondary data from the range of 1995 to 2009 from ISTAT and EUROSTAT databases and for the analysis using comparative methods of correlation.

However, the extent of this paper does not allow proving the correlation or regression results.

## I.

The hypotheses about the relationships between the variables from the researched literature are summarized in the table no. 1.

**Table no. 1:** Hypotheses about the relationships between the selected variables to unemployment rate

	Proxy to	Expected relationship to unemployment rate
<b>GDP/capita</b>		<b>negative</b>
<b>no. of violent crimes per 10000 inhabitants</b>		<b>positive/negative</b>
<b>% of employment in the High-tech sectors from total employment</b>	investment	<b>negative</b>
<b>% of employment in knowledge-intensive services from total employment</b>	human capital	<b>negative</b>
<b>no. of patent applications registered at European Patent Office (EPO) per million of workforce</b>	innovation	<b>negative</b>

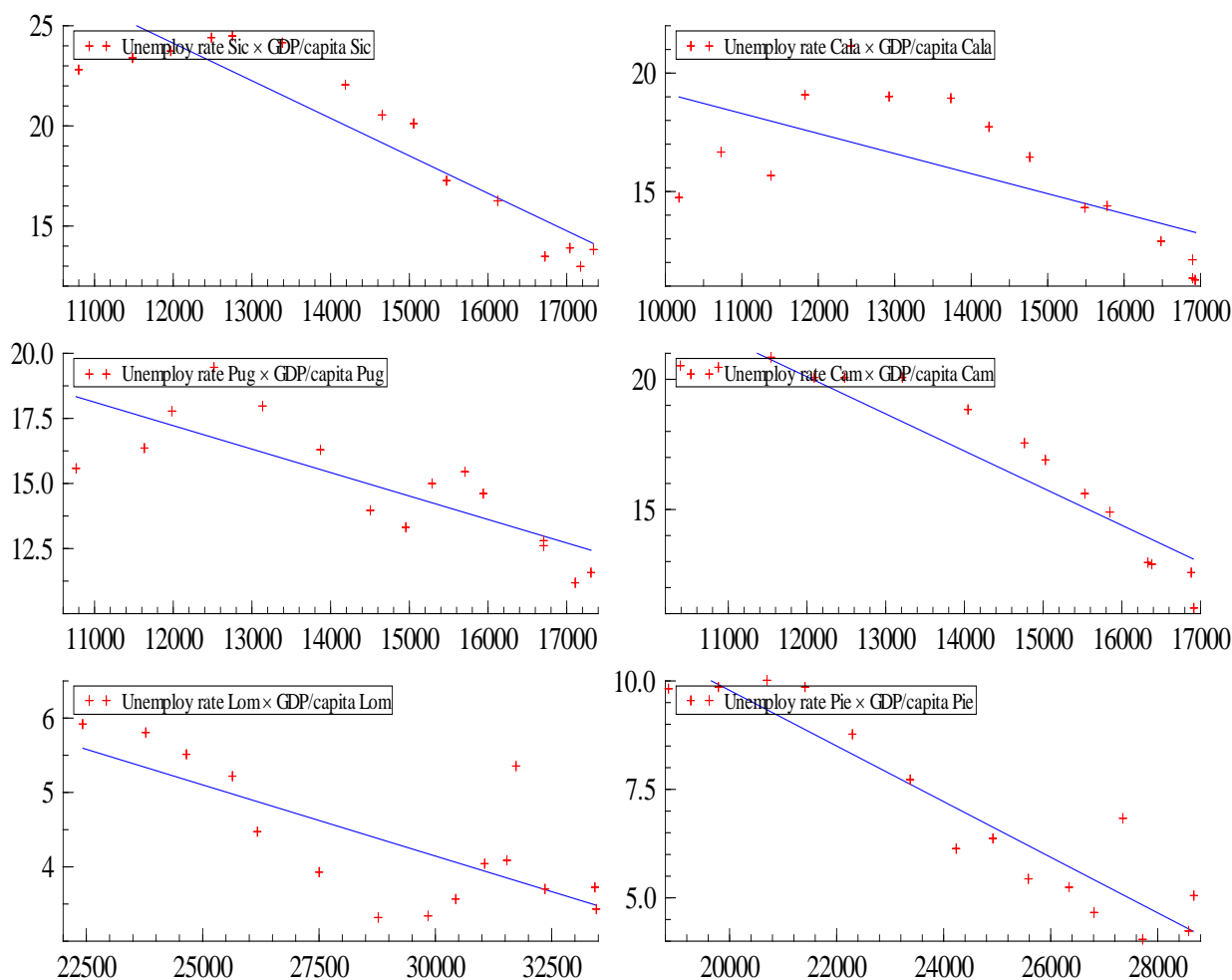
The linear regression model  $y = \beta_0 + \beta_1 x_1 + u_t$  was used to try to prove those hypotheses used ordinary least square method. (Hansen, 2000) The endogenous variable y is the unemployment rate. The exogenous variable x is GDP per capita, the number of violent crimes per 10 000 inhabitants, the percentage of employment in the High-tech sectors from total employment, the percentage of employment in the knowledge-intensive services from total employment and the number of patent applications registered at European Patent Office (EPO) per million of workforce, respectively in each model.

The graph no. 1 shows the Okun law that explains the negative relationship between the two variables, i.e. unemployment rate and GDP. For the second variable rather GDP per capita was chosen, because the regions are different in the respect of the area of the regions.



The results of regression analysis between the unemployment rate as an explained variable and GDP per capita as explaining variable were satisfactory with respect to our hypothesis only for Sicily.

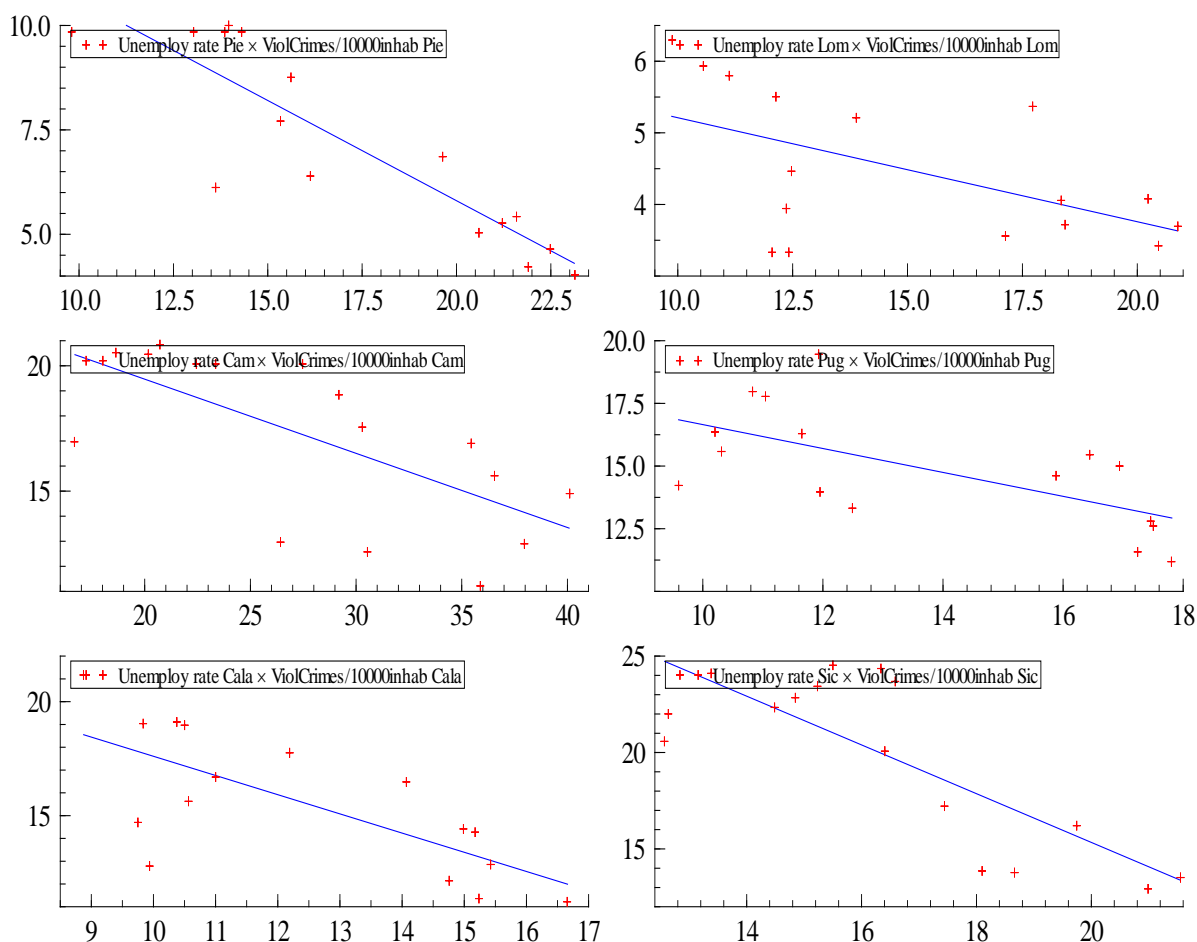
**Graph no. 1:** The regression lines between the unemployment rate and GDP per capita, 1995-2009.



Source: data from ISTAT database, GiveWin calculation

The results of the regression analysis show a rather negative relationship between unemployment rate and the number of violent crimes per 10000 inhabitants (except for Lombardy, where the relationship is small positive, but the model was statistically insignificant, as well as t-tests). The highest negative relationship was in Calabria and Sicily. This can be interpreted that the criminality employed the unemployed in that regions and so the higher the criminality the lower the unemployment rate. The key tests were statistically significant only for Calabria, Sicilia and Piedmont. The rest of the regions have insignificant models. The graph no. 2 shows the simple relationship between these two variables. The line has a negative slope in all cases as suggested.

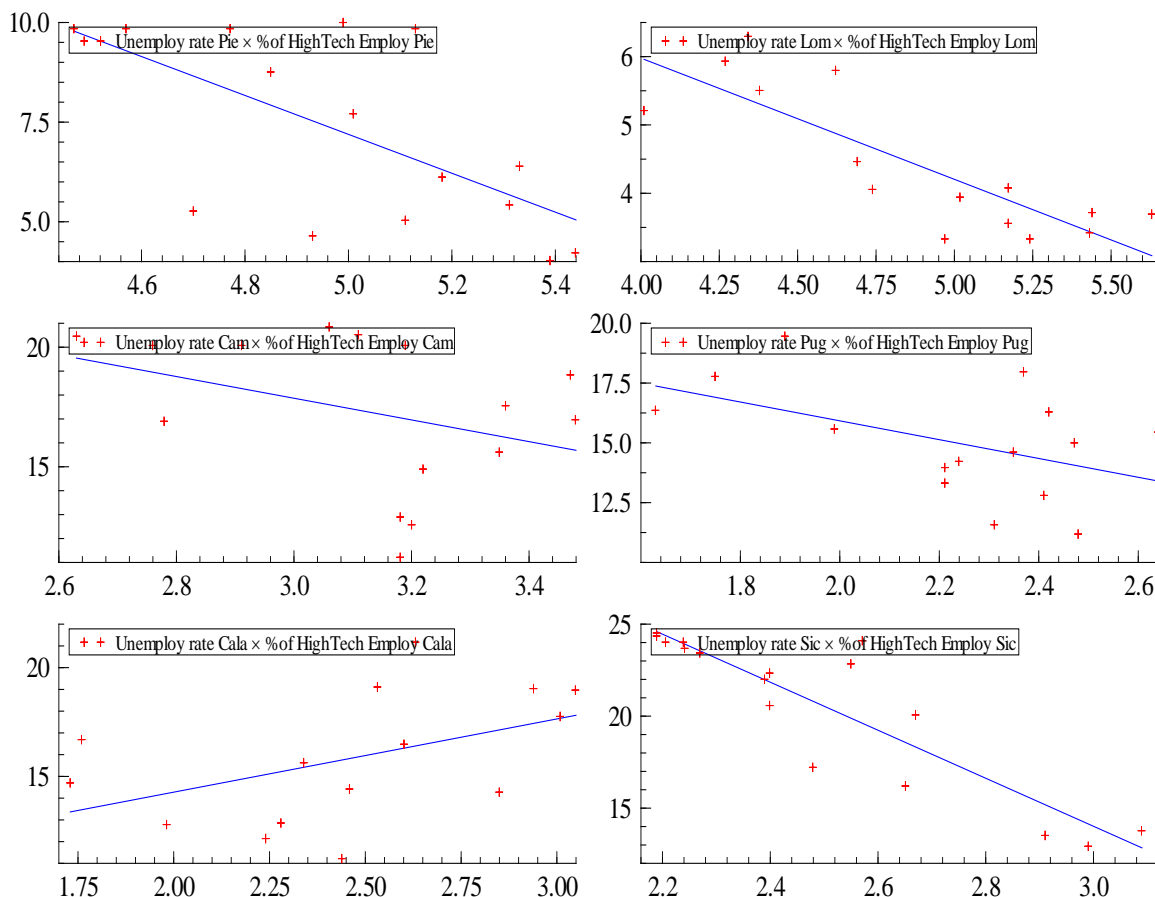
**Graph no. 2:** The regression lines between the unemployment rate and the number of violent crimes per 10000 inhabitants, 1994-2009.



Source: data from ISTAT database, GiveWin calculation

The graph no. 3 illustrates the negative relationship between the unemployment rate and the percentage of employment in the High-tech sectors from total employment (except for Sicilia). Our hypothesis was that higher the percentage of High-tech employment the lower (and so the larger the High-tech (capital-intensive) sector) the unemployment rate, because more is invested in that sectors, as the explaining variable being the proxy to the capital investments in regional economy. However, the results of regression analysis were satisfactory only in the case of Piedmont, Lombardy and Sicily. The highest parameter beta was in the case of Sicily, where it holds that a 1 percentage point increase in the percentage of employment in High-tech causes a decrease of the unemployment rate in Sicily by incredible 13 percentage points.

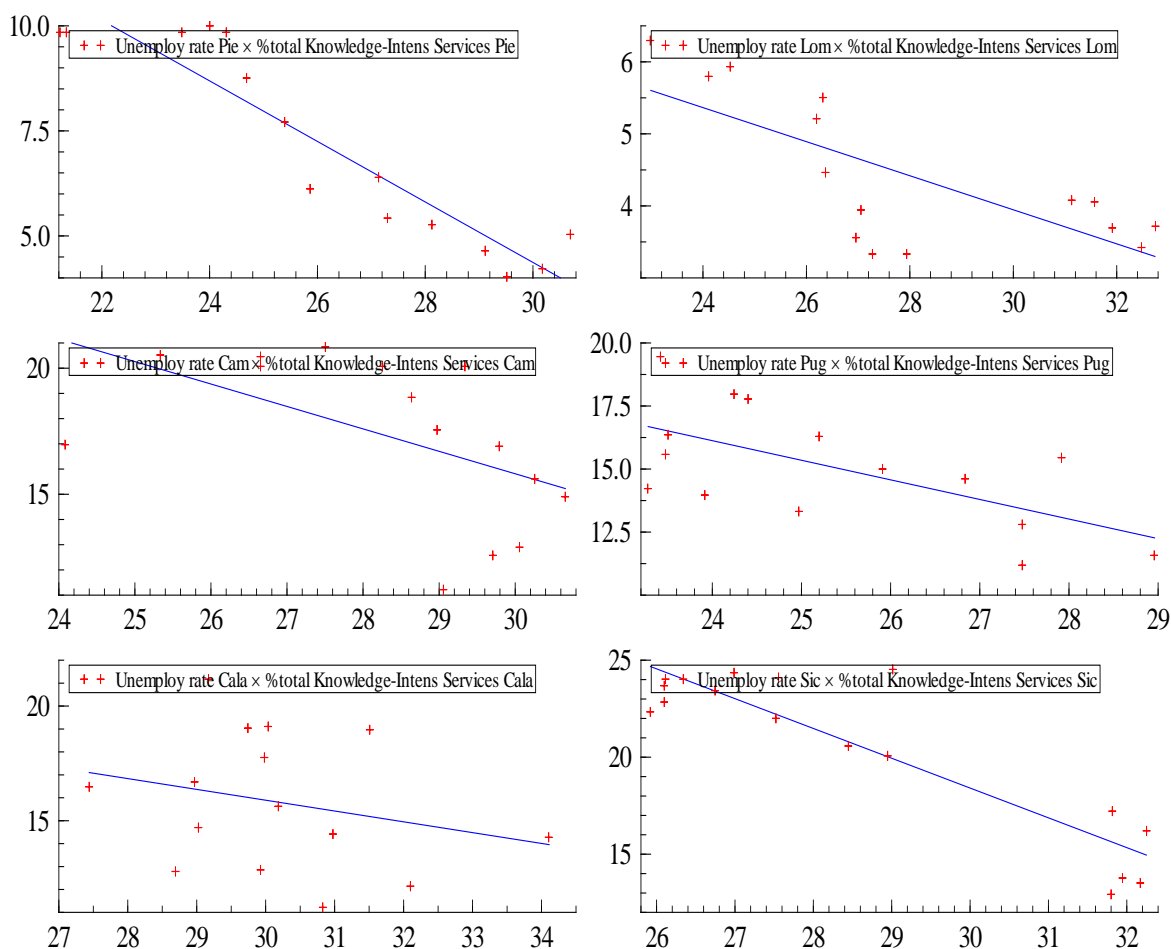
**Graph no. 3:** The regression lines between the unemployment rate and the percentage of employment in HighTech sectors from total employment, 1994-2008.



Source: data from ISTAT and Eurostat database, GiveWin calculation

From the point of view of relationship between the percentage of employment in knowledge-intensive services from the total employment (as a chosen proxy to human capital) and the unemployment rate the lines intersecting the data points for all monitored regions have a negative slope (graph no. 4). The linear regression models using OLS method show also negative relation, and except for Calabria, all have also statistically significant t-tests. The highest negative relationship was in the case of Sicily (then Campania, Puglia and Piedmont), where the beta parameter was -1.53581, that means an increase of 1 percentage point in the percentage of employment in knowledge-intensive services is followed by a decrease of the unemployment rate by about 1.54 percentage points.

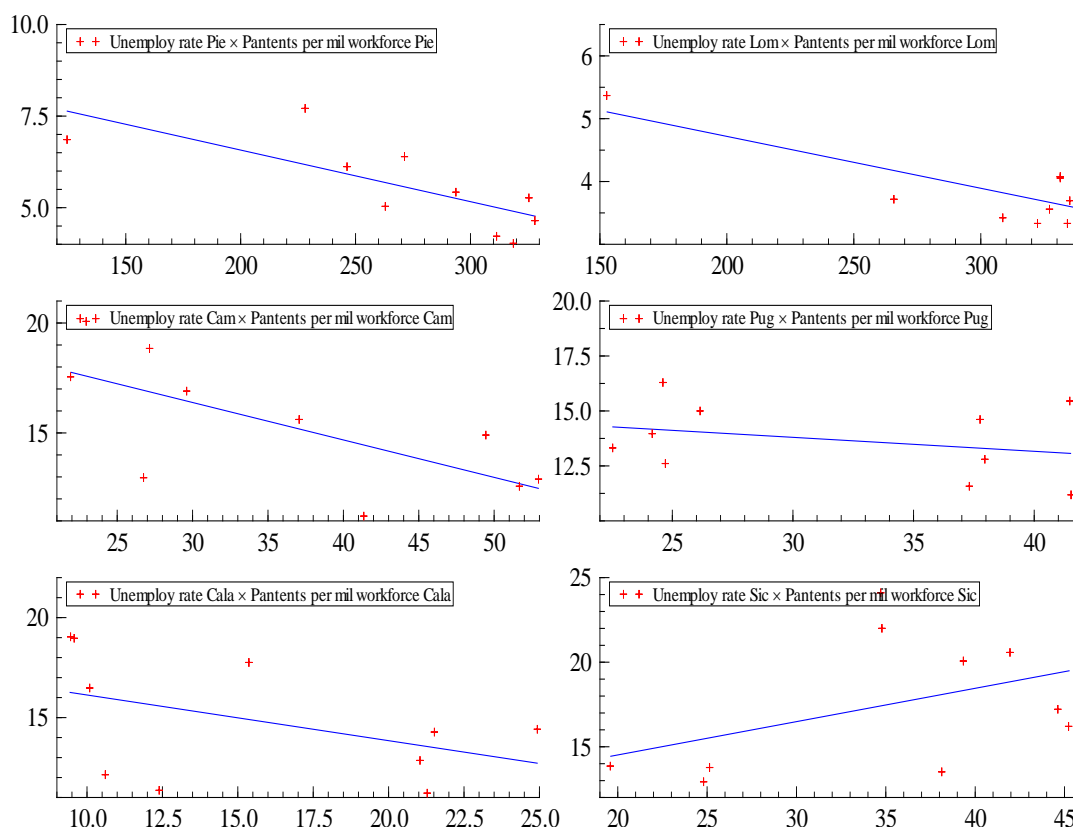
**Graph no. 4:** The regression lines between the unemployment rate and the percentage of employment in knowledge-intensive services from total employment,



Source: data from ISTAT and Eurostat database, GiveWin calculation

The number of patent applications registered at European Patent Office (EPO) per million of workforce was taken as the proxy of innovation activity of the region. In the graph no. 5 below the lines indicating the relation between the unemployment rate and the number of patents per million of workforce have the negative slope (except for Sicily). That means that the more patents (the higher innovation activity) the lower the unemployment rate. In the case of our simple linear regression models (using OLS method) the results indicate the same relationships. The model tests were very statistically significant for nearly all regions, except for Calabria and Sicily (Sicily was the only region that has a positive relationship). The highest parameter beta was in Campania that was equal to -0.405.

**Graph no. 5:** The regression lines between the unemployment rate and the number of patent application to EPO per million of inhabitants



Source: data from ISTAT and Eurostat database, GiveWin calculation

Nevertheless, the processed linear regression analysis only partly approves our theoretical hypotheses and also its explanatory power is lowered by the unsatisfactory results of the tests of the OLS method assumptions. Also the data series were short. Similar results are showed by the correlation coefficients of the variables in the table no. 2 (only in the fourth column is a variable real GDP growth rate).

**Table no. 2:** The correlation coefficients for the selected pairs of variables, 2000-2009

	<i>UnemR/ %HighTechE</i>	<i>UnemR/ %KnowSerE</i>	<i>UnemR/ Patents per mil inhab</i>	<i>UnemR/ RealGDPgr</i>
<b>Piedmont</b>	-0,62033	-0,9309	-0,72702	-0,24163
<b>Lombardy</b>	-0,83109	-0,73198	-0,78934	-0,76182
<b>Campania</b>	-0,36113	-0,52927	-0,80305	0,611358
<b>Puglia</b>	-0,48483	-0,63215	-0,61031	0,342465
<b>Calabria</b>	0,474802	-0,25496	-0,30377	0,553378
<b>Sicilia</b>	-0,87906	-0,89092	0,108783	0,591135

Source: data from ISTAT and Eurostat database, own calculation

**Conclusion:**

This paper tried to contribute at least partly to the research devoted to the problem of disparity of the North and South of Italy, mainly to prove the theoretical hypothesis about the regional economic aggregates of regional labor market and economy. The bare incomplete linear regression analysis included in this paper only partly approves our theoretical hypotheses. However, the statistical tests were not favorable. Therefore further research must be done to properly evaluate the labor market of the monitored regions and the real causality and relationship between the used variables.

The highest parameter Beta was calculated for Sicily in the linear regression models of the relationship between the unemployment rate and employment in High-tech sectors and employment in knowledge-intensive sectors. The following table no. 5 summarizes and generalizes the results.

**Table3:** Hypotheses about the relationships between the selected variables to unemployment rate and results

	Proxy to	Supposed relationship to unemployment rate	Results (not all tests statistically significant)
GDP/capita		negative	negative only Sicilia
Real GDP growth rate		negative	negative only Lombardy
no. of violent crimes per 10000 inhabitants		positive/negative	negative (highest Sicilia, Calabria)
% of employment in the High-tech sectors from total employment	investment	negative	negative (highest Sicilia, Piedmont and Lombardy)
% of employment in knowledge-intensive services from total employment	human capital	negative	negative (highest Sicilia, Campania, Puglia, Piedmont)
no. of patent applications registered at European Patent Office (EPO) per million of workforce	innovation	negative	negative (highest Campania)

So the investment in High-tech sectors and knowledge-intensive services might have the highest effects on the decreasing the unemployment rate in rather poor regions. Human capital and investment there as general variables might be the crucial determinants of unemployment rate and do matter.

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# THE BANKS GUARANTEE UNDER THE UNIFORM INTERNATIONAL RULES

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## Abstract

The UN Commission on International Trade Law (UNCITRAL) officially endorsed the most recent revision of the ICC Uniform Rules for Demand Guarantees (URDG N 758) at its 44<sup>th</sup> annual session in Vienna from 27 June-8 July 2011. It became effective on July 1, 2010. Jean-Guy Carrier, ICC Secretary-General said: The UNCITRAL endorsement of the ICC URDG will undoubtedly define the direction of banking practice for demand guarantees, establish international unity with regards to these practices, and alleviate any confusion and miscommunication which could arise in the completion of trade transactions” [10]. Clear, precise and comprehensive new rules aim to maintain legal risk control through the high level of certainty and predictability that they foster. The interest of financial stability of business entities and the desire to quickly collect receivables need a legal instrument for security payments which provide safety to business partners to the fullest extent and will minimize the effect of risk factors. From the number of these instruments, the bank guarantee is the most important security instrument for contemporary circulation of commodities in the world. In this work, the object and purpose of the study is to analyze the legal aspects and results when using the international banking guarantees and are based on the theoretical methodology of scientific research.

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**Keywords:** Uniform Rules for Demand Guarantees (URDG), demand guarantees, bank guarantees, beneficiary, applicant

## Introduction:

The bank guarantee is the financial instrument and gives an opportunity to the party of the agreement to be sure in getting due amount of money in cases when the other party of the agreement fails or does not pay the amount determined by the agreement.

As it is shown by business practice, even an agreement that is made without any legal defects is not the best protection mechanism when contracting party fails to fulfill obligations of payment determined by the agreement. Bank guaranty warrants fulfillment of liabilities defends financial interests of parties participating in international trade transactions.

In contemporary business conditions, which are characterized by spatial distance of clients and impossibility of real assessment of credit standing of the business partner, it is often necessary to use bank guarantees as instruments of security payments in business transactions.

Understanding of the utilization of bank guarantees provides better negotiating positions in business conclusions. Due to demand guarantee is a non-accessoriness, abstractness and the fact that a fast and simple act of realization provides coverage for a great amount of risk, the bank guarantee is one of the most important instruments of security payments in the international trading operation [4].

The present work contains the analysis of URDG N 758 news [5].

## **1. ICC publications about guarantee:**

Thirty-five years passed after ICC published for the first time a unified document about contractual guarantees-ICC publication №325 in 1978. Its objective was to protect the contractual parties from dishonest requirements, including provision of fair balance of interests. In 1992, ICC publication № 458 (1992) [8] was issued which unified in the part of Demand guarantee and during certain period was in force along with URDG ICC publication № 325 [9]. The first, - ensured contractual obligations of guarantees, and the second - regulated Demand guarantees. The international traders under ICC publication №460 were offered typical samples of texts of a guarantee letter according to ICC N 325 [9]. This simplified the procedures of issue of international guarantees. The parties also understood the main essence of a guarantee-preservation of a fair balance between the counteragents. The kinds of guarantees have also been registered: tender guarantee; payment guarantee; advance return guarantee and contractual obligations fulfillment guarantee what was reflected in typical samples of Publication № 325 bank guarantees for banks and in the samples of the letters, by which the beneficiaries had to apply to bank guarantor with the demand of making payment [9].

Publication N 503 and N 510 assumed the same function for Publication N 458 [8] which also contained written samples of bank guarantee, but the sample of counter agent was also added.

Publication N 325 [9] failed to gain relevant support in trade, at the same time, publication N 458 [8] was very successful; in 1992 -2009, it coped well with the set objective. It contained 28 articles and was very innovatory. Uniform Rules for Demand Guarantees (URDG 758) comprise 35 articles; the new URDG also comes with embedded model guarantee and counter-guarantee forms and a set of optional clauses in a ready-to-use package. This is a more precise and more comprehensive than the URDG 458 they replaced.

ICC publication (URDG N 758) resolved all unsolved issues (for example, disputable “reasonable term“, “reasonable care“, etc.) of publication N 458. It united all kinds of guarantees and was collectively named Demand guarantee, because guarantees of all kinds had equal results: the guarantor had to pay the amount indicated in the guarantee according to the demand of beneficiary. URDG N 758 introduced into already effective guarantees the issue of change of currency, introduced the mechanisms of termination of guarantees, unless the guarantee contained the date of the expiration of its validity and the phenomena which would determine the expiration of the validity of the guarantee [5].

According to the opinion of ICC commission, this must resolve the issue of the so-called lifetime guarantees which put the applicants in an uncertain position and caused problems to the banks according to the requirements related to the capital. It is also important that URDG N 758 contains the packages of samples of written formats of guarantees and counter guarantees without separate publications [5].

## **2. The essence of the guarantee:**

The second Article of URDG 758 defines the guarantee in the following way: Demand guarantee or guarantee means any signed undertaking, however, named or described, providing for payment on presentation of a complying demand [5].

The simplest legal-financial scheme with the application of guarantee is: the applicant and beneficiary are the parties to the agreement; at the same time, the applicant is the customer of the bank. According to the agreement, it purchases goods from the beneficiary, but the parties of the agreement are not aware of each other's financial stability. In order to resolve the problem, the applicant applies to the bank asking to act as its guarantor before the beneficiary. The guarantee will say that unless the applicant pays to the beneficiary the amount, stipulated by the agreement, this amount will be repaid to the beneficiary by the Bank guarantor. For this purpose, the beneficiary must demand in written payment from the



guarantor and indicate which contractual obligation was not fulfilled by the applicant (Article 15 (a) (URDG 758) [5]. As a result of such relation, the beneficiary is sure to receive amount from the guarantor and so sends the goods to the applicant. The applicant is sure first, to receive goods and then make payment. He pays the bank commission, but it is cheaper than if he took credit for this advance payment. The bank is satisfied that it did not disburse credit, but it received commission for disbursement of the guarantee. Finally, the applicant and the beneficiary fulfilled the contractual obligations and the beneficiary returned the bank guarantee to the bank because the latter did not need it any more.

This scheme is complicated if companies of several countries and several banks are involved in it, but the essence of such bank guarantee will not change.

Until the recent times, the scientist lawyers agree that the concept guarantees terminologically and conceptually were vague and unclear and actually, the unified definition of guarantees did not exist [1], [2]. The reason of this is the circumstance that the civil law of different countries is founded on different concepts and different terms are used for guarantees (guarantee, standby letter of credit, performance bond). At the same time, legal practice of different countries differentiates the concepts of “guarantee“ and “letter of guarantee“ and considers “guarantee“ to be an initial obligation, issued for securing of the guarantee, a certain amount to be paid, and the letter of guarantee-secondary obligation. According to the opinion of several scientists, the circumstances became even vaguer after taking over the Anglo-American terminology of continental law and bank practice. Today, the term “guarantee” may mean collateral as well as independent means of security [3]. URDG N 758 made a step towards settlement of the problem and future practice shows how well the definition offered by him works.

### **3. Independent legal nature of guarantee:**

In publication URDG №758 of the international chamber of commerce, the 5<sup>th</sup> Article of “Uniform Rules for Demand Guarantees”, independence is defined in the following way: “A guarantee is by its nature independent of the underlying relationship, and the application and the guarantor are in no way concerned with or bound to such relationship. A reference in the guarantee to the underlying relationship for the purpose of identifying it does not change the independent nature of the guarantee. The undertaking of a guarantor to pay under the guarantee is not subject to claims or defenses arising from any relationship other than a relationship between the guarantor and the beneficiary” [5].

How should this extract be evaluated legally? To our opinion this very extract defines the independent legal nature of the guarantee and means the following: if the guarantee ensures payment of monetary obligations, undertaken by the agreement, which were made between the customer and the counteragent of the guarantor, and then it appeared that this transaction is void, this shall neither suspend not terminate the obligation of the guarantor. The guarantor still remains obliged to pay the amount, indicated in the guarantee if the beneficiary demands the payment. As a rule, the guarantee textually contains an indication on the agreement which it secures, but this indication has only identification function and does not bear any other legal burden.

Thus, if we put it shortly, the obligation of the guarantor before the beneficiary is valid even when the agreement, whose fulfillment is secured by the guarantee, is void. The guarantee is an independent abstract transaction which acts according to its own conditions and within its framework.

### **4. The persons issuing guarantee:**

It should be noted that neither UNO convention not URDG shall review issuance of the bank guarantees as a prerogative of special authorized persons (banks, credit institutions and insurance organizations) (2<sup>nd</sup> Article of URDG) (26). Similar formulation is implied in

the 2<sup>nd</sup> Article of UNO convention, according to which “a bank, other institution or person” may act as a guarantor [6]. The convention does not restrict the circle of authorized persons, issuing guarantees. Though, it is implied that financial stability of the guarantor is obligatory, as at any moment it should satisfy the monetary demand of the beneficiary. This issue must be resolved by internal legislation of countries [6]. Here it should be mentioned that banks are more often involved in the issuance of guarantees, due to financial stability.

#### **5. The rule of submission demand by the beneficiary:**

According to URDG 758 (Article 15 a-d), only beneficiary shall submit a demand to the guarantor. He should indicate which demand was violated by the applicant according to the agreement and attach to the application the documents which are indicated in the guarantee. The form of submission (made on paper carrier/electronically) must be indicated in the guarantee. In the presence of such instruction, standard international practice is used. The 2<sup>nd</sup> Article indicates that in case of application of electronic format, the parties should make authentication what means that the party to which the document was submitted must make unilateral identification and make sure that the received information is complete and unchanged (Article 2).

#### **6. The terms of satisfaction of demand of beneficiary:**

In URDG N 758, as different from № 458, the term is defined by five working days as a result of which the bank guarantor either must make payment or refuse to do so. This term shall be calculated from the second day after receipt of the demand of the beneficiary; during this period the guarantor must check whether the demand, the attached documents are accurate, and whether it complies with the issued guarantee. It is impermissible to reduce this term, and the circumstance, that the demand was submitted to the guarantor on the last day of the validity of guarantee, or the term expires on the second day, is not taken into account (Article 20) [5]. If the demand is proper and submitted in a due way, the guarantor must pay the amount requested by the beneficiary at the place, indicated in the guarantee. It is a very important novelty.

#### **7. Currency of payment:**

According to general principles, the guarantor must make payment in the currency that is indicated in the guarantee. But according to the Article 21 of URDG N 758, there are two circumstances when the payment may be made in another currency: the first - if the payment in the agreed currency violates the legislation that is in force in the place of payment and the second - if due to reasons, independent of the guarantor, the payment cannot be made in the agreed currency. In such a case, the payment must be made in the currency of the “place of payment“. The result is obligatory for the applicant. In such circumstances, calculation of the currency must be made according to the exchange rate in force at the place of payment. In case of partial payment, the beneficiary shall be authorized to demand the difference either by the rate, effective by that moment, when the payment had to be made completely, or according to the exchange rate, effective at the place of payment by the moment of payment of difference [5]. This point is new and important in the international trade.

#### **8. Guarantee and force-majeure:**

URDG N 758 was the first to introduce the concept of force-majeure: “acts of God, riots, civil commotions, insurrections, wars, acts of terrorism or any causes beyond the control of the guarantor or counter-guarantor that interrupt its business as it relates to acts a kind subject to these rules“and defined the following rule of the validity of the guarantee during force-majeure circumstances.

This means that if the term of the guarantee expires at the time when submission of the demand or payment fails due to force-majeure, the term of the guarantee shall be prolonged by 30 calendar days from the date when this term had to expire. The guarantor must notify the instructing party of the mentioned. If the guarantor accepts the documents submitted by the beneficiary, but inspection cannot be performed due to force-majeure circumstances, the term of inspection shall be suspended till commencement of the activities of the guarantor. If the guarantor inspected documents, but the payment is hindered by force-majeure circumstances, the payment should be made upon the end of force-majeure circumstances, even when the term of guarantee expires. The instructing party shall be bound by any extension suspension or payment under the Article 26 of URDG N 758 [5]. The guarantor assumes no further liability for the consequences of the force majeure.

### **9. Transferable guarantee:**

This is a new concept introduced by URDG N 758 and defined as follows: “a guarantee is transferable only if it specifically states it is “transferable”, in which case it may be transferred more than once for the full amount available at the time of transfer. But a counter guarantee is not transferable” (Article 33) [5]. In this case, the guarantor will be limited only by the terms with which he/she clearly agreed when disbursing the guarantee. After disbursement of the guarantee, URDG N 758 releases the guarantor from any kind of performance. What does transferability mean? It is changing of the beneficiary in the bank guarantee. At a glance we may see its similarity with a bill of exchange (draft) which is defined by “The United Nations Convention on International Bills of Exchange and International Promissory Notes” [7]. Thus, it will be interesting how the change of the beneficiary in the bank guarantee will be reflected in the international trade practice.

Paragraph (c) of the Article 33 says that a transfer guarantee means a guarantee that may be made available by the guarantor to a new beneficiary (“transferee“) at the request of the existing beneficiary (“transferor“). A transferred guarantee shall include all amendments to which the transferor and guarantor have agreed as of the date of transfer. A guarantee can only be transferred where the transferor has provided a signed statement to the guarantor that the transferee has acquired the transferor’s rights and obligations in the underlying relationship.

Unless the guarantee provides otherwise, the name and the signature of the transferee may be used in place of the name and signature of the transferor in any other document.

These definitions make it clear what procedure is required when transferring guarantee. The initial beneficiary must yield the demand by the main agreement to the beneficiary (assignment of debts (cession)) and notify the guarantor that a new beneficiary acquired his/her rights and demands according to the main agreement.

The initial beneficiary must yield the demand of the main agreement to the new beneficiary, (assignment of debts (cession)) and notify the guarantor that the new beneficiary acquired his/her rights and demands according to the main agreement. All changes must be included in the guarantee, which are agreed between the guarantor and the first beneficiary as of the date of transfer and transfer to the beneficiary.

URDG N 758 indicates that the initial beneficiary may yield the demand by the guarantee to another person, notwithstanding whether the text of the guarantee mentions transferability, but at the same time, it assigns the right to the guarantor not to pay the guarantee amount to the new beneficiary, unless the guarantor him/herself agrees with such payment.

### **10. Governing law and jurisdiction:**

The innovation of URDG N 758 is that unless otherwise provided in the guarantee, its governing law shall be that of the location of the guarantor’s branch, or office that issued the

guarantee and any dispute between the guarantor and the beneficiary relating to the guarantee, shall be settled exclusively by the competent court of the country of the location of the guarantor's branch or office that issued the guarantee. According to old URDG N 458 governing law and the court, reviewing the dispute might be current legislation and court according to the location of the guarantor, as well as the applicant or instructing parties which complicated court procedures to the parties.

**Conclusion:**

In this work, we tried to underline the innovations which were introduced to the International Trading Market by URDG 758 as opposed to URDG 458. ICC publication 758 addresses such innovations as electronic format of communications. In new rules, as compared to their predecessors, the legal relations are specified to such extent that they do not allow ambiguity and serve to preservation of fair balance among the instructing party, beneficiary and guarantor and the risk of unfair demand to the guarantor to make payment is minimized.

Thus, arranged legal documents in the international trade approved by UNCITRAL will make international trade more sustainable and reliable and will obtain much more support than its predecessor ICC publication URDG 458.

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# TRANSITION TO THE MARKET ECONOMY AND THE CHANGES IN THE EDUCATION: THE CASE OF THE BALTIC STATES AND LATVIA IN PARTICULAR

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## Abstract

The paper is analyzing main characteristics of the education development in 3 Baltic States throughout 3 periods: National independence period between two World Wars, Soviet period and restitution of National States. The theories of human capital are used to explain the attitude to the education. The role of universities during the transition to market economy was changed. The professional changes in labor market can be observed. The education and the qualification are the necessary preconditions of competitiveness.

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**Keywords:** Baltic States, Latvia, transition, human capital, education

## Introduction

The aim of the paper is to analyze the impact of the transition process to a market oriented economy on the education system at the universities in one particular region of Central and Eastern Europe: Baltic States. For those 3 countries the historical aspect of their development is crucial because Estonia, Latvia and Lithuania are representing a particular case. These countries, having Nordic cultural and economic traditions and development dimensions during 50 years were not only excluded from a normal market economy enrollment but they lost their national independence and were incorporated in the territory of another country, USSR. For this reason the restitution of the previous system (which existed before the annexation by Soviet Union) has had a big impact on the re-established States, public systems, legal mechanisms, market structures, public opinions and orientations, system of education included. The paper is reflecting interdisciplinary approach to the development of education.

## Human capital and its reflections during the periods of development of labor force

The importance of education for the development and economic prosperity on individual or on State level is studied during the centuries. We can see 3 main streams in the development of human capital concepts: 1. Classical approach is starting with concepts of Plato (428-348 BCE) or Aristotle (384-322 BCE), in which the education is one very important element of a State's model, social stratification and professional segmentation. A. Smith (1723-1790), in describing the processes of the wealth accumulation, is showing the education as a crucial factor of wages and at the same time the element of fixed capital (we can consider it as an investment in qualification) (Smith, 1993). 2. The development of concept of human capital itself. Different schools in the second part of 20<sup>th</sup> century are accentuating the education as an investment in human capital by 2 main trends: 1) microeconomic approach, for ex., G. Becker, J. Mincer and 2) macroeconomic approach, for ex., R. Lucas, R. Solov (Šavriņa, 2005) During the 90's and at the beginning of 21<sup>st</sup> century, the main attention is paid to the financial side of education and the impact of education on the economic growth: T. Schulz (Schulz, 1992, 1994), W. Hwang, S. Liao, M. Huang (Hwang, Liao,

Huang, 2013), J.Soaes (Soares, 2003). 3. The problems of forced introduction of liberal approach on different economic and social levels related with development of globalization, the problems of transition and marketization are shown via the discussions about the State's role, new appearances of inequality in the possibilities of access to education: G.Williams (Williams, 1997), F.Thompson, W.Zumetta (Thompson, Zumetta, 2001), L.Yang, B.McCall (Yang, McCall, 2013). We consider that the discussions about the repartition of State and private sector responsibilities in the context of efficiency and equity of education will be developed in greater detail after the global crisis.

The elements of all 3 mentioned streams of conceptual approaches can be seen in the case of changing attitude towards education in Baltic States through 3 historical periods.

**1<sup>st</sup> period:** At the end of the First World War, the three Baltic States finally obtained their political independence and national States were created (Estonia declared its independence on 24<sup>th</sup> of February 1918, Latvia on 18<sup>th</sup> November 1918 and Lithuania on 16<sup>th</sup> February 1918). Before that the territories of Baltic States were submitted to multiple powers and influences (Vikings, catholic religious ordains, Germans), their parts were incorporated in different countries such as Denmark, Sweden, Poland or Russian Empire. They had finally unified their territory without a previous experience. The exception was Lithuania: the Great Polish Lithuanian duchy was one of the dominating powers in Europe during few centuries until 1795 but the Lithuania created in 1918 was only a small part of this territory and a part of Lithuanian territory because another part was under Poland and Germany.

After the creation of independent States we can see the impact on the system of education by several factors. First, by the stable traditions of education due to the impact of religion, the result of influence of Protestantism since the beginning of 16<sup>th</sup> century was the fact that the illiteracy was not possible in Estonia and Latvia. Second, a previous development of higher education. In Estonia, the first university was reestablished in Tartu in 1802 on the base of Academia Gustaviana existing since 1632. In Latvia, the traditions of higher education and research existed through highly respectable institutions such as Riga Politechnicum (1862), pedagogical seminaries or different academic research societies since 18th century but didn't have universities. Latvians obtained their university education mainly in Tartu in Estonia (often reaching this university by feet) or in Saint-Petersburg in Russia, sometimes in German universities. In Lithuania, the traditions of higher education were developed in Vilnius university (1579) but Vilnius is attributed to Poland and is not the part of independent Lithuania in 1918. Third, the traditions of maritime schools. Krisjanis Valdemars (1825-1891), Latvian economist theoretician and practitioner of maritime affairs, was one of the representatives of the Latvian national social movement "New Latvians" favoring the "awakening" of national self-conscience and self-confidence, created the first maritime school in Ainazi (in Latvia, on the border with Estonia) in 1864, this was the first maritime school in the whole Russian Empire where he created 65 schools. Taking classical production factors and land-labor-capital from classical political economy as background, he considered that for Latvians and Estonians the sea was a relatively free area in which they can have an advantage. For this reason, under the conditions of absence of capital, the main factors for economic development could be sea-labor-diligence (+education). Those maritime schools educated captains and helmsmen.

The independent development of the three Baltic countries was short (22 years until Soviet occupation in June 1940) but this period is remarkable by its efforts, achievements and success. In result, independent and stable economies, legislations and governmental structures were established. For this reason this period is treated positively in people's memory. The same characteristics can be seen in the system of education. The education itself was considered valuable to begin with. It serves as means for prosperity but not only (for example, during the crisis in 1929-1933, Latvian government specifically took care of the educated people by creating particular employment programs for the so called "intelligent unemployed")

people). For this reason, one of the first decisions of the new government of Latvia was the creation of university in 1918. The importance of this university is high: 1) the university has the name of country in its name: University of Latvia, 2) this is the first university in three Baltic countries in which the education is presented in national language (not in Russian, German or Polish as in previous education establishments in Estonia, Latvia and Lithuania).

Resolving another problem stemming from history, the agrarian reform is executed in three Baltic countries. The possibility to have a land ownership is considered as a measure to ensure the social and historical justice and for this reason a large social class of farmers is appearing. To satisfy the needs of science grounded elaboration of land and to have higher agricultural productivity, the Academy of Agriculture was established in Latvia in 1936 by moving the Faculty of Agriculture from University. Lithuanian University of Agriculture was established in 1924. The tradition was that the oldest son of a farmer was sent to the university to become certified in agriculture which would ensure continuity and sustainability of knowledge based professional agricultural production by dynasty, even if it was only the second generation of land owners.

Another characteristic of education system was the development of women's education. The appreciated role of a woman in the family and in the society was ensured by traditions but the attribution of voting rights to women in Baltic States since the very beginning of national independence allowed additional opportunities for female education. The first female student corporations in the world were created in Latvia. Pedagogy, health care but especially housekeeping were the main fields of professional female activity. Not only the faculty of Economics but the housekeeping schools formed the managers where the knowledge of economics and accountancy was an important element of education. Here we can see the development of ideas of Aristotle (Aristotelis, 1985) of rational housekeeping by the opposite gender dimension.

In addition, attention was paid to the development of informal education system: the aim of "People's universities" were the dissemination of knowledge by university level courses free of charge and particularly in countryside. These courses were organized by enthusiastic university professors and well known personalities.

In result, the structure of employment in Baltic States was as follows: main occupation was agriculture and forestry (58,0% in Estonia in 1930, 65,9% in Latvia in 1934, 79,4% in Lithuania in 1928), industry and mines (17,2% in Estonia, 13,5% in Latvia and 6,2% in Lithuania), trade and maritime (4,9% in Estonia, 5,7% in Latvia and 2,4% in Lithuania) (Latvija citu..., 1939). By the number of university students per population of 10 000, Latvia occupied the 1<sup>st</sup>, Estonia - the 2<sup>nd</sup>, Lithuania – the 7<sup>th</sup> place in Europe in the 30`s. By the total number of students the University of Latvia occupied the 15<sup>th</sup> place in the world (Central Statistical Bureau of Latvia, 2002).

**2<sup>nd</sup> period:** The second period of development of labor market in Baltic countries is related with crucial changes in politics, economy and society. On the political level, the three States lost their national independence due to the Soviet occupation in June 1940 and reestablishment of Soviet regime at the end of the Second World War in 1944-1945. By this incorporation in the frame of USSR, Baltic States lost their national borders, national army and independent national legislation. On the economic level, the changes were even more important because all three countries passed from market economy to another socio-economic system: forced planned economy. They lost their national money and banks, the private ownership of production means was not possible. The private enterprises and farms disappeared by the process of nationalization and the kolkhozes (collective farms) replaced them. On the social level the main changes were 1) the loss of population by the soviet executions and deportations and the emigration to escape from soviet regime during the 1940s and 2) planned immigration from other regions of Soviet Union to ensure the massive production in soviet factories.

If the ethnic population was dominating in the 3 independent Baltic States, they became minors during the Soviet period: in Estonia the Estonians were 88,2% in 1934 and 64,7% in 1979, in Latvia the Latvians were 75,7% in 1935 and 53,7% in 1979, in Lithuania the Lithuanians were 80,6% in 1923 and 80,0% in 1979 (Levits, 1989). As we can see, the population of Estonia and Latvia was replaced by one half and this fact has an enormous impact on ideology, opinions and system of values. 3 factors have had major impact on the labor market: 1) employment as an obligation: unemployment is not existing, 2) as the prices are not established by demand and supply but by the government, they are not negotiable and not changing: the salary as the price of labor force is subordinate to the same rules, 3) system of repartition existing under the conditions of ordered economy is attributed to the goods and to the labor force: the graduates of technical schools and institutions of higher education are designated to a specific workplace and the specialists are moved from one workplace to another by the ministry.

Due to the ideology which accentuated the value of physical work, the system of salaries was remunerating more physical than intellectual work. In people's minds, the attitude towards work duties was changed because of no competition in the conditions of an unchanging monthly salary without relation to work efficiency. In addition, the big Soviet factories proposed a lot of social facilities for the workers, such as place in kindergarten, new apartment (in Soviet Union, the problem of obtaining flats was extreme; it was usual that, for example, 3 generations were living in the same flat or sometimes in the same room in cases when the family was living in the so called "communal flats" where few separate families were living together by necessity, not choice). Prestigious working places were in shops, restaurants and cafeterias because of possibility to have the access to unique goods when the deficit of all kind of goods was permanent.

The structure of economy by sectors in Baltic Republics in 1980 was the following: industry was representing 63,8% in Estonia and 65,6% in Latvia, 57,2% in Lithuania in 1979; agriculture – 16,7% in Estonia and 16,0% in Latvia, 23% in Lithuania in 1979; construction – 7,9% in Estonia and 7,4% in Latvia, 9,3% in Lithuania in 1979 (Latvijas Padomju..., 1985).

The system proposed the education for free. The higher education was attributed without payment of tuition but some inconveniencies were observable: 1) the student groups were limited and high competition was observable to become student, 2) the working people and demobilized soldiers had privileges to entrance examination, 3) the boys were going to studies to escape from military service in Soviet army, choosing studies outside their field of interest, instead aiming for the lowest entrance competition, 4) for the young people from rural area the studies were an advantage and a disadvantage at the same time: some of them received the so called "pass from kolkhoz" which ensured guaranteed studies without entrance competition but the field of studies was restricted by the needs of kolkhoz with the obligation to come back and work in the same kolkhoz.

The studies were organized in 3 forms: fulltime studies, part time studies during the evenings for the working people and part time studies by correspondence with some presence time sessions. All first year fulltime students (and sometime students from older years too) together with some teaching staff were sent to the kolkhozes in September for harvesting and only after that the studies started up. As fulltime students were not allowed to work, the possibilities to earn the money for the students were proposed and organized by universities during summertime such as student units in construction, student units of train attendants, student stewardess units in aircraft service. Those units have a commander and commissaries to ensure the ideological aspect. The gatherings of units were organized on different levels. For the political reasons, special unities were organized for the work in far geographic distance (for example, the students of University of Latvia were sent to Kabardino-Balkarian Autonomous Soviet Socialist Republic in Caucasus to work in a vegetable canning factory). One special unit was organized on the level of Republic in which the representatives from



different universities were engaged to work in the construction works in the Gagarino city in Russian Federation (the native town of the first cosmonaut Yuriy Gagarin).

As we could see, prominence was given to the physical work by policy, ideology and remuneration. The collectivism was taught in different ways to ensure the common thinking. At the same time the higher education was an opportunity to achieve some independence in thinking by the received knowledge. If the salaries for intellectual work in Soviet Union were low (the opposite to the concepts of intellectual capital), the higher education proposed the possibility to become a part of intelligentsia and the knowledge was the unique kind of property which could not be taken away.

**3<sup>rd</sup> period:** The third period of development of education system was closely related with the reconstruction of market economy. This period, starting at the beginning of 90`s in Baltic States, was not only the change of socio-economic system as in countries of Central Europe. The predominant element of all changes was the restitution of national State: political independence with positive historical memories for economic success, self-confidence and hope on restitution of the previous system of values. At the same time, the development of world economy under the conditions of globalization was imposing its roots.

### Changes in education in Baltic states

The new period of development of education during the transition to market economy has a strong influence of three characteristic elements of each periods : 1) the system of values and its impact on the structure of labor force by the sectors of national economy throughout the education during the period of the first independence between the two World Wars; 2) the changes in labor force and their impact on ethnic structure during the Soviet period; 3) the reconstruction of market oriented economy under the conditions of globalization and regional integration and its impact on education system. Main principles are similar for three Baltic States but more detailed analyses will be given about Latvia.

### Requirements for the education due to transition to the market economy

The transition to the market economy in the Baltic States during the 90`s can be characterized by three fundamental orientations:

- 1) The interruption with previous system changing the geopolitical priorities for economic relationship;
- 2) The establishment of market relations and diminution of State`s intervention
- 3) The openness of national economy and its integration in global economic processes on their world wide causality and supranational institutional level.

The impact of all three mentioned orientations can be seen in the structural changes in national economy which, by their side, provoked changes in the structure of labor force.

*Dynamics of changes in employment structure in Latvia (% of employed people)*

	1990	2000	2012		1990	2000	2012
Agriculture	16,5	13,2	2	Hotels and restaurants	4,3	2,5	...
Forestry	*	1,5	*	Transport and communication	7,5	8,2	9****
Fishing	0,9	0,6	...	Financial services	0,5	1,6	...
Extracting industry	0,3	0,2	3**	Real estate sector	5,7	5,5	...
Manufactory Industry	26,5	16,2	14	Public administration, defense, social insurance	1,5	6,1	25*****
Energy	1,0	1,7	...	Education	7,2	8,4	...
Construction	9,7	6,3	7	Public health	4,8	5,7	...
Commerce	7,7	16,7	20***	Other services	5,9	5,6	20

Source: Ministry of Economics of Latvia

\* Forestry is counted together with agriculture

\*\* Other industry

\*\*\* Commerce and accommodation, catering

\*\*\*\* *Transport and storing*

\*\*\*\*\* *Public services*

1) The demand for labor force reduced during the 90s caused by transition to a new economic model characterized by: a) no more enormous factories aided by State`s subsidies and b) having a rational staff structure. 2) In the new conditions the labor force became free to make its choice but its quality is not always corresponding to the new demands. New professions are created without response of supply from labor force. 3) At the same time 3 sectors are growing very rapidly: a) construction, b) commerce, c) financial services. The growth reasons are different for each mentioned sector (Šavriņa, 2002). Those changes have their reflection in the system of higher education. While some decrease was observed for the access to primary education, the number of students at universities increased spectacularly. Main fields of interest are in social sciences: economy, management and law.

During the first decade of 2000s, the professional changes in the labor market in Latvia were studied. Through analysis of primary data (ESF project about labor market studies in Latvia, professional mobility) the professional changes and their influencing factors are shown during the time period of 2000 – 2007 (Darba tirgus..., 2007). As one of researchers of this project we consider that the professional mobility in Latvia is observable between the same professions but the deficiency is not in the same group of professions:

<i>Incoming professions</i>	<i>Outgoing professions</i>	<i>Professions with the biggest deficiency</i>
<ul style="list-style-type: none"> <li>• Salesperson</li> <li>• Financial specialist</li> <li>• Builder</li> <li>• Driver</li> <li>• Assistant, cleaner</li> <li>• Security service</li> </ul>	<ul style="list-style-type: none"> <li>• Salesperson</li> <li>• Driver</li> <li>• Textile and cloth manufacturers</li> <li>• Builder</li> <li>• Cook</li> <li>• Financial specialist</li> </ul>	<ul style="list-style-type: none"> <li>• Nature scientists</li> <li>• Engineers</li> <li>• Architects</li> <li>• Electrical engineers</li> <li>• <i>Construction specialists</i></li> <li>• Computer engineers</li> <li>• Mechanics and locksmiths</li> <li>• Medical doctors</li> <li>• Nurses</li> <li>• Researchers and University teachers</li> <li>• School teachers</li> <li>• Specialists of civil defense</li> <li>• <i>Security service</i></li> </ul>

Deficiency of mentioned professions is closely related with the education process and the development of study programs.

### **Changing role of Universities**

During all those changes in Baltic States the universities had a crucial role. First, the legal status of a university was re-established (including its own Constitution). After that the universities were free to make changes: 1) the passage to bachelor-master-doctoral studies system in the middle of 90s, earlier than Bologna requirements in EU, 2) the creation of new studies programs, 3) the changes of the content of education, 4) international openness. In addition, the specific aspect for Baltic States is the studies language because with the restitution of a National State it was necessary to make strong changes in the legislation to fulfill the requirement that the main studies language is the National language.

Historically, 3 models of financing higher education are observable: a) directive model, b) continental model and c) Atlantic model (Dahlin, 2006). If the directive model is related with a strong State control in such areas as administration, wages, number of students at the universities, the continental model contains State supervision under the education system while at the same time allowing academic liberty. The Atlantic model is accenting financial aspects: the State is showing liberal attitude towards universities, the main regulator

is becoming the payment source.

Putting such historical construction on the case of Baltic States we see that the directive model is observable during the Soviet period as a typical aspect of ordered economy.

The continental model was present during the first independence period and we would like to pay the attention to the fact that the restitution of National State contains the restitution of status of universities too, which means that the continental model could be developed again. At the same time the influence of economic liberalism (marketization) and the influence of US in the processes of globalization via development of the world economy and the impact of world-wide organizations are pushing to accept the Atlantic model. For this reason we are seeing the coexistence of both models as a mixture with some predominance of elements from continental model in 90`s and with dominance of pro-Atlantic attitude in 2000`s. We can recognize the same similarities for the welfare system: the emerging welfare system of CEE countries is not derived from the European model but is instead influenced by the model presented by international financial organizations (IMF, WB) and instead of “socialistic” equity with “free” access for everybody the preference is given to economic efficiency – necessity to pay for social services (Šavriņa, Kalnmeiere, 2007).

F.Thompson, W.Zumetta (Thompson, Zumetta, 2001) are recognizing that in the conditions of insufficient financial resources, the creation of private universities is based on 2 functions: 1) access to higher education for a maximal amount of students, 2) elite education in special fields. We consider that in the case of Baltic States (and in other countries of CEE) the main task of private education is the first one. Mass higher education is becoming the main particularity of universities (both State and private) with their costs and benefits. In the year 2012 in Latvia 17 universities (+17 colleges) are public and 16 (+ 8 colleges) are private but 69% of bachelor students are studying in public universities and colleges and 31% studying in private institutions (for master studies the repartition is 83% versus 17%) (Ministry of Education and Science of Republic of Latvia, 2012).

In the case study of Latvia, the most part of students are paying tuition. The year when the number of people studying from own expenses decreased the number of State financed students was academic year 1997/1998. In 2012/2013 63% of all students are studying for their own money and 37% are financed by State (Ministry of Education and Science of Republic of Latvia, 2012). For this reason, the changes in the studies organization process are made: 1) studies only during evening for master students, 2) full time studies during the weekends, 3) State support for students and jobseekers. The advantages and disadvantages for the studies in public and private universities in Latvia can be the subject of another research.

One particular aspect is the necessity to develop the entrepreneurial skills trough the system of education. This is not only due to the market economy; an additional aspect, specific for the Baltic States, appears. The restitution of private ownership by the means of denationalization (the restitution of property rights to their previous owners or to their descendants) is showing the necessity to ensure the continuity of family business (real estate, enterprise and farming). It`s necessary to develop the potential of students to entrepreneurial activity and to own a business start-up. The necessity to develop life long learning system is important.

A particular aspect is the creation of regional universities in order to maintain the young people in their regions and to develop economic activity there. The experience of 20 years is showing that the reality is not meeting the expectations: 1) after the finishing the regional universities the young people are coming to the capital Riga, 2) intra-regional migration is very strong, 3) a balanced regional development is under question, 4) it is now clear that the number of universities in the country is too high. This target can provoke the deepening of another problem: due to the new financial situation at the universities, one of the problems already is the change of generations of teaching staff and the diminishing number of the researchers.

New challenges for the education are appearing with the new dimension: the “new competitiveness” resulting the investments in human capital (in education) related with technologies, quality of services, macroeconomic environment as the pushing factor for competitiveness for individuals, businesses and National economies on international scale.

### Conclusion

Main benefits of transition to the market economy in the field of education are the free choice and the hope to have adequate remuneration for the job requiring correspondent level education. In such conditions main social class of welfare society must be created and developed: the middle class. The representatives of intellectual work have expectations to be appreciated and to achieve convenient position in the stratified society. The analysis of the equity and the accessibility to higher education in the Baltic States during the period of transition and adjustment to the conditions of globalization and economic openness permits making the following main conclusions:

- General picture of the actual higher education in the Baltic States is representing a modern system, corresponding to the international standards whose functioning is closely related to EU aims and expectations for the education. The goal of Baltic States to be reintegrated again in the European and Western society after 50 years favored the introduction of bachelor-master studies system at the beginning of 90`s, which is earlier than in most of the Western European countries.
- At the same time, strong influence comes from previous periods (1) first independence before the Second World War, 2) Remains of Soviet regime is observable in the nowadays system of higher education in Baltic States.
- Development of market economy required to form a large group of specialists whose existence was not possible in ordered economy: managers. The need to have management knowledge during the transition period for all kinds of activities (medicine, culture, education, farming, etc.), in addition to their main job activities, created an excessive demand for the management studies covered by a large supply of education possibilities. Life long learning is one of elements of this new system.
- Liberty of choice and marketization created mass higher education as new phenomenon, losing on the quality and deepness of education. The result of this is the overproduction of specialists in social sciences, overproduction due to the surplus of establishments of higher education.
- After the transition period to the market economy has been accomplished and as the economies of Baltic States are already integrated in EU since the beginning of 2000`s, the main aspect of investments in human capital as postulated by human capital theories – that the investments in education should be ensuring a corresponding level of salary as a revenue from those investments for the individual - is not attained.

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# TRADE IN SERVICES AND ECONOMIC SECURITY OF STATE: CRITERIA OF INTERCONNECTION UNDER CONDITIONS OF GLOBALIZATION

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## Abstract

The influence of trade in services on state of economic security is investigated at the article. The methodology of estimation of influence of trade in services on indicators of macroeconomic and budgetary security is proposed. On basis of analyze, criteria of interconnection between international trade in services and economic security are grounded.

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**Keywords:** Services, economic security of state, national interests

## Introduction:

With the globalization of economic relations and the aggravation of international conflicts, attention is paid on the issue of economic security. An important place in it's system under conditions of the transition of the world economy to a postindustrial stage, the service sector occupies. Existing economic security system today can not fully appreciate the impact of services on its level, making it impossible to develop adequate conditions of modern economic strategy of development. The study of the relationship between services and economic security will create conditions for protection of national interests in the sphere of international trade in services.

Problems of economic security were described in publications of Bazyluk J. , J. Binko , Z. Varnaliy , O. Vlasyuk, V. Geets , B. Gubskiy , G. Darnopyh I . A. Zhalilo , L. Kisterskiy , I. Kravchenko , VI Muntiyanyan , A. Filippenko , V. Shlemko, B. Barry , F. Brown, C. Valters , A. von Geza , M. Hibberta , M. Erlandssona , William Christopher , W. Larnera , ED Mansfield , B. Dredge , S. Okita . But at present lacks substantial research of role of trade in services in providing economic security, indicating the feasibility of study of this problem today.

## I.

Currently there are no methodological approaches to impact assessment of trade in services on the level of economic security, but it seems obvious, that most of indicators used to evaluate the level of economic security directly or indirectly depend on the development of non-production sector.

One of the key elements of the economic security of the state is the macro security, defined as the state of the economy at which macroeconomic reproduction proportions are in the balance. Indirectly, the level of service affects each of the indicators that are calculated as a percentage of GDP and gross income as services sector currently generates a significant portion of GDP and national income in developed countries and countries in transition economies .

The direct impact of macroeconomic security creates the level of shadowing service because as indicator of macroeconomic security an integral index of shadow economy used.

According to the IMF, the share of shadow operations services ranging 37 - 42 % (as of 2010)[1], which is due, in our opinion, to the intangible nature of services and the inability to reliably establish the fact and scope of its provision. Thus, based on the volume of trade in services and a significant level of shadowing can say about the high impact of trade in services at the macroeconomic indicator of safety. Summing up the above, we can conclude high correlation between the state of macroeconomic security and its trading services.

The next element of economic security, under the influence of trade in services is the financial security of the state, which represents a state of fiscal , monetary , banking , monetary systems and financial markets, characterized by balance, resistance to adverse internal and external threats, the ability to ensure the effective functioning of the national economic system and economic growth. Financial security, in turn, contains the following components:

- fiscal security - a state of solvency of the government, taking into account the balance of revenues and expenditures of state and local budgets and the efficiency of public funds. The main indicators of fiscal security are: the level of GDP redistributed through the consolidated budget, the ratio of deficit and budget surplus to GDP, the ratio of deficit / surplus of the trade balance to total trade and the amount of transfers from the state budget ( % of GDP );
- currency security - is a state exchange rate, which creates optimal conditions for sustained development of the country's exports , the smooth flow of foreign investment into the country, Ukraine's integration into the global economic system, as well as protection against turmoil in international currency markets. The main indicators of monetary security are an index of change of rate against the U.S. dollar to that of the previous period, the ratio of foreign currency deposits to total deposits and Ukraine Gross international reserves in months of imports;
- monetary safety - it is the monetary system, which is characterized by the stability of the currency, availability of credit and thus inflation, ensuring economic growth and real incomes. Key indicators of monetary security act monetization, the amount of cash, inflation (prior year ) and lending to the real sector (% of GDP);
- debt security - is a level of internal and external debt including the cost of maintenance and efficiency of internal and external borrowing, sufficient to address the pressing of socio- economic needs. For indicators of debt security are used: the ratio of total debt to GDP, the ratio of public debt to GDP, the ratio of domestic debt to GDP, the ratio of government debt on government securities to GDP.
- security of insurance market - is a level of provision of financial resources of insurance companies, which would give them the opportunity, if necessary, reimburse amounts specified in the contract of insurance losses of their clients and ensure effective functioning. Indicator of the level of safety insurance market serving: insurance penetration rate, the level of claims, the share of long-term insurance, the share of premiums that are non-resident reinsurers and the proportion of share capital owned by non-residents[2].

Effect on trade in services and financial security should, in our opinion, be measured by its elements. In our opinion, the relationship of service and he budget security is undeniable - trade in services provides a significant proportion of revenues to GDP, serves as a catalyst for economic development, and, addressing the main occupation in most economies, provides a high level of tax revenue. Thus, the dual importance of trade in services for the budget and, consequently, fiscal security is one of the fundamental criteria of the relationship of trade in services of the state and its economic security.

In assessing the relationship of trade in services and monetary security special attention should be paid to indicators such as the proportion of long-term loans in total loans

and the volume of bank lending of real economy. In assessing the state of the debt security to identify a direct relationship between the indicators and trade in services was impossible, however indirectly immaterial sphere has an impact on the level of public debt because of its role in the country's budget. Government debt is often used to cover the budget deficit, the size of which, as noted earlier, is closely associated with the level of services development.

The last element of financial security is the security of the insurance market. Each indicator used to assess its condition is the result of trade in services, which gives grounds to confirm a positive link between trade in services and the financial security of state. The value of each of the indicators depends on the level of development and the current situation of the insurance market, and indicators such as the proportion of premiums for residents and non-resident, as well as the proportion of share capital owned by non-residents in the total paid by all insurers authorized funds shows a significant impact of imports of insurance services to the level of economic security.

Thus, the relationship between trade in services and the financial security of the state is indisputable, although the impact of non-material production sector to the financial security is uneven, ranging from optional factor to the basic premise of financial security of state.

The next element of economic security is a manufacturing safety, whose main task is to provide a level of industrial complex that is capable to satisfy needs of growth and expanded its reproduction.

This component of economic security is designed to reflect the impact of industrial sector on the economy, which is, in our opinion, the logical and appropriate. However, analyzing the state of the industry, we can not consider the impact of services on the status of industrial assets, as their installation, maintenance and repair are connected to sphere of non-material production. Thus, the relationship between industrial safety and human services exist, although it is indirect.

There is an undeniable correlation between the level of investment security and trade in services of the country. Investment security is a level of domestic and foreign investment, which can provide a long-term positive economic dynamics and stimulate creation of innovative infrastructure and adequate innovative mechanisms.

Sphere of services is one of the most attractive for investment as it opens a wide field for maneuvering, providing high return on invested capital. Each of the indicators of investment security can be viewed from the standpoint of the sectoral approach that allows to quantify the impact of each on the state of economic security. Although the results of calculations fluctuate depending on the country and determined by the structure of each economy, it can be argued that the contribution of services in the resulting figure will be enough tangible.

Of particular importance in this context acquires foreign trade in services as one of the basic directions of foreign direct investment. It should, however, be noted that the direction of the impact of trade in services with the given component of economic security is not always recognized as positive as it prevails in the structure of investment services, according to experts, increases the risks of instability growth in the long term.

Another element of economic security is the science and technology security, which is determined as a state of scientific, technological and industrial potential of the state, which helps ensure proper functioning of the national economy, sufficient to achieve and maintain the competitiveness of domestic products. The basis of scientific and technological potential is a research branch of economy activity in which, according to the classification of services GATS relates to services (business services, in research and development)[3]. Although the proposed definition of scientific and technological security focuses on the commercialization of scientific developments and use of them as of prerequisites for effective use of productive capacity, the role of services in this context can not be denied.



One of the most sensitive to the effects of trade in services component of economic security is its external component. Security in sphere of foreign economic activity is the state of compliance of national foreign economic interests, ensuring minimization of losses of state from negative external economic factors. Impact of trade in services on the value of each of the indicators is undeniable, as external trade in services is an integral part of export-import operations in any country.

Social Security is a state in which the country is able to provide a decent standard of living, regardless of the impact of internal and external threats. Impact of trade in services in the state of social security is ambivalent: on the one hand, addressing one of the key factors of economic development, the main source of job creation services affect indicators such as social security unemployment, long-term unemployment rate etc. The highest salaries are currently are in financial institutions and air transport, while the wages of workers in the public health care and education remained at 21.6 % - 35.6% below the average for the economy, suggesting the presence of diverse impact of services on the status of the indicators of social security of state[4].

On the other hand, the relationship between services and economic security be traced to such parameters as the amount of expenditures on health and education, because the level of services development has a direct impact on the social protection of the population.

The last element of economic security is food security. Its level is evaluated by indicators that have no connection with the scope of services (daily caloric nutrition, level of carry-over stocks of grain, % of annual consumption and production of grain per person per year). However, under normal operating conditions an important economic impact on the supply of food products makes trade, since it creates connections between food manufacturers and their direct customers. Thus, the sphere of services in this case can be considered an infrastructure factor of food security of the population.

### **Conclusion:**

Thus, we can conclude that existence of strong connections between economic security and services. The main criterion for the truth of this statement, based on the results of the analysis is the role of trade in services in the economic development of the state: impact of trade in services (both internal and external) on the amount of national income and GDP), role in the employment system, role in the process of involvement foreign direct investment, the impact of foreign trade in services on balance of payments. Services can be named a key component of the process of human development in country, as well as the basis of infrastructure.

Looking separately on different services, role of the transport sector in the provision of energy security, place of insurance and banking sectors in ensuring the financial security, importance of trade to food security, the role of foreign trade in services (including transport and tourism) to ensure macroeconomic and external security, impact of education and science on the formation of human potential of the state should be stressed.

The analysis shows the existence of connection between the state of economic security and the level of services development on many criteria. As the factors that influence different indicators of economic security, trade in services plays a key role in strengthening of the state position in international markets, improving the security level as well as in the process of securement of national interests.

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# AN ENQUIRY INTO THE LEASE VS BORROW DECISION OF FIRMS

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## Abstract

Greece has started to employ a new measure of financing with quite important success, especially over the last years, and this is the option of financial leasing. The measure has been decreed and put into effect quite earlier, in year 1986, (while it has been used widely long time ago in the United States and elsewhere) but only lately it has started in Greece to be considered seriously as an alternative source of investment financing.

Three main issues are addressed in this paper. First, an attempt is made to answer the question whether the lease decision and the borrow decision of firms are substitutes or compliments. Assumptions about complementarity run the risk of deciding in favour of leasing. Especially in Greece, where at the moment all leases are treated as operating, lessee firms are candidates for making the wrong assumptions about the impact of leasing in their financial position.

Also in this paper another question is asked, as long as a firm has decided on the lease option, as to how many units of capital equipment of a certain type the company is optimal to employ through leasing. A decision rule is employed and an illustration of this decision rule is made.

The final question which is posed is whether leasing is viewed as a financing or as an investment decision. We believe that trading leasing as a financing decision is a fundamental assumption. Firms though that decide in favour of investment projects based on favourable lease terms only, run the risk of accepting otherwise unacceptable projects and vice versa. What is suggested at present is to view at the combined result of both the investment and financing analysis in order to decide about the acceptability of an investment project.

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**Keywords:** Financing Policy, capital and ownership structure

## Introduction

Financial leasing has been introduced in Greece in 1986, when the legal framework for leasing was set by the Greek authorities. While leasing was already widely used for many years in the United States and elsewhere only during the last years it started being seriously considered as a financing alternative by Greek businesses. Although new as a financial option, the investments made through leasing during the last years, from 1997 to 2002, grew by approximately 25% - 35% per annum<sup>1</sup>. The Association of Greek Leasing Companies projected an even greater rate of growth for investments financed through leasing for the next years.

With interest rates falling dramatically and with the basic economic indicators improving, the Greek economic environment encourages more investments in every industry sector. With an additional financing mechanism available, except for the conventional

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<sup>1</sup> Source: Association of Greek Leasing Companies.

financing alternatives, Greek companies may be able to employ assets for investments easier than before.

In this paper an attempt is made to answer certain questions related to the leasing activity of firms. The first question is taken up in Section Two which tries to compare the lease vs borrow decision of companies. Section Three discusses the optimality decision, regarding the amount of capital equipment the firm should employ, as long as the lease option has been decided. Section Four poses the question as to whether leasing should be treated as a financing or as an investment decision, while conclusions are drawn in the last Section.

### **The Debt – Lease Relationship**

The lease vs borrow decision is a complicated decision for the firm that decides to lease. Leasing vs borrowing or buying is neither a matter of indifference for the firm nor it can be said that leasing is superior to other financing alternatives per se. The use of the term lease vs borrow instead of lease vs buy does not imply that the alternative to leasing is borrowing the asset's acquisition cost. It only recognizes that leasing reduces the borrowing capacity of the firm. Leasing displaces debt on a dollar for dollar basis. A firm signing a lease contract promises to make future payments. These payments are similar to the interest payments of a loan. Therefore, the firm acquiring assets through leasing assumes similar obligations to those firms that obtain their assets through borrowing. Likewise, lessee firms operate at no less risk than indebted firms. It seems reasonable to assume then that since leasing commits firms to similar obligations with those implicit in debt, the total borrowing power of a firm is reduced by an amount exactly equal to the funds which are provided for leasing.

As the early theoretical works of Miller and Upton (1976), Lewellen, Long and McConnell (1976) and finally Myers, Dill and Bautista (1976) have shown, leasing and debt are substitutes. More specifically, the smaller the lease liability the more the firm will borrow through conventional channels. On the other hand the larger the lease liability, the less conventional borrowing. Leasing has an impact on the borrowing capacity of a firm. Based on his empirical findings, Bowman (1980) also concluded that both leasing and debt financing affect the systematic risk of a firm. Same as with debt financing, firms that use lease financing tend to return to their target capital structures almost immediately. In more technical terms the debt ratio and the lease ratio of a firm are inversely related: lease ratio = capitalized assets/total assets $\uparrow$ , debt ratio = total debt/total assets $\downarrow$ . This inverse relationship confirms that lease and debt are substitutes.

Another reason which may also explain the substitutability between lease and debt, is that in practice, banks, lenders and analysts in order to determine a firm's borrowing capacity, examine its ability to cover fixed charges including the contractual minimum lease payments. The debt – lease substitutability is an important assumption that firms have to make in evaluating lease vs borrow. As it can be further shown, this assumption is also built into the lease valuation formula. Firms that assume a complimentary relationship between lease and debt financing, run the risk of deciding in favour of leasing, assuming that leasing has no bearing on their leverage position. Indeed, the cross sectional analysis made by Mukherjee (1991) in a survey of 500 largest US industrial corporations, revealed that a significant 22% of them assumed a complimentary relationship between lease and debt financing. However, the majority of those firms had been engaged only in operating leases while the rest of them had an insignificant leasing activity. The off-balance sheet financing that operating leases provide, it may become misleading regarding the true debt – lease relationship. In Greece, where at this moment all leases are treated as operating, lessee firms are candidates for making wrong assumptions about the impact of leasing on their financial position.

There is only one exception to the substitute relationship between lease and debt. Empirical analysis conducted by Krishnan, Sivarama and Moyer (1994), revealed a

complimentary relationship between lease and debt financing for firms having very high debt ratios. The sample surveyed, consisted of firms having various levels of leasing activity. The firms with very high leasing activity were found to possess different financial characteristics than the firms having a normal leasing activity or used only debt financing. Firms with significantly higher leasing activity, had lower retained earnings relative to total assets, lower coverage ratios, significantly higher debt ratios and higher operating risk. In other words, they had a higher potential for financial distress. The only reasonable explanation for this anomaly can be attributed to the lower bankruptcy costs associated with leasing. Lessors have a superior claim over lenders prior to and after bankruptcy. Consequently, in such circumstances, for firms having already an increased potential for bankruptcy due to high operating risk and high debt ratio, lease financing is available either at a lower cost than debt or it is the only available form of long term financing. Nevertheless, we believe that the above finding can only verify the original assumption that firms should evaluate lease financing as a substitute for debt financing.

Under certain strict assumptions, there is a financial equivalence between leasing and borrowing. When, however, these assumptions are relaxed to reflect more realistic conditions prevailing in the marketplace, then they can explain differences between one form of financing and another. Revealing and understanding the right assumptions which make up the decision framework for the lease vs borrow issue, is of the greatest value to managers, because they can evaluate right what is best for their firms.

To complete the analysis, lessee firms have to decide on two related issues. The first one has to do with the core of the problem which is the lease vs borrow. Having done this first fundamental stage of the analysis and assuming that the firm finally decides to lease, the next thing to determine is how many units of capital equipment of type  $i$  is it optimal to employ through leasing. This is the next issue addressed.

### **Optimality Decision**

Assuming that the lessee firm has decided to lease capital equipment the next step is to determine the number of capital equipment units of the same type  $i$  that is optimal to acquire with this method. The decision rule to be used can be derived from the production theory. Production theory states that a firm can keep adding to its production process additional units of a variable input until the marginal revenue product (MRP) of that type of input is equal to the marginal expenditure (ME) for that input. Miller and Upton (1976) have suggested the use of the same decision rule by lessee firms. The amount of capital equipment of the same type  $i$  can increase up to a point where its marginal revenue product becomes equal to its marginal expenditure which in this case is the minimum lease rental payment.

To illustrate with an example the use of this decision rule, we may assume that lessee X has decided to lease capital equipment of type  $i$  and wants to determine the optimal number of units of equipment of type  $i$  to lease. Additionally we assume that this type of equipment is the only variable input to the firm's production process. To simplify things we may also assume that the lease term is only one period, one year in this case, and the lease agreement calls for a one period rental payment  $L$ . The lease at the end of the period becomes cancellable without any penalty provision for the lessee. The marginal revenue (MR) realized from selling each unit produced by capital equipment of type  $i$  is

$$MR_i = \text{€}10.$$

The periodic lease payment or else the marginal expenditure for  $i$  is

$$L = ME_i = \text{€}1,200.$$

If the production function for lessee firm, that has capital equipment of type  $i$  as the only variable input, is<sup>1</sup>

$$Q = 600i - 40i^2 \quad \text{where } Q \text{ is output,}$$

the optimal number of units of capital equipment of type  $i$  to lease is found as follows

$$MRP_i = ME_i \rightarrow MRP_i = 1,200. \quad (1)$$

Since

$$MRP_i = MR_i \times MP_i = 10 \times MP_i \quad (2)$$

we find first  $MP_i$  by differentiating  $Q = 600i - 40i^2$  with respect to  $i$ ,

$$MP_i = dQ/di \rightarrow MP_i = d(600i - 40i^2)/di \rightarrow MP_i = 600 - 80i.$$

Substituting  $MP_i$  to (2) we get

$$MRP_i = 10 \times (600 - 80i) = 6,000 - 800i$$

and substituting  $MRP_i$  to (1) and solving for  $i$  we finally get

$$MRP_i = 1,200 = 6,000 - 800i \rightarrow i = 6 \text{ units.}$$

The optimal number to lease in this case is 6 units of capital equipment of type  $i$ .

In reality this computation can be more complicated since the number of variable inputs required in the production process of a firm can be very large. Nevertheless, no matter how complicated such a computation may be, this decision should be viewed not as separate but as part of the general lease vs borrow or buy problem.

### Leasing as a Financial Decision

A firm usually has to decide on a number of investment projects. Applying the relevant capital budgeting techniques, the firm undertakes those investment projects that seem to yield positive returns to it. If the firm uses the net present value (NPV) analysis for example, it chooses among those projects that have a positive NPV. According to its capital budgeting restrictions, the firm selects the projects in terms of the highest positive NPV. The next thing to do then is to decide on how to finance these projects. The lease vs borrow is a financing decision and therefore it should be made immediately after any investment decision. Evidence provided from research on corporate leasing analysis conducted by Mukherjee (1991) revealed that an approximate 92% of firms that have been engaged in leasing arrangements, viewed leasing as a financing decision. The remaining 8% of firms treated leasing as an investment decision without further explanation of their choice. We believe that treating leasing as a financing decision is a fundamental assumption. Firms that decide in favor of investment projects based on favourable lease terms only, run the risk of accepting otherwise unacceptable projects and vice versa. What is advisable, is that firms, before accepting or rejecting projects, based on results of the capital budgeting analysis or the investment evaluation stage, proceed to the next stage which is the lease financing evaluation. The combined result of both, the investment and financing analysis, may give different results from those obtained by treating each analysis stage as completely independent from each other. In order for firms to avoid losing positive investment opportunities or avoid accepting projects whose net effect after financing is negative, it is suggested to employ a pattern (see Table 1 below) which uses the net effect of net present value (NPV) analysis and the net

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<sup>1</sup> In case that we had more than one variable inputs, the output function would be more complicated but it would still be a relationship between various combinations of inputs. It is interesting to name at least two cases that can be met more often. One is the case of having at least one variable input that is obtained with leasing and other variable inputs obtained with any other method, and the other case is having more than one variable inputs, all obtained with leasing. Generally in cases having more than one variable input, optimal amounts can be found with the use of partial differentiation. The marginal product of each input is found by differentiating the production function with respect to that input while holding the other inputs constant.

advantage to leasing (NAL) analysis<sup>1</sup>, as the decision rule for accepting or rejecting investment projects.

Table1. Investment Net Effect Decision Rule Pattern

NPV Condition	NAL Condition	Net Effect	Decision
1. NPV > 0	NAL > 0	NPV + NAL > 0	Project Accept
2. NPV > 0	NAL < 0	NPV + NAL > 0	Project Accept
3. NPV > 0	NAL < 0	NPV + NAL < 0	Project Reject
4. NPV < 0	NAL < 0	NPV + NAL < 0	Project Reject
5. NPV < 0	NAL > 0	NPV + NAL > 0	Project Accept
6. NPV < 0	NAL > 0	NPV + NAL < 0	Project Reject
7. NPV = 0	NAL = 0	NPV + NAL = 0	Indifferent
8. NPV = 0	NAL > 0	NPV + NAL > 0	Project Accept
9. NPV = 0	NAL < 0	NPV + NAL < 0	Project Reject
10. NPV > 0	NAL = 0	NPV + NAL > 0	Project Accept
11. NPV < 0	NAL = 0	NPV + NAL < 0	Project Reject

The pattern can be used consistently for any capital asset investment evaluation. Implicit in the pattern, is the assumption that the NPV analysis should be conducted before any financing decision is made. As pointed out previously, a lease or borrow decision can not determine by itself the attractiveness of any capital investment project. This is clearly a financing decision and should follow the investment capital budgeting analysis. Since every capital project needs to be financed, its financing creates side effects on the company's overall position. Sometimes those side effects are stronger than the main effect created by the investment itself on the firm's net position. Investment alternatives should be examined under the light of both the capital budgeting and the financing evaluation analysis. Their combined net effect better determines the consequences of each alternative capital project on a company's future net position. For example, in case 3 from Table 1, though the capital asset project has been deemed worthwhile, its NPV being greater than zero, the firm should be better off if it does not undertake the project. Its financing side effects are such that the overall net effect,  $NPV + NAL < 0$ , is negative to the firm. If the firm undertakes the project, its total market value will decrease.

The pattern can be extended to include the advantage of borrowing to the firm. It does not limit itself to the leasing alternative. Whatever the financing decision of the firm may be, lease or borrow, it still has its impact on the final decision. After all, if the firm can secure a loan with extremely favourable terms for a capital project with negative NPV, the overall effect can be such that it rescues the capital project.

## Conclusion

In this paper an attempt was made to answer certain questions related to a new means of financing investment projects, that of financial leasing. It was indicated that leasing should not be considered as better or superior to other sources of funds per se, other things being equal. And when an investor chooses the lease option, an answer as to the optimal amount of units that should be employed is given. Finally a pattern is provided by which the investment and financing analysis are both combined to give for the investor the best decision rule for accepting or rejecting investment projects.

<sup>1</sup> See Myers, Dill and Bautista (1976) who have developed the famous lease valuation formula by which the lessee can evaluate the attractiveness of a lease. If the net advantage of leasing over borrowing is positive, it means that the lessee is better off with lease financing than borrowing and owning the asset.

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# QUALITY CONTROL IN YOGURT: ALTERNATIVE PARAMETERS FOR ASSESSMENT

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## Abstract

The aim of this paper is to establish the differences in some quality parameters of different trademarks of yogurt-made manufactured products.

Two methods were developed for the purpose of this study. One method consisted in allowing a sample of the product to slide down from the apex of a plastic cone and then through a glass platform positioned at 30° over the horizontal. The other method was a comparative determination of color between samples.

Duration of study 14 months.

Methodology: The sliding index is based upon the fact that liquid or semisolid materials flow freely by the effect of gravity when placed above a tilted surface or above the apex of a cone, to assess the viscosity of semisolid products. The colorimetric testing shows the extreme differences of color imperceptible.

The results obtained in this work show that the sliding index exhibited variable values from product to product of the same manufacturer and from batch to batch of the same product and manufacturer. The above was confirmed when both methods (cone and wedge) were used to obtain these data. The color variations were observed in a similar way as in the tests described.

Conclusion: The use of chromatic characterization could also be employed to study degradation of yogurt products, for it is known that many pigments used in this industry change color with time, due to either degradation, chemical instability or the effect of light.

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**Keywords:** Yogurt, quality, colorimetric testing

## Introduction:

Yogurt is the coagulated milk product obtained by lactic fermentation by means of the action of *Streptococcus thermophilus* and *Lactobacillus bulgaricus*. These microorganisms of the lactic fermentation must be viable and to be present in the product finished in the minimum amount of  $1 \times 10^7$  colonies by gram or milliliter. The hard fermentation takes between 6 and 23 hours, to reach the required acidity and organoleptic characteristics.

Then, the homogenized clot is placed in sterile packages. All yogurts must have a pH equal or smaller than 4,6 [1,2]. The aroma, the flavor and the texture of fermented milky foods are often due to the growth of lactic acid-producing bacteria. These form a diverse group of microorganisms, among which one can mention: *Lactobacillus*, *Lactococcus*, *Streptococcus*, *Leuconostoc*.

Like any other nutritional product, yogurt must fulfill certain prescribed requirements of quality according to the corresponding norms. The control of the quality of this type of product is carried out by means of analysis of the product throughout the process, beginning by the raw material and finishing with the finished product packaged. The final consumers trust the quality of the product and the lower-income consumers look for the low price

trademarks, assuming that the quality is identical to the one of products of higher price. In fact, the enormous variety of products available to the consumer nowadays makes very difficult, from the layman point of view, to count with technical criteria simple, yet reliable enough, as to make an educated decision. Accordingly, the aim of this present work is to evaluate the quality of a yogurt produced through simple methods, yet capable of assessing the main physicochemical characteristics that could help to propose effective quality norms [2-4].

## **Material and methods**

### **Quality tests**

In Mexico, the elaboration of milky products, as well as in the case of other nutritional products, is ruled by parameters of quality according to the Mexican Official Norms. The particular case of yogurt is NOM 181-SCFI-2010, NOM-F-703-COFOCALEC-2004 official norm and the producers follow the norms corresponding to milky products also, in general. These norms are: NOM-155-SCFI-2003, NOM-184-SSA1-2002, NOM-F-708-COFOCALEC-2004 and they establish the physicochemical and microbiological specifications of milky products. However, they do not specify the viscosity or the difference of color neither establish a procedure to benchmarking one trademark with respect to a standard, making their enforcement very cumbersome, to say the least. Accordingly, in what follows we propose two new parameters to be added to the existing norms, namely, the Index of Sliding and the Colorimetric Test.

### **Index of Sliding**

The determination of the sliding index is based on the fact that all liquid or semisolid material flows freely by effect of the gravity when placed onto a wedge. This test was made placing a sample of the product both in a platform tilted 30° and on the apex of a cone. In both cases, the time of sliding of the product is a form to verify the viscosity of the different lots.

### **Colorimetric test**

Colorimetry is the science dedicated to the measurement of the colors and the development of methods for the quantification of the color that is for the obtaining of numerical values of itself. In fact, there exists the need to standardize the color to be able to classify and to reproduce it. The procedure used for the measurement of the color consists basically of adding the answer of *stimuli* by colors and its normalization to the spectral curve of the sensible photoreceptor to color. As a reference, it is customary to employ the so-called spectral curve of the International Commission of Illumination, (known as CIE, after the initial in French). However, it must be noticed that the color is a subjective characteristic that only exists in the eye and the brain of the human observer, being, by no means, an intrinsic characteristic of a material [5].

Colorimetry has had a great expansion due to the cosmetic industry to characterize, for example, shades, inks, dusts and colors for the hair. Using advanced colorimetric techniques make feasible to perform chemical analysis of the surface of many materials, as well as of its response [6]. In the case of food industry, even the slightest change in color can allow to assess the status of the foodstuff or to make decisions from one batch to the next [5].

## **Experimental**

The samples were 3 different trademarks of commercial yogurt (identified as F1, F2 and F3 in this study), readily available in the Mexican market.

A universal support with a lab funnel supported in a ring, was employed (Figure 1a). Underneath the end of the funnel a cone of transparent plastic material, 9 cm in diameter and

18 cm height was placed 1 cm away. The samples of yogurt were stirred for 1 min, at a temperature of 14 °C. Then, 10 ml of each sample were poured and the elapsed time from the vertex to the end of the cone, was recorded (Figure 1b). This procedure was repeated five times with each sample. The measurements were carried out for the 3 different trademarks and several lots of each.



Fig.1. a) Cone system for measuring sliding index. b) Sliding of sample in consecutive stages.

A rectangular flat glass piece (18 x 5 cm) was placed tilted 30° with respect to the horizontal (Figure 2). The samples of yogurt were stirred for 1 min, at a temperature of 14 °C. The sample of yogurt (30 mL) was spilled onto the upper part of the wedge, 1 cm above it and the time to flow through the glass piece was recorded. Again, the procedure was repeated 5 times for the whole set of samples.

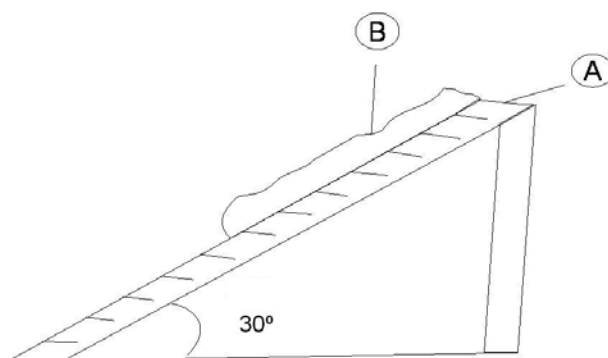


Fig. 2. Platform system for measuring sliding index: A) Glass platform 8 x 5 cm tilted 30° with respect to the horizontal. B) Sample.

A Konika Minolta CIELAB spectrophotometer was employed for the colorimetric characterization. This apparatus provides 3D plots:  $\underline{I}$ ,  $\underline{a}$  and  $\underline{b}$ .  $\underline{I}$  is the intensity, ranging between 0 and 100. Coordinate  $\underline{a}$ , defines the deviation of the achromatic point towards red. Coordinate  $\underline{b}$  defines the deviation towards the yellow, as depicted schematically in figure 3.

The 10 mL samples were stirred for 15 s, at 14 °C before measured in the spectrophotometer.

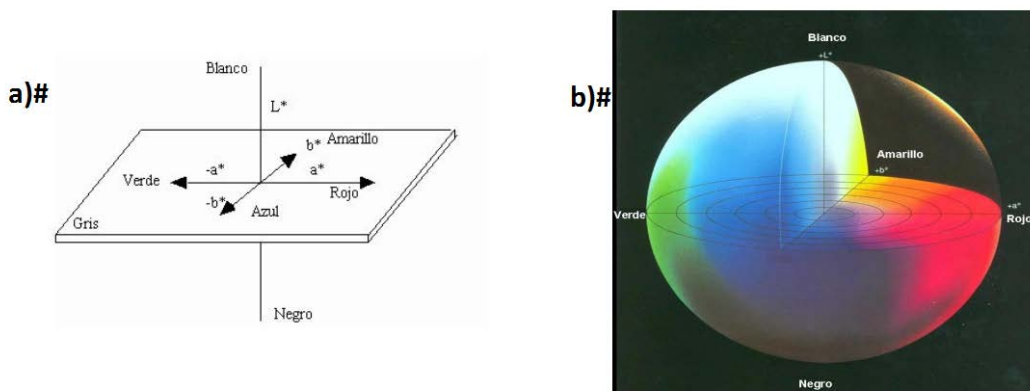


Fig. 3. a) Coordinated Cartesian system. b) Chromaticity space diagram CIELAB.

**Results and discussion**

Figure 4 summarizes the results of the index of sliding.

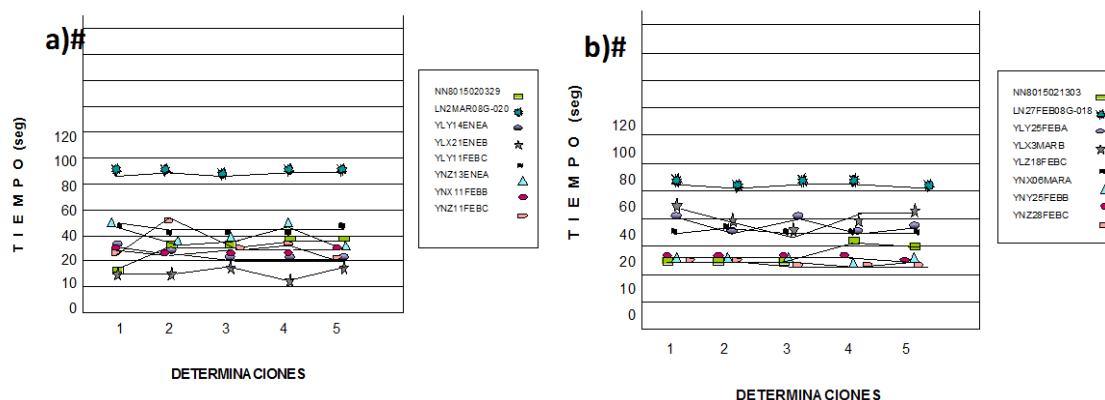


Fig. 4. a) Sliding time of samples from cone system. b) Sliding time of samples from platform at 30°.

As for the colorimetric test, the values obtained for  $\underline{l}$ ,  $\underline{a}$  and  $\underline{b}$ , are shown in figure 5. The behavior of the index of sliding in cone of two of the three manufacturers (F2 and F3) is very similar, presenting values that vary between 16.2 and 46.0. One of the manufacturers (F1) presents an index of 89.8.

The variation from one lot to another of a same trademark (F3: L1, L2, L3) indicates values of 27.6, 16.2, 30.4, showing how two lots in similar conditions may vary.

This is also the case of other product (F2: L1, L2, L3), where 2 of the samples have similar values (32.8 and 30.4) and one different to the others (40.0) as shows figure 4.

The distribution of lots of different products from the three studied trademarks analyzed is summarized in Table I. The behavior, in terms of the index of displacement, of two of the three manufacturers (F1 and F3) is similar (36.8 and 33.0) whereas the other trademark (F2) presents a higher value (89.2).

The third manufacturer presents a similar behavior in two lots in (P1, L1 and L2) with values of 57.0 and 58.8, whereas the third lot (L3) shows a decrease (50.6). The index of one trademark (F3, P2, L1, L2, L3) lies within a similar range (27.6, 33.0 and 29.4).

Two trademarks (F1 and F3) have similar index (36.8 and 33.0, respectively) as can be observed in figure 4.

The distribution of lots of the different products from the three studied manufacturers is summarized in Table II.

According to the chromatic values in figure 5, the behavior varied from one manufacturer to the other, from one product to the other and from one lot to another.

For the third manufacturer, two of the three lots (L2 and L3) are similar in terms of the parameter  $l$  and the other product (L1) is slightly superior to the previous lots (Figure 5a). Figure 5b shows the variation of color of one trademark, in terms of the deviation of the chromatic point  $a$  for the three lots (L1, L2 and L3), showing similar values.

The lots of manufacturers F1 and F2 presented variations of the chromatic point  $b$  from product to product, as observed in figure 5c.

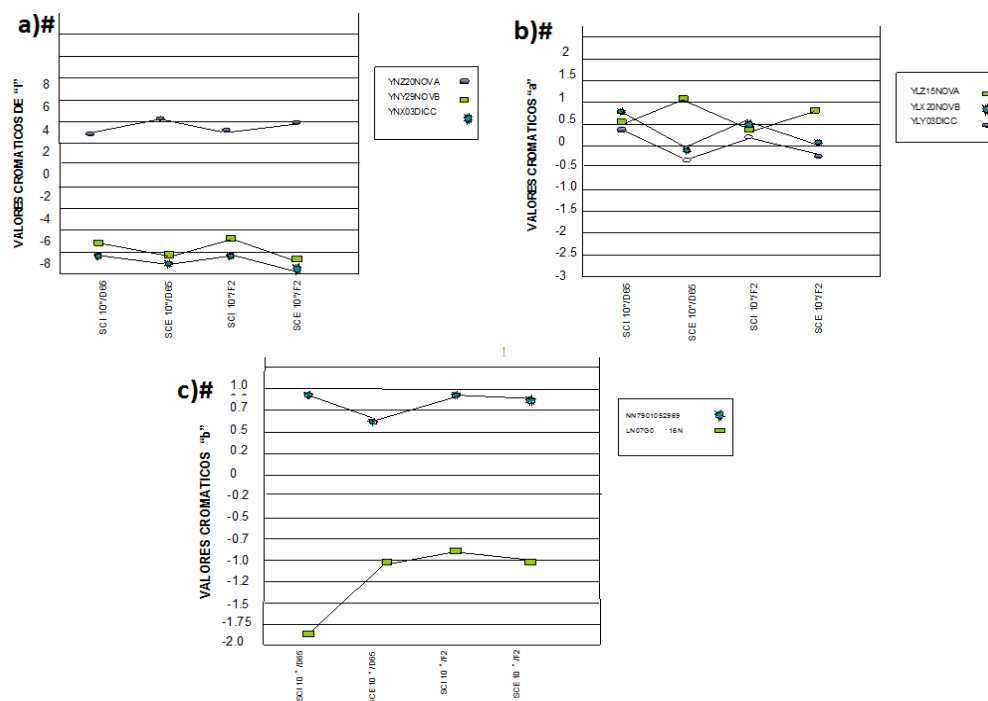


Fig. 5.a) "l" chromatic values for 3 batches of product. b) "a" chromatic values for 3 batches of product. c) "b" chromatic values for 2 batches of product.

## Conclusion:

The results obtained in this work, lead to the following conclusions:

The sliding index presented significant variations among manufacturers, among products and even with different lots in a given trademark, as was verified by the wedge and cone methods, which were constant to each other.

The variations of color, practically imperceptible at sight, also showed important differences among lots and from one trademark to the other.

The index of sliding for products has been validated in such important industries as pharmacy and veterinary, and its use in yogurt-based products could add a simple, yet very indicative way to assess quality control.

In addition to the results shown here, the use of chromatic characterization could also be employed to study degradation of yogurt products, for it is known that many pigments used in this industry change color with time, due to degradation, chemical instability or the effect of light.

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# LOCATION ADVANTAGE AND GEORGIA'S POTENTIAL TO ATTRACT FOREIGN DIRECT INVESTMENT

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## Abstract

This paper reviews one of the elements of Dunning's eclectic paradigm to explain the role of location-specific (L) advantages as determinants of foreign direct investment location. OLI paradigm is a general framework which explains that foreign direct investment (FDI) takes place according to three factors: ownership advantage, location advantage and internalization advantage. Location advantages try to explain why a firm should want to locate in a foreign country. Multinational enterprise will typically engage its foreign production when they find it to be in their best interest to combine their ownership advantages and certain internalization gains with production in foreign country. This paper analyzes the location advantages of Georgia to explain the inflow of FDI to Georgia's economy. It also analyzes the motive behind FDI in Georgia. These motivations serve to determine what policies the host country should pursue in order to facilitate the location of FDI in Georgia's economy.

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**Keywords:** Location advantage, foreign direct investment, resource seeking FDI, market-seeking FDI, efficiency-seeking FDI

## Introduction

The growth interest in Multinational Enterprises (MNE) activities through Foreign Direct Investment (FDI) in Georgia can only be matched with the high expectation of what FDI can achieve in terms of its contribution to economic and social development. Most politicians and analysts agree that developing countries have to rely primarily on FDI as a source of external finance. They argue that for several reasons, FDI stimulates economic growth more than other types of capital inflows. Indeed MNEs own superior technological and managerial capabilities that may spill over affecting the production function of local firms but the effect of FDI and its quality depend significantly on domestic policies, especially measures to develop human capital, and social, physical and institutional infrastructures.

Policy application of location theory has examined ways in which different countries, states and regions can actively compete to be production location for FDI. Location theory is frequently applied by researchers wanting to understand the factors that influence the choice of multinational firms where to locate their foreign operations. Foreign investment location decisions are thought to be influenced by number of country-specific variables. The location advantages need to be present if a firm should want to locate in a foreign country; if not, it will be better for a firm to produce in the home country and only make export to foreign market. Multinational enterprises will typically engage foreign production when they find in their best interest to combine their competitive or ownership advantage which may derive from number of sources and certain internalization gains with production in another country. The specific choice of location production abroad will depend on the presence of location advantage in a country or countries abroad, including economic determinants (e.g. market size, natural resources, and created assets), policy framework, business facilitation measures

and business conditions. Differences between location advantages of different countries are important determinants of the international location pattern of FDI or other types of TNC activity.

Over the last few years, the Georgian Government has taken considerable efforts to improve the country's business environment. The new tax code, passed in 2005, reduces tax rates and the number of types of taxes imposed on business and individuals. The customs code, passed in 2006, reduces the impediments to trade by decreasing the number of customs categories and overall tariff levels for exports and imports. Similar liberalization has been undertaken in the areas of licensing and permits and labor regulations. In many of these areas, most notably the labor regulations and the trade regime, Georgia has now one of the most liberal policy frameworks in the world. Georgia has good transportation links with CIS countries, Europe and Asia, free trade agreement with Turkey and CIS countries. Georgia has also GSP+ with EU, GSP with US, Canada, Japan, Norway and Switzerland. Some important questions therefore need to be born in mind when assessing the location advantage of Georgia? Why has Georgia not become favorable destination for investment? What policies should the host country pursue in order to facilitate the location of FDI in its economy?

The choice of FDI should depend on the motivation for undertaking the investment activity. These motivations serve to determine what policies the host country should pursue in order to facilitate the location of FDI in its economy. To attract FDI and multinational enterprises (MNE) activities, different types of policies (or incentives) are needed to attract the different modes of FDI. Cleeve, Behrman and Dunning suggest that from the perspective of home economies, FDI determinants can be related to different motivations for investment. Based on OLI eclectic paradigm FDI determinants, Dunning points out that the relative attractiveness of FDI locations is determined by investment motivations, which he classifies into four categories: resource-seeking, (horizontal) market-seeking, (vertical) efficiency-seeking and strategic asset-seeking. Different kinds of investment incentives are needed to attract inbound MNC activity of natural resource-seeking, c.f. that of a market or efficiency seeking. Export-oriented FDI is likely to be less influenced by the size of local markets than is import substituting FDI. Investment in R&D facilities requires a different kind of human and physical infrastructure than investment in assembling or marketing, etc. (Dunning 2009).

Location decision for natural resource seeking FDI is thought to be influenced by number of country-specific variables including the availability, cost and quality of natural resources and their development (i.e. processing and marketing); infrastructural development necessary for the exploitation of these resources and availability of joint-venture partners. Investment incentives are also important in resource seeking FDI (Caves, 1996), (Dunning, 2001). Historically, the most important host country determinant of FDI has been the availability of natural resources, e.g. minerals, raw materials and agricultural products.

Dunning also emphasized that large and growing domestic markets, availability and price of skilled and professional labor, quality of national and local infrastructure and institutional competence, macroeconomic and macro-organizational policies and growing importance of promotional activities by regional and local development agencies influence market-seeking FDI (Dunning, 2009). In case of efficiency-seeking FDI, the most significant determining factors are mainly production cast related (e.g., labor, materials, machinery, etc.), freedom to engage in trade in intermediate and final products, investment incentives.

The motivations and driving forces for FDI vary from country to country and between industries. Generally, FDI into countries that are more advanced in the transition process has been more often efficiency-seeking i.e., oriented toward export processing. For example, CEE is becoming increasingly targeted by higher value added production in industries such as electronics and the automobile industry. SEE and Turkey are targets for market-seeking investments and more dispersed industries such as textiles and food-processing but also the service sector. However, in South-East Europe, manufacturing FDI increased in 2011 because

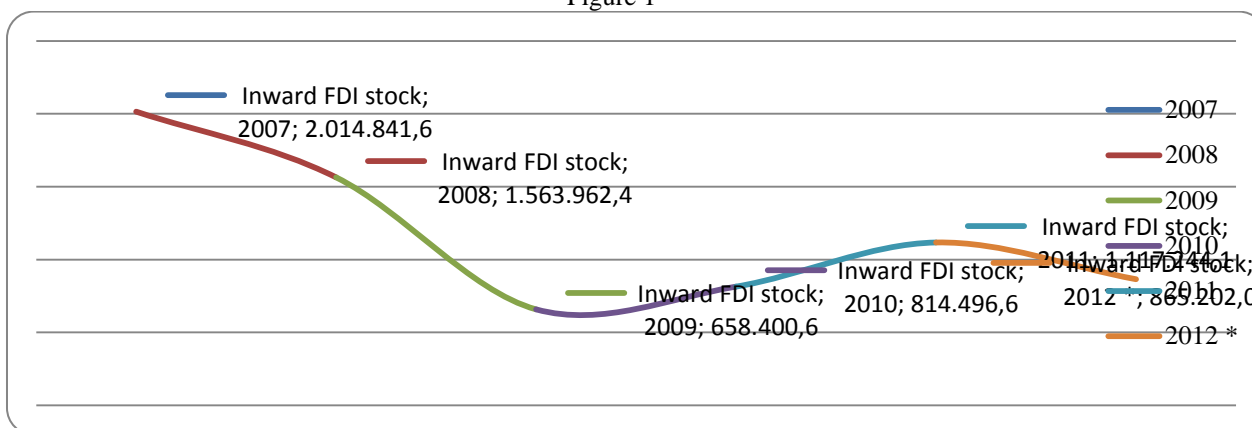


of competitive production costs and open access to EU markets, while in the CIS, resource-based economies benefited from continued natural-resource-seeking FDI (UNCTAD, 2012). In case of CIS countries, one of the most important determinants has been the abundance of natural resources. The inflows of FDI stock in the CIS up to the early 2000 were related to the extraction of natural resources to the construction of pipelines transporting these energy resources and large privatization (Shiells, November 2003).

Georgia is becoming an unattractive location for investments based on the decreased volume of investments over the last three years. Foreign direct investments (FDI) in Georgia amounted to USD 865 million in 2012, 23 percent less from the data for 2011 and up to 6 percent from the adjusted data for 2010.

### Inward FDI stock in Georgia<sup>5</sup> (Thousands of US dollars)

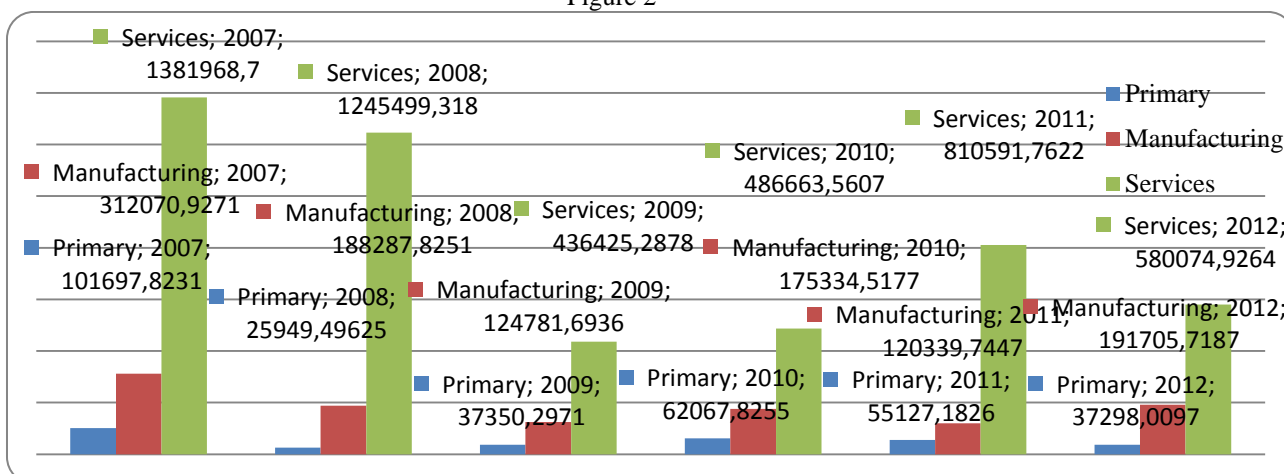
Figure 1



Compared with the same period, in 2011, the value of FDI in the primary sector decreased by 32 percent; FDI in manufacturing rose by 59 percent, while FDI in services remained lower compared with 2011. However, the services sector by far has been the dominant choice of investment from within the broad composition of foreign investments.

### FDI in Georgia by Economic Sectors<sup>6</sup>

Figure 2



<sup>5</sup> National statistics office of Georgia. Inward FDI stock in Georgia.

<sup>6</sup> National statistics office of Georgia. FDI by Economics Sectors.

Predominant motives for investing in Georgia has been resource-seeking up-to 2006 that was related to the extraction of the natural resources, to the construction of the BTC pipelines and more recently, the construction of the gas pipeline transporting these energy resources and basic industries or resource extraction (ferrous metals, magnetite, fertilizers, copper, cement). In particular, high inward flows in 1997 and 1998 were attributable to the construction of the Baku-Supsa pipeline and terminal Supsa. Unsurprisingly, the availability of natural resources, such as oil appears to be the dominant motive for undertaking resource-seeking FDI (Nunnenkamp, 2004).

The second important reason is market seeking. For example, when analyzing the structure of investments in Georgia, it is the fact that they are driven by privatizations in network industries (telecom, energy generation and distribution, ports, oil terminal, media), real estate (hotels).

Investment in real estate and network industries positively impact on the infrastructure of the country but contribute little in terms of production and exports (Shmidt M., 2007). This type of investment is less involved in foreign markets, because, by definition, they mainly have a domestic market orientation. For these reasons, a non-significant result is expected. Moreover, in the long run, the host countries' balance of payments is likely to deteriorate through the repatriation of funds, since market-seeking FDI often does not generate export revenues, especially if the protection of local markets discriminates against exports. Hence, the growth impact of this type of FDI should be weaker than the growth impact of efficiency-seeking FDI.

In case of resource-seeking, FDI is often concentrated on enclaves dominated by foreign affiliates with few linkages to the local product and labor markets for this reason; the level of knowledge transfer may be lower as well.

The current investment inflows to Georgia are probably not sustainable. Access to country's research and development and export-generating manufacturing (machinery and electrical equipment) can be assessed as the less important factor to invest in Georgia which shows that investors do not yet seek efficiency in Georgia. Efficiency-seeking FDI plays an increasingly important role in manufacturing and openness to trade and institutional development is crucial for host economies to attract this type of FDI. According to the "Global Competitive Report", Georgia ranks 61<sup>st</sup> place in terms of institutional development with 4.0 scores. It means that Georgia has some kind of problems in this way. It is not favorable in terms of Property rights, Intellectual property protection, Efficiency of legal framework in settling disputes, judicial independence.

There are positive developments in industries such as food processing (wine, hazelnut, and mineral waters/glass production) and isolated cases of export processing investments in the textile sector.

## **Conclusion**

To summarize, the challenge faced by Georgia is how to ensure that the ownership advantages possessed by TNCs can best contribute to the wider economy.

When designing strategies in respect of FDI participation, host countries need to distinguish between different types of such investment. Each type of FDI has particular impacts on the host country and may therefore require different host country policy responses. It is important to analyse the dynamics and structure of FDI flows and the potential of attracting investments to understand its possible impact on the domestic economy. Georgia needs to clarify in which industries and regions FDI is most needed. Georgia has to identify traditional resources of the country. It is possible to determine three traditional resources: First – strategic location of country; second - agriculture and food industries with the unusual combination of good soils, water and sun; third - broad tourist potential from sea-side to alpine tourism and also using green, trekking and cultural tourism (Sumson I., 2008). And

finally, Georgia has to build its comparative advantages by forming human capital as a result of strong vocational and general education policies because the availability of complementary human capital in the host economies is important for FDI so stimulate economic growth (Borensztein, 1998).

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# FORMATION OF THE ETHICS OF PROFESSIONAL ACCOUNTANTS FROM A MORAL STANDPOINT: ANALYSIS OF DECISIVE FACTORS AND THEIR INFLUENCE

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## Abstract

Economic decision-making by enterprise owners, potential investors and the managers and technologists of an organisation rely on information supplied by accountants. Insufficient or inappropriate understanding of the norms of ethics by accountants or individuals acting in their environment leads to the formation of accountants' unethical behaviour and the problems of accounts handling and finance management. This study analysed the models of professional ethical behaviour presented in scientific literature and used for empirical studies as well as the possibility of their application during an assessment of accountants' professional ethics in the context of their virtues and environment, selected the virtues of accountants and environmental factors having an influence on accountants' motivation to behave ethically/unethically and evaluated the importance of these factors for the ethical behaviour of professional accountants. An analytical study design was used in order to develop a theory-based framework. Using Rest's model of executives' ethical behaviour, we analysed the impact of personal moral identification, business environment and the Code of Ethics for Professional Accountants on accountants' professional ethics. In order to establish whether or not these factors predetermine ethical behaviour of professional accountants, an anonymous survey of professional accountants in business was conducted by asking them to evaluate whether or not the presented virtues and business environment-related cases that are likely to cause professional ethics problems are important in accountant's work. Study results lead to the conclusion that the ethical behaviour perceived by accountants is predetermined by their virtues (a sense of duty, integrity, fairness, attentiveness, independence and self-confidence). Meanwhile, neither a working environment of accountants nor knowledge of the Code of Ethics for Professional Accountants predetermines ethical behaviour.

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**Keywords:** Applied ethics, business ethics, ethics of professional accountants, code of ethics for professional accountants

## Introduction

The importance of the accountant's profession and his/her activity in a modern enterprise is unquestioned. The owners and managers of an enterprise and potential investors adopt important economic decisions on the basis of information supplied by accountants. The correctness of these decisions may depend on the quality of accounting information.

Furthermore, accounting information is a source used to form company's goodwill and evaluate the company by a business environment and the public. Accountants must satisfy such requirements as a high level of professional competences, excellent IT command, flexibility and receptivity to innovations. That cannot be developed by a mere acquisition of vocational education. Already while choosing the accountant's profession one has to evaluate

his/her virtues, moral attitudes and personal culture. One of the requirements to be met by the professional accountant is the recognition of the principles of ethics and their application in daily practice.

On the other hand, accountants must fulfil the requirements of their employers and ensure quality fulfilment of their duties and appropriate representation of the company they work for. It's no secret that often they are faced with the dilemma of choosing between behaviour while strictly adhering to the norms of ethics and satisfying owner's/client's/company director's requirements that breach the norms of professional and personal ethics; between tolerance to and approval of colleagues' unethical behaviour and disclosure of such behaviour; giving priority to the formation of the company's image, even though artificial and simulated, and the provision of objective and true information without violating the requirements of professional ethics.

The ethics of professional accountants is attributable to the area of applied ethics and is normally related with business ethics. Business employs the principles of ethics for the achievement of strategic goals. Being business development specialists, accountants are also working for that goal. Consequently, in the context of business ethics, accounting ethics means improvement of accountants' virtues and humanisation of their activities. On the other hand, accountants are often required by business to behave in a way that is inconsistent with their moral principles, whereas the profession of accountants requires particular adherence to ethical requirements. Inborn virtues and morals of individuals are considered to be one of decisive factors forming the ethics of this profession. However, insufficient or inappropriate understanding of the norms of ethics or wrong interpretation thereof by accountants or individuals acting in their environment leads to the formation of unethical behaviour of accountants and creates the problems of accounts handling and finance management. It is necessary, therefore, to theoretically and practically analyse and evaluate how accountants' ethics is impacted by their behaviour which is formed by virtues, business and the professional environment.

The aim of research is, following an analysis and selection of the factors forming the ethics of professional accountants in the context of their virtues and environment, to evaluate their importance for the ethical behaviour of professional accountants.

To achieve the research aim the following tasks are set:

- to analyse the models of professional ethical behaviour presented in scientific literature and to evaluate the possibility of their application for the assessment of the professional ethics of accountants in the context of their virtues and environment;
- to select virtues of accountants and environmental factors influencing accountants' motivation for ethical/unethical behaviour;
- to evaluate the significance of virtues and environmental factors for the ethical behaviour of professional accountants.

Based on previous research we hypothesized that:

1. Virtues of accountants are relating with their attitude to ethical behaviour.
2. Working environment of accountants is relating with their attitude to ethical behaviour.
3. Knowledge of the Code of Ethics for Professional Accountants is relating with their attitude to ethical behaviour.

### **Theoretical and methodological basis of research**

Rest's four-component model for ethical decision-making and behaviour, widely analysed in scientific literature and used in empirical studies (Jones, 1991; Treviño, Weaver, Reynolds, 2006; De Cremer, Mayer, Schminke, 2010; Ruedy, 2010; Wolcshyn, 2011; Shawver, Clements, 2012; Svanberg, 2012), was selected as the methodological basis of the

study. T.M. Jones (1991) evaluated this model as the theory of ethical decision-making by individuals easily adaptable in the activities of an organisation.

The essence of Rest's model – ethical behaviour by individuals depends on four components – psychological processes: moral sensitivity, moral judgment, moral motivation and moral character.

Moral sensitivity is a process that interprets the situation in ethically relevant aspects. A person understands that there is a moral problem (Svanberg, 2012). Here, the decisive role is played by individual's consciousness and his/her efforts to analyse and appropriately interpret events. Only a good understanding of the existing situation makes it possible to draw conclusions about its relationships with ethics (Ruedy, 2010).

The second stage involved moral judgment of the situation. In most cases scholars analyse the impact of demographic indicators, such as gender, age and education, on decision-making (Akman, 2011; Azevedo, Cornacchione Jr, 2012; Iswari, Kusuma, 2013). However, as emphasised by P.A. Marques, J. Azevedo-Pereira (2008), L. Kretzschmar, and W. Bentley (2013), one's ethical ideology, i.e. the principles of ethics adopted and recognised by the individual, are at least equally important.

According to Rest's model, subsequent decision-making is based on moral motivation. This factor is important from both business (Wolceshyn, 2011) and social (Brekke, Kverndokk, Nyborg, 2003) standpoint. In practice this means that moral values take precedence over other values, e.g. material ones. Concurrently, responsibility is assumed for the results of a future decision (Svanberg, 2012).

The final component of the Rest model is moral character (having in mind decision-making), regardless of the fact that one encounters an opposite opinion or the temptation to behave to the contrary. Some scholars (Hartman, 1998) emphasise the influence of personal interests on moral/unmoral behaviour, while others (Bonaci, Strouhal, 2012; Cheng, 2012) stress the importance of business and social environment.

All four components of the model are closely interrelated, whereas success in any of them does not mean success in other stages of the ethical behaviour process.

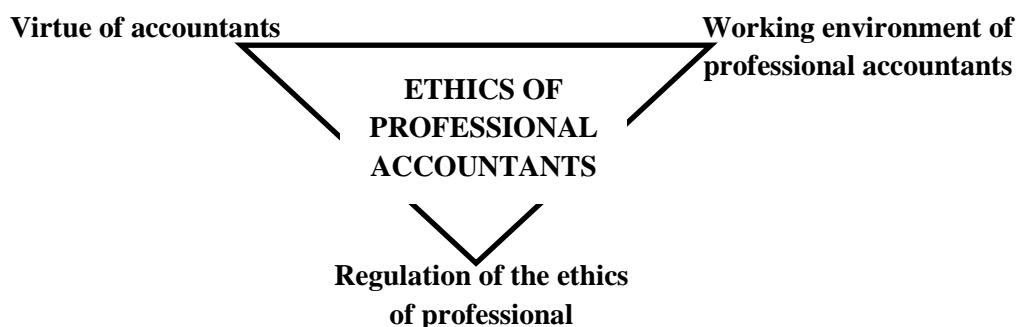
While analysing ethical behaviour in organisations, L. Treviño, G.R. Weaver, and S.J. Reynolds (2006) expanded the Rest model by noting that the ethical behaviour of individuals in an organisation is predetermined by two attributes: individual and contextual. As maintained by the authors, individual ones are cognitive, affective and identity-based dimensions predetermining ethical behaviour. They subdivide the contextual attribute into two ones – organisational and issue-related.

In professional decision-making accountants also behave according to the analysed Rest model. However, it is necessary to highlight three peculiarities typical of the ethics of professional accountants. First, accounting practitioners must strictly adhere to the established ethical standards as defined in the Code of Ethics for Professional Accountants (Handbook, 2013). The Code has established a normative approach to the ethics of professional accountants. It is normative because it places a value – positive or negative – on particular practices, and it attempts to ground these assessments on ethical norms and/or values (Kretzschmar, Bentley, 2013).

However, as noted by N. Martinov-Bennie and G. Pflugrath (2009), the code of ethics is effective only in case employees for whom it is designed have a good understanding of its requirements and accept them internally. This only proves another peculiarity characteristic of the ethics of professional accountants – each accounting practitioner is a personality with acquired and mastered principles of ethics and judging any situation from the standpoint of own ethical philosophy. This peculiarity of professional accounting ethics correlates with the second stage of Rest's model (moral judgment) and the aforementioned scientific studies (Treviño, Weaver, Reynolds, 2006; Marques, Azevedo-Pereira, 2008).

It is wrong to deny another peculiarity of the accountants' profession – in their work accountants inevitably communicate with the company's other employees – primarily, with company managers and owners, and the suppliers of the company they work for and the buyers of its products and services. For this reason the ethics of professional accountants is ascribed to the area of business ethics. The ethics of professional accountants in perspective of business ethics is the activity of accountants following professional codes and norms as they handle the interest relationships between individuals and enterprise, enterprise and society, operators and investors (Cheng, 2012). Firm owners and managers are often interested in firm's performance that is more favourable to them, lower taxes and a better image of the firm in the eyes of competitors and business partners. The accountancy profession has claimed to be both moral and ethical throughout the 20th century, but this assertion has been questioned by the regulators, legislators, investors, and stakeholders (McKinney, Emerson, Neubert, 2010; Meihami, Varmaghani, Meihami, Khaledian, 2013). G. Venezia, C. C. Venezia and C. W. Hung (2010) describe that situation as ethical work climate to be taken care of by all stakeholders.

In summary it can be stated that an analysis of the formation of the ethics and ethical behaviour of professional accountants can be performed by analysing the influence of two factors – virtues and the environment. The formation of the virtues of accountants is predetermined by inborn personal features and a peculiarity of the ethics of professional accountants – standardisation of ethics. Since accountants have to respond to environmental effects on the basis of the norms of professional ethics, they unquestionably impact these relationships as well. Consequently the motivation of ethical behaviour is formed by three interrelated components: virtues, environmental effects and standardisation of the ethics of professional accountants (Fig.)



*Fig. Factors influencing the ethics of professional accountants*

The Code of Ethics for Professional Accountants (Handbook, 2013) lays down the following most important principles of the ethics of professional accountants: Integrity, Objectivity, Professional Competence and Due Care, Confidentiality and Professional Behaviour.

The principle of integrity requires being straightforward and honest in all professional and business relationships. Integrity is one of the virtues, the good feature, that needs to be rooted in personal character to be practically applied (Kretzschmar, Bentley, 2013). In the opinion of D. de Cremer, D.Mayer, M.Schminke (2010), integrity is that particular principle whose practical application enables knowing the way of ethical behaviour anytime. According to the data J.P.T. Fatt study (1995), both accounting practitioners and students consider integrity to be the key requirements in respect of the ethics of professional accountants.

Adhering to the principle of objectivity an accountant should not allow bias, conflict of interest or undue influence of others to override professional or business judgments. In order to behave objectively, an individual must have a strong character and self-confidence to be able to disregard personal interests and behave correctly (Hartman, 1998). L. Kretzschmar, W. Bentley (2013) emphasise that individuals for whom ethics is not a virtue or moral philosophy

will never be able to behave objectively in terms of ethics. On the other hand, E. Hartman (1998) states that self-confidence in acting on one's principles while ignoring good arguments against them is not, for stubbornness is no virtue, even though in some cases stubbornness will lead to a good outcome.

Professional Competence and Due Care are closely linked with such virtues as a sense of duty, accuracy and attentiveness. On the other hand, Professional Competence – knowledge and skill at the level required to ensure that a client or employer receives competent professional services – is acquired during studies and life-long-learning. This is the key principle due to which scholars are interested in the Code of Ethics for Professional Accountants as a source of justifying requirements established for accounting professionals (Uysal, 2009). Accountants who have failed to develop attentiveness and a sense of duty can do their job well, but will never earn confidence from professional and business environment (Spalding, Oddo, 2011). The principle of Professional Competence and Due Care is closely related to the principle of integrity, as ethical professional behaviour must reach harmony between what and how needs to be performed and what is being performed (Novicevic, Zikic, Martin, Humphreys, Roberts, 2013).

A professional accountant must respect the confidentiality of information acquired as a result of professional and business relationships and not use the information for the personal advantage of the professional accountant or third parties. This principle is closely related to such virtues as independence, integrity and fairness. Professional accountants have a duty to perform with skill and care instructions provided to the client or employer that are compatible with the requirements of integrity, objectivity and, if self-employed accountants, with independence (Uşurelu, Marin (Nedelescu), Danailă (Andrei), Loghin, 2010). However, J.P.T. Fatt (1995) study data show that the accountants considered only independence as quite important. In many cases accountant's independence depends on how he or she defines himself or herself relative to the organization (Novicevic, Zikic, Martin, Humphreys, Roberts, 2013). This principle is related with the accountant's virtue to maintain loyalty in any circumstances. Loyalty to the client or employer most often includes the necessary maintenance of confidentiality of information about that client or employer (Spalding, Oddo, 2011).

Mere professional knowledge and skills are not enough for the ethical behaviour of an accounting professional and therefore the Code of Conduct for Professional Accountants requires Professional Behaviour. Each accountant must have a thorough knowledge of legal acts relevant to his/her work and observe them in order not discredit his/her profession (Spalding, Oddo, 2011). There is a need for customers, employers and other stakeholders can be clearly identified those accounting professionals (Uşurelu, Marin (Nedelescu), Danailă (Andrei), Loghin, 2010).

### **Research methodology**

This study is designed on the bases of the quantitative research method. In order to establish whether virtues, working environment and knowledge of the code of ethics predetermine accountants' perceived ethical behaviour, a study was conducted involving a survey of professional accountants in business by asking them to assess whether or not the presented virtues are important in accountant's work and evaluate the given cases in accountant's work which are likely to cause the problems of professional ethics.

In order to measure the perception of ethical behaviour the respondents were asked to evaluate the importance of generally accepted principles in their work. Five principles of the Code of Ethics for Professional Accountants were presented to the respondents: Integrity, Objectivity, Professional Competence and Due Care, Confidentiality, and Professional Behaviour.



While measuring the influence of individual's virtues on the perception of ethical decisions by accountants the respondents were asked to evaluate the importance of presented virtues in their work. The accountants' survey involved six virtues: a sense of duty, integrity, justice, attentiveness, independence and self-confidence.

Accountant's working environment (accountant's relationships with colleagues and managers) was measured by asking accounting practitioners to evaluate whether or not the presented cases in accountant's work are likely to cause the problems of professional ethics. Examples of the cases given in the questionnaire: the accountant is afraid of losing his/her job; the accountant is closely associated with the firm's manager; the manager forces the accountant to keep erroneous accounting; the accountant has personal interests in the firm (e.g. help to a relative or neighbour), which purchases products or services from the accountant's employer.

To investigate empirical findings, questions of this study were both general and specific. Items of the Questionnaire included a Likert scale.

The survey was conducted using an anonymous questionnaire. In order to measure the reliability of data, the Cronbach's was applied which showed that an internal reliability coefficient for the composed scale was 0.862. Data were analysed using the software SPSS 16.0. Statistics were analysed using descriptive statistics, Spearman's rank correlation coefficient, and Mann-Whitney and Kruskal-Wallis tests.

The questionnaire was designed to explore the perception of professional accountants in business for ethical behaviour at work. The questionnaire was composed using the Code of Ethics for Professional Accountants (Handbook, 2013), Rest's (1986) model and studies by L. Treviño, G.R. Weaver, S.J. Reynolds (2006).

## Results

Researchers distributed 100 questionnaires of which 86 were returned. The response rate was 86%.

The results indicate that the survey involved 83 women (96.5 %) and 3 men (3.5 %). Most respondents were aged between 30 and 50 (41; 47.7 %) and over 50 (37; 43 %). A mere 9.3 % of the respondents (8 respondents) were aged below 30. A total of 65.9 % of the respondents have acquired higher education, while the remaining 34.1 % have not received it. The majority of the respondents, 73.3 %, hold the position of Chief Accountant in a company, 1.2 % – Deputy Chief Accountant, 19.8 % – Accountant, while other positions (bookkeeper's, cashier's) are taken by 5.8 % of the respondents. More than half of the respondents, 59.5 %, have working experience of more than 20 years. 14.3 % of the respondents have working experience of a maximum of 5 years and of 5 to 10 years, and 11.9 % of the respondents have working experience of 10 to 20 years.

The performed analysis of scientific publications about accountants' attitude to ethical behaviour leads to the conclusion that virtues of accountants are related to their attitude to ethical behaviour. The study analysed six virtues: a sense of duty, integrity, fairness, attentiveness, independence and self-confidence. It has been assumed that the greater importance an accountant attaches to his/her virtue, the more ethical behaviour in work he/she will perceive. Research results are presented in Table 1.

Table 1. Correlation of the virtue of accountants with perceived ethical behaviour

	Perceived ethical behaviour	
	Correlation coefficient	p
<b>Sense of duty</b>	0.376	0.000
<b>Integrity</b>	0.431	0.004
<b>Fairness</b>	0.311	0.000
<b>Attentiveness</b>	0.377	0.000
<b>Independence</b>	0.413	0.000
<b>Self-confidence</b>	0.572	0.000

The obtained results have confirmed the hypothesis that virtues of accountants can have an influence on their perception of ethical behaviour. The more importance an accountant attaches to such virtues as a sense of duty, integrity, fairness, attentiveness, independence and self-confidence, the greater perception of his/her ethical behaviour at work he/she will have. Since the correlation coefficient obtained in the analysed sample is not high, it can be stated that these results are characteristic in the analysed group of professional accountants in business.

Another two hypotheses were made on the basis of the performed analysis of scientific literature – the perception of ethical behaviour by accountants is related to their working environment and knowledge of the code of ethics. The accountants who look upon their working environment as a potential cause of ethical problems were expected to perceive their behaviour as more unethical. Research results are presented in Table 2.

Table 2. Assessment of accountants' attitude to ethical behaviour taking into account knowledge of the code of ethics

	Perceived ethical behaviour	
	Correlation coefficient	P
Accountants' working environment	0.076	0.490
Knowledge of the code of ethics	0.182	0.097

The Spearman's rank correlation coefficient did not show any direct link between the environment in which an accountant works and how he/she perceives ethical decisions. However, in order to make a more accurate data analysis, an evaluation was performed on a case-by-case basis. The Kruskal-Wallis test used in this study has shown that if an accountant has personal interests in the company (e.g. help to the relative or neighbour) supplying his/her employer with raw materials, this can predetermine his perception of ethical behaviour ( $p = 0.074$ ).

The study analysed whether or not knowledge of the code of ethics had an influence on how accountants perceive ethical behaviour. The performed statistical analysis has shown that the knowledge of the code of ethics has no influence of the perceived ethical behaviour of accountants.

With a view to verifying the obtained results the Mann-Whitney test was performed. It has shown that regardless of whether or not accountants are familiar with the code of ethics for accountants and whether or not they are interested in the topicalities of the ethics of professional accountants their attitude to ethical behaviour does not change.

Table 3. Assessment of accountants' attitude to ethical behaviour with regard to knowledge of the code of ethics

Attitude to ethical behaviour	Groups	Group size	Mean rank	Statistical Z-score	Test p-value (two-sided test)
<b>Knowledge of the Code of Ethics</b>					
Have you familiarised yourself with the Code of Ethics for Accountants?	Yes	64	45.33	-1.946	0.052
	No	20	33.45		
Are you interested in the topicalities of the ethics of professional accountants?	Yes	72	42.33	-0.323	0.747
	No	11	39.86		

Research results lead to the conclusion that the perceived ethical behaviour of accountants can depend on their virtues such as a sense of duty, integrity, fairness, attentiveness, independence and self-confidence. In the meantime accountants' working environment and knowledge of the code of ethics have no influence on perceived ethical behaviour in the analysed sample.

## Discussion and Conclusion

The study was conducted on the basis of Rest's model (1986) and studies by L. Treviño, G.R. Weaver, S.J. Reynolds (2006) by recognising that the ethical behaviour of individuals

depends on four components – psychological processes: moral sensitivity, moral judgment, moral motivation and moral character. In professional decision-making accountants also behave according to this model. However, it is necessary to highlight three peculiarities typical of the ethics of professional accountants: strict adherence to the established ethical standards as defined in the Code of Ethics for Professional Accountants; each professional accountant in business judges each professional situation from the viewpoint of inborn and developed ethical philosophy; accountants bear responsibility for the preparation and submission of information important to the organisation and the public and therefore they inevitably communicate with other employees of the company, primarily with company's managers and owners and with the suppliers of the company they are working for and the purchasers of its products and services. Consequently the motivation of accountants' ethical behaviour is formed by three interrelated components: virtues, environmental impact and the standardisation of the ethics of professional accountants.

In order to establish whether or not these three components predetermine accountants' ethical behaviour, a study was conducted involving a survey of professional accountants in business by asking them to assess whether or not the presented virtues are important in accountant's work and evaluate the presented cases in accountant's work which are likely to cause the problems of professional ethics. According to the literature analysis (Martinov-Bennie, Pflugrath, 2009; Treviño, Weaver, Reynolds, 2006; Marques, Azevedo-Pereira, 2008) in this research we hypothesised that accountants' ethical behaviour is influenced by six virtues (a sense of duty, integrity, fairness, attentiveness, independence and self-confidence). The study's results have shown that the perceived ethical behaviour of accountants is predetermined by their virtues. J. A. McKinney, T. L. Emerson, M. J. Neubert (2010), B. Meihami, Z. Varmaghani, H. Meihami, M. Khaledian (2013), Y. Cheng (2012) G. Venezia, C. C. Venezia and C. W. Hung (2010) states out that accountants are not eliminated from the working environment and work climate can influence their perception of ethical behaviour. However in this study accountants' working environment has no influence on perceived ethical behaviour. As analysed in literature review (Kretzschmar, Bentley, 2013; Spalding, Oddo, 2011; Uysal, 2009) the Code of Ethics for Professional Accountants establishes the norms of ethical behaviour for accountants. Present research shows that the Code of Ethics has no influence on perceived ethical behaviour.

To sum up, the study's results have shown that the perceived ethical behaviour of accountants is predetermined by their virtues. Neither accountants' working environment nor knowledge of the Code of Ethics has an influence on perceived ethical behaviour.

Limitation of the study – the survey questionnaire excluded questions associated with a likely influence on the ethics of professional accountants by the employees of public (Tax Inspectorate and State Social Insurance Fund Board) and finance (banks, leasing companies, credit institutions) institutions.

While developing this study it would be useful to analyse how the public, future accountants (students) and their teachers (experts) evaluate the significance of the analysed factors for the ethics of professional accountants; whether these factors are equally important for the formation of the professional ethics of finance and management accountants; what influence the analysed factors have on the quality and reliability of accountants' performance.

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# THE EFFECTS OF INTERNATIONAL TRADE ON INTERNATIONAL MONEY LAUNDERING FROM THE PERSPECTIVES OF INTERNATIONAL LAW AND INTERNATIONAL TRADE IN TURKEY

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## Abstract

Globalization has influences on economies of all countries. Not only the capital but commodities became very important part of global mobility. Many countries tried to cooperate and collaborate to adopt their own national law and principles for both capital mobility and commodity mobility. However, in international trade, there are observations about trade of either illegal goods or trading international but caused to international money laundering. This paper will analyse money laundering mechanism based on the trade of goods and services, commonly known as trade based money laundering. Specifically, Turkey will be the specific case.

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**Keywords:** International money laundering , international trade, capital movement

## Introduction

Money laundering is defined as the conversion of criminal incomes into assets that cannot be traced back to the underlying crimes. The number and scope of laws and regulations for overcoming money laundering have expanded dramatically within last decades.

Money laundering is conventionally divided into three phases: placement of funds derived from illegal activity layering of those funds by passing them through many institutions and jurisdictions to disguise their origin and integration of the funds into an economy where they appear to be legitimate. Although, the anti-money laundering regime has many objectives including the goals of reducing crime, preserving financial system integrity and controlling terrorism corruption and failed states.

In this paper, the money laundering activities through international trade will be analysed. The main focus will be on Turkish economy.

### Trade based money laundering

Many criminals seek to disguise the origins of their criminally derived funds by engaging in money laundering to enable them to benefit from their criminals and avoid detection by the authorities. Organized criminals follow their benefits to money laundering to enhance their lifestyle and to the profits of their crimes to be reinvested in future criminal activities or in legitimate business operations.

Trade based money laundering (TBML) is to disguise proceeds of crime and to mask legitimately obtained funds that are directed towards terrorism and other criminal activity (Sullivan and Smith, 2013). TBML techniques vary from simple fraud such as the misrepresentation of prices, quantity or quality of goods on an invoice to complex networks of trade and financial transactions. While TBML schemes most commonly involve the

misinterpretation of price, quantity or the type of merchandise, trade in intangibles (such as information and services) is emerging as a significant new TBML frontier also known as service based money laundering. Trade based money laundering obscures the true origin of funds. TBML does not include transportation of cash and bearer negotiable instruments and the services provided by alternative remittance dealers. The growth in volume and value of world trade and the relative ease of disguising the true nature of the trade and the relative ease of disguising the true nature of the trade made attractive money laundering very attractive (Sullivan and Smith, 2013). Increased reporting and analysis of financial transactions as a result of anti-money laundering counter terrorism financing initiatives made trade more attractive as a vehicle for money laundering (Financial Action Task Force, FATF, 2006).

Trade based money laundering includes a variety of schemes that enable the cash to be separated from the crime early in the money laundering process. The most common methods of trade based money laundering in the USA was the Black Market Peso Exchange (BMPE) in which Colombian drug trafficker swap illicit dollars in the United States for clean pesos in Colombia. Other methods include manipulating trade documents to over or under pay imports and exports and using criminal proceeds to buy gems or precious metals.

Trade based money laundering schemes often allow criminals to distance themselves from the money laundering process, complicating law enforcement investigations. Immigration and Customs Enforcement (ICE) in the USA analysed outbound trade data and financial and payment data including forms mandated by the Currency Report, Report of International Transportation of Currency or Monetary Instruments, Report of Cash Payments over \$10,000 received in a trade or Business and the Suspicious Activity Report in an effort to spot the anomalies that would indicate trade based money laundering. The Drug Enforcement Administration investigates narcotics money laundering, regularly

Criminal Organization may resort to a number of alternatives to the BMPE for transferring value into or out of the country. Each of these methods based on the misuse of international trade documents. Among the most frequently encountered schemes are over and undervaluation, misclassification and double invoicing. Each of these schemes is a separate offense that may also be an element of the crime of money laundering

Two of the most common schemes on money laundering are over and under valuation. If the invoice overstates the true value of the related merchandise, it means the importers pay more for the merchandise than it is truly worth. This is considered as justification for the importer to move money offshore for the imported goods. An undervaluation scheme is the same thing in reverse. An importer receives merchandise that is worth more than declared in the invoice. When the importer sells the undervalued merchandise, he receives more than the value reflected in the official documentation. If the transferred value represents illicit proceeds, the result is money laundering. Business have attempted to over and under value trade goods in an effort to dodge government trade deficit, taxes or other fees based on the value of the merchandise sent or received.

Foreign Trade Zones application is another method for facilitate money laundering. Although, originally it aims to promote manufacturing in the host country. When the manufacturers import parts and materials outside of a Foreign Trade Zone they pay import duties based on the value of the finished product rather than the value of the components parts. Manufacturers defer, reduce or even eliminated the Customs duties at foreign trade zone. Total value of money laundering as in free trade zone in the USA was considered \$250 billion at 2006. Often criminal operations within Free Trade Zone involve some type of import export scheme. False documentation involves fabricated Bills of Lading and fictitious names and addresses are used to misrepresents imports and exports often with customers broker who is in collusion with the criminals, "brokering" the documents.

Transfer pricing as a means of shifting taxable income from the country in which it was earned to another country in order to minimize tax (Boyrie et al, 2005)

Precious commodities and metals can be used as alternative to cash to transfer value across borders. Like gold and other precious metals, diamonds are attractive to money launderers because they are easily concealed and transported and because they are mined in remote areas of the world and are virtually untraceable to their original source. Even when diamonds are transported openly, it is relatively easy to mislabel the quality value of a diamond for money laundering purposes. There is growing worldwide recognition of the need to scrutinize unusual trade patterns involving commodities. An example is “conflict diamonds” emerging from West African do not have resources of diamond countries and exported to Belgium ( FATF :50) . The FATF report explains money laundering as follows:

*Payments to vendor made in cash by unrelated third parties*

*Payments to vendor made via wire transfers from unrelated third parties*

*Payments to vendor made via checks, bank drafts or postal money orders from unrelated third parties*

*False reporting: such as commodity misclassification, commodity over-valuation or under-valuation*

*Carousel transactions: the repeated importation and exportation of the same high-value commodity*

*Commodities being traded do not match the business involved*

*Unusual shipping routes or trans-shipment points*

*Packaging inconsistent with commodity or shipping method (FATC, 2008)*

### **Studies on trade based money laundering**

Lall (1973) investigated over-invoicing by a small sample of Colombian pharmaceutical firms with foreign affiliates. The governmental restrictions on profit repatriation were important issue in international trade. Foreign exchange and capital controls in Colombia during the 1960s stimulated multinational firms to raise their intra-firm prices above the arm’s-length level as a means of transferring profits out of the country. Lall finds that related-party prices ranged 33 to 300 per cent higher than arm’s-length prices in local, regional and world markets during 1968 to 1970.

At 2001, Swenson studied the relationship between country corporate tax (and tariff) rates and transfer prices. Swenson (2001), using annual U.S. import data for five countries during the 1980s, analysed the response of average unit values across all (unobserved) transactions within country-product pairs to variations in U.S. import tariffs and foreign tax rates. She finds evidence that changes in prices are consistent with incentives based on taxes and tariffs but that the economic magnitudes are small.<sup>16</sup>

Clausing (2003) used data on import and export product prices collected by the Bureau of Labour Statistics (BLS) from 1997 to 1999 to investigate the effect of country corporate tax rates on related-party prices. The BLS data separately identify intra-firm and arm’s-length transactions. Clausing found out price responses in the expected directions, i.e., higher taxes abroad are associated with higher export prices and lower import prices for related-party transactions. She estimates suggest that a 1 per cent drop in taxes abroad reduces U.S. export prices between related parties by 0.9 to 1.8 percent.<sup>1</sup>

### **Anti -money laundering legislation**

The anti- money laundering effort by the United States began with the passage in 1970 of the Bank Secrecy Act, which was largely domestic in nature and covered only depository institutions. The 1970 Bank Secrecy as amended by the USA. Patriot Act forms the legal framework for governmental bodies to implement the country’s anti money laundering policies. Initially, US Money Laundering (AML) focused on organized crime groups in



particular, war on drug. After September 11, 2001, terrorist financing activities received more attention. This change in emphasis had several motivations, some well-intentioned and others more cynical- simply seizing on anxiety over national security to strengthen US AML that many specialists had been seeking for years.

The 2005 Money Laundering Threat Assessment is the first government wide analysis of money laundering in the United States. The report is the product of an interagency working group composed of experts from the spectrum of US Government. In the USA, comparing domestic and foreign import-export data to detect discrepancies in the Harmonized Tariff Schedule, country of origin, manufacturer, importer-exporter, ultimate consignee, broker, unit price, commodity activity by the time period, and port of import –export.

Analysing financial information collected to identify patterns of activity involving the importation –exportation of currency, deposits of currency in financial institutions, reports of suspicious financial activities and the identity of parties to these transactions. Examining domestic import data with an automated technique, such as Unit Price Analysis to compare the average unit price for a particular commodity and identify traders who are importing commodities at a substantially higher or lower price than the world market.

Comparing information such as the origin, description and value of the goods, particulars of the consignee and consignor and the route of shipment with intelligence information in existing databases to detect any irregularities, targets or risk indicators.

*Using statistical analysis methods such as linear regression models, on trade data concerning individual non aggregated imports and exports.*

*Comparing export information with tax declarations to detect discrepancies.*

*Paying particular attention to trade transactions that display known flag indicators of TBML FT activity.*

*Cross comparing known typologies of risk with trade data, information on cross border monetary transfers associated with the payment of goods, intelligence tax and wealth information*

After recognizing anomalies and discrepancies in trade and financial transactions are identified, appropriate follow up action could involve asking the trader for further explanation and supporting documents, auditing traders who have presented discrepancies to check the volume of their business regularity of their operations, the kind of goods exported and connections with organized crime or any other illicit activity, and or making the completed analysis available to the investigate authorities( Financial Action Task Force (FATF), 2006) In the European Union, the money laundering has been accepted an evident influence on the rise of organized crime in general and drug trafficking in particular, whereas there is more and more awareness that combating money laundering is one of the most effective means of opposing this form of criminal activity which constitutes a particular threat to Member States societies.

Whereas money laundering must be combated mainly by penal means and within the framework of international cooperation among judicial and law enforcement authorities as has been undertaken in the field of drugs by the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic, Substances adopted on December 1988 in Vienna and more generally in relation to all criminal activities by the Council of Europe Convention on laundering, tracing, seizure and confiscation of proceeds of crime, opened for signature on 8 November 1990 in Strasburg. The recommendation of the Council of Europe 27 June 1980 and to the declaration of principles adopted in December 1988 in Basle by the banking supervisory authorities of the Group of Ten

In the European Union Countries, the money laundering means the following conduct when committed intentionally: the conversion or transfer of property, knowing that such property is derived from criminal activity or from an act of participation in such activity, for the purpose of concealing or disguising the illicit origin of the property or of assisting any

person who is involved in the commission of such activity to evade the legal consequences of his action.

The concealment or disguise of the true nature, source, location, disposition, movement, rights with respect to or ownership of property, knowing that such property is derived from criminal activity or from an act of participation in such activity.

The acquisition, possession or use of property, knowing at the time of receipt that such property was derived from criminal activity or from act of participation in such activity.

In this Directive property defined as assets of every kind, whether corporeal, movable or immovable, tangible or intangible and legal documents or instruments evidencing title or interest in such assets.

Member States shall ensure that credit and financial institution require identification of their customers by means of supporting evidence when entering into business relations, particularly when opening a deposit account or savings accounts or when offering safe custody facilities.

The identification requirement shall also apply for transaction with customers other than those referred to in paragraph 1, involving a sum amounting ECU 15000, whether transaction is carried out single operation or in several operations which seem to be linked. Where the sum is not known at the time when the transaction is undertaken, the institution concerned shall proceed with identification as soon as it is appraised of the document.

Switzerland is an example of special case. Switzerland's banking institution could be recognized as facilitators of the movement and the repositories of capital from other countries. In 1998, Switzerland broadened the reach of its Code of Conduct on due diligence and the money laundering policy to include not only banks but the entire financial sector as well. This act had been put into effect by 1998 ( Boyrie et al 2005)

Transfer pricing in the Middle East region has special importance in terms of money laundering through Multi-National Companies (MNC)s. In this region, the large numbers of Multi-National companies based on European and the USA and Canada operate. The Middle East region is at the initial stage of the transfer pricing lifecycle where transfer pricing and international tax regimes were being developed (Axelsen and Rossel, 2012: 4). Favourable taxing principles in the Middle East Region offer opportunity for multi-national companies. High domestic withholding tax rates compared to domestic rates of corporate taxation and lack of a treaty network within the Middle East region attract high levels of taxation at source and scrutiny under audit. If an MNC's operating companies are set up as full risk and therefore subject to various outbound transactions within the country of operation, all such transactions are subject to relatively high domestic withholding tax rates which in many instances will not be eligible for treaty relief. Tax Law allows the arm's length principle as stated by Article 9 of the OECD Model Tax Convention on Income and on Capital and thus general acceptance of many of their standard and global transfer pricing policies. The reality is that tax authority acceptance of the arm's length principle throughout the region is mixed and as a general rule form over substance tends to prevail. As such presence of a legal contract and documentation supporting the charges and illustrating that the legal contract and policy has been administered as intended are often more important than trying to explain the substance of a transactions. It can be challenging to explain that a limited risk distributor should earn an arm's length operating margin and cost of goods sold is valued accordingly in an effort to target such a margin as opposed to being able to tie the transaction back to a schedule of actual costs and profits earned by the seller of the goods. The legal contract alone, if interpreted by a tax authority as " reasonable and " arm's length agreement may suffice.

#### Money Laundering in Turkish Economy and Transfer Pricing

Turkey became the part of Vienna Convention on money laundering illegal drug traffic and Psychotrop at 1995. Although, the first initiatives started by membership to FATF

at 1991. However, Turkey did not sign the Strasbourg Convention on money laundering on criminal gains. These were just after first experience of Turkish economy on fraud in export by untrue export of furniture at 19175 ( Hurriyet , 2012 ).

2007, the transfer pricing rules have been put into effect in Turkish economy by 2007.

The Article 13 of the Corporate Income Tax Law (CITL No.5520) under the title of “Disguised Profit Distribution through Transfer Pricing” states the arm’s length principles. The regulations under Article 13 follow the arm’s length principle, established by the Organisation for Economic Cooperation and Development Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations (OECD Guidelines, 2013) and are applicable to all financial, economic and commercial transactions and employment relations between related parties. As follows: the term corporation covers: capital stock companies, cooperatives; public economic enterprises; economic enterprises of associations or foundations and joint ventures.

Related party definition of the Turkish Transfer Pricing regulations is very broad and it included direct or indirect involvement in the management or control in addition to the existence of shareholder- ownership relationship. In addition to transactions with foreign group companies, it also includes transactions with entities that are based in tax havens or in jurisdictions that are considered to be harmful tax regimes by the Turkish government. Within the framework, the concept of related party is broadly defined under Article 13 of CTIL No.5520

The concepts of ‘related party’ covers shareholders of the corporation, legal entities or individuals related to the corporation or its shareholders; legal entities or individuals related to the corporation or its shareholders. Legal entities or individuals which control the corporation directly in terms of management, supervision or capita; legal entities or individuals which are controlled by the corporation directly or indirectly in terms of management, supervision or capital.

The Transfer Pricing rules define certain methods for the determination of arm’s length transfer prices. The methods adopted are comprehensively explained by the OECD Guidelines are as follows: Comparable uncontrolled price method; Cost plus method, resale price method. In the case where these methods cannot be applied, the company may apply other methods: profit split method and transactional net margin method.

In the comparable uncontrolled price methods, if the internal comparable are sufficient to reach an arm’s length price, there is no need to find an external comparable. If there is no internal comparable, external comparable should be used after making a comparability analysis and the necessary adjustments.

In addition to the specific transfer pricing regulations, additional requirements or rule covering transfer pricing contained in other legislation include: Turkish tax procedural law article with regard to the determination of the market value of goods and Turkish value added tax law article stating if the tax base for goods and services is unknown, the market prices based on the nature of the transactions will be the tax base.

In recent years, the Turkish Ministry of Finance significantly increased its number of transfer pricing audits against companies with a particular emphasis on the pharmaceutical, automotive and fast moving consumer goods sector. In the course of these audits, the Ministry of Finance has focused on the following transfer pricing issues

*Pricing of raw materials traded amongst related parties, with the government relying on industrial benchmarking studies that omit relevant risk and functions.*

*Continuous losses in previous years by companies that operate primarily through related companies abroad.*

*Management fees and indirect cost allocation.*

*Yearend adjustments.*

would be considered some methods of money laundering (Price Water House Coopers Consulting, 2013)

WTO groups the measures against subsidies, all anti-dumping provisions to protect local producers as well as all protection and surveillance measures under the heading of “trade policy defence tools”. In this respect, Turkey started surveillance on imports starting from generally regardless of country of origin. However, considering the fact that domestic producers are faced with heightened competitive pressure from imports originating especially from China, the majority of the imported products subject to surveillance can be through of China origin.

Measures against subsidies, all anti-dumping provisions to protect local producer, as well as all protection and surveillance measures under the heading of “trade policy defence tools were grouped by World Trade Organization. Turkey only started surveillance on imports at 2004.

Decree on import surveillance issued by May 29, 2004 states the methods and principles of closely monitoring the developments in the imports of products in consideration (Decree with number, 2004). The decree on surveillance assigns a committee to examine import practice and its possible threats. Especially import from China is very important threat to Turkish economy. After surveillance is imposed to a particular product, a documentation system is put into practice. The surveillance form includes the number, place and date of importation, the nature, origin and commercial definition of the product, the name of the exporting/importing firm, quantity, value and price of the transaction. In order to fulfil the requirements to get this form, importers should provide some standard documents before the Ministry of Economy. In their studies, Aktas and Aldan (2013) analysed the mismatch in international trade of Turkey through import surveillance. The main argument on their studies was the surveillance practice results in higher than real CIF values. According to their studies, the import surveillance has worsening impact on total import bill. One of the important reasons was cheap imports are recorded at higher prices than their actual worth. The other one was the fact that importers would like to avoid documentation work, importer pay different amount other than the amount stated in the invoice. This in turn would add a positive amount to net errors and omissions. Indeed, net errors and omissions, which fluctuated around zero in the period of 1992-2002, are positive straight since 2004, indicating systematic disturbance of which import surveillance practice might be one of the potential causes (Aktas and Aldan, 2013:8). Aktas and Aldan found out significant effect of import surveillance on import prices, that is, over invoicing of imports. The effect is clearer in the trade data with China. They suggest that, Turkish import figures could be inflated about 2 to 3 billion dollars as of 2011 and rising since total imports are increasing due to economic growth and the number of commodities under surveillance system.

In Turkey, Aktas and Aldan (2013) studied the net errors and omission in the analysis of the balance of payments in Turkey. They explained the data of 1995. In 1995, the Central Bank of Turkey explained the other income in balance of payments. 3.5 billion USD is construction and freight income, the other remaining is 0.5 billion TL income held in consulates, commission revenue; 2.4 billion USD was declared as income by the people who are resident in Turkey and exchanged their foreign exchange to TL. However, they assumed that 1.5 million USD is the amount that cannot be announced and basically the money transferred Turkey to launder. The German authorities also announced more than 1 billion Deutsche Mark was transferred as cash by the individual at 1995. Similarly, at 1998, the total amount of money transferred to Turkey by illegal methods was considered as 100 trillion USD. The source of income was not inquired in those years where the need for capital was so high in Turkey. The announcement made by the Central Bank of Turkey also confirms the 2.4 billion USD dollar is the money which the source is unknown and cannot be explained. The former President of the Central Bank estimated the amount of money transferred for

laundering purposes as 1.5 billion USD \$ or more at 1996.

Similarly this amount was

estimated as 100 trillion TL (375 billion USD \$) at 1998

- *foreign exchange of labour working abroad*

- *tourism income*

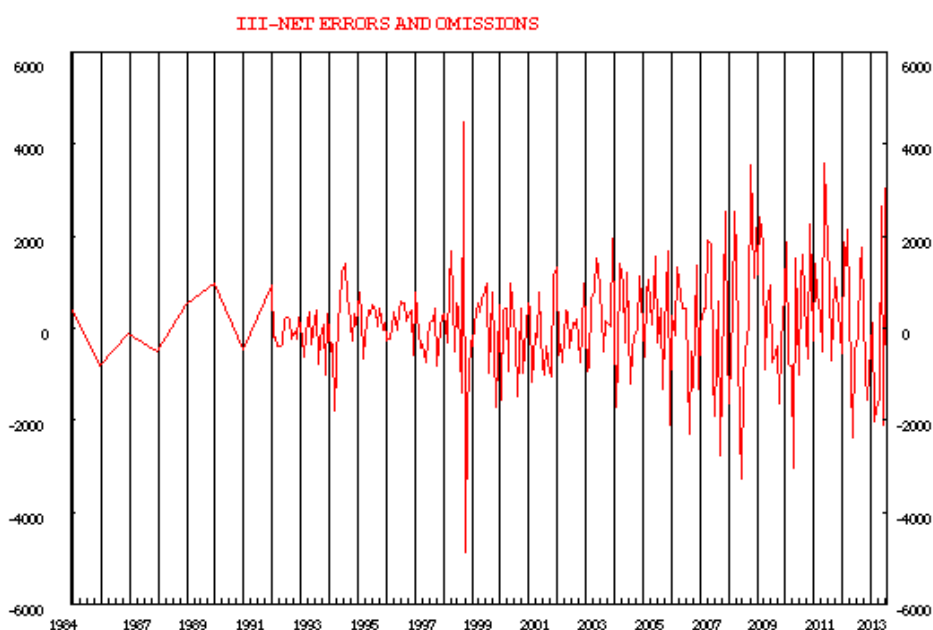
- *income obtained from construction business abroad.*

- *freight income*

People who are residence in foreign countries were allowed to have a Deutsche Mark currency deposit account with the limit of DM 50.000. as long as they invest to this account , they were allowed to buy automobile free of charges. Total value of the accounts which are open to get benefit of the decree with the number of 1996 8486 was 1.772.524.404 DM at 1998.

Here, in this paper, the net error and omission information have been analysed. Larger time period had been taken into consideration in the graph below (Graph 1), the data for net error and omissions from 1984 to 2013 have been represented. Accordingly, due to liberalisation policies starting by 1980's, the net error and omission part of the balance of payments of Turkey has been raising tremendously. Early years of liberalisation, the net error and omission were less than the recent years.

*Graph 1: Net Errors and Omission in Balance of Payments in Turkey*



*Source: The Central Bank of Republic of Turkey <http://evds.tcmb.gov.tr/yeni/cbt-uk.html>*

### **Concluding Remarks**

Combating with money laundering is important issue in all economies. Due to globalization, international mobility of commodity and capital increased, the raising mobility also raised the number of transactions and documentation. Sometimes some of the companies may overprice their invoices. Turkey has been considered as one of the area money laundering is possible. Although, all related regulations and legislation have been made, still certain amount of money laundering could be forecasted under the net errors and omission of balance of payments of Turkey. The analysis made in this paper showed that the net error and omission of the balance of payment in Turkey has been increasing since 1984. The large part of these bias have been considered due to the over-invoicing. This is one of the money laundering through international trade.

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# FINANCIAL AND INVESTMENT ASPECTS OF STABILIZATION OF THE GEORGIAN ECONOMY IN THE CRISIS PERIOD

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## Abstract

The global economic crisis originated from the financial crisis when banks and financial institutions took the unreasonable high risks and mass bonuses in order to receive high profits. The author of these words is the President of the USA Barak Obama. Like worldwide, in Georgia the global financial crisis most of all effected the financial sector and became the basis for significant changes. The analysis of the few-year struggle against the results of the financial crisis shows several fundamental deficiencies of the existing international regulation framework and risk management practice and can impact potentially on any jurisdiction and bank system. Basel III document published by the Basel Committee on December 16, 2010 is just designed to eradicate such deficiencies. The financial crisis has also intensified the irregular reduction in leverage and existence of close relations between the institutes. The dynamics of procyclicality and system risks together with the particular risks typical for the banks shows the necessity of consideration of the aggregated risks of banking and financial sector in whole. The disagreed approach to the risks became the reason of the global crisis. The Group of Twenty will start to operate the new framework in 2013 and it will be introduced step by step until 2019. In spite of the transitional provisions, the introduction of Basel III is a very difficult task. According to McKinsey & Co. publication, Basel III will have significant impact on the European banking sector.

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**Keywords:** Investment, banking, crisis, capital, growth

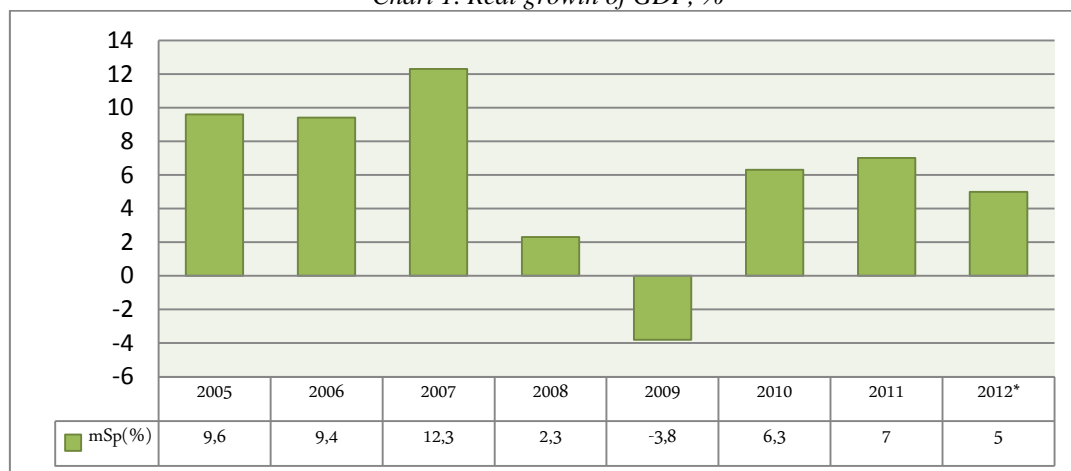
## Introduction

The global economic crisis could have resulted in the development of the economy and the living standards of the population which in its turn leads to social level in the society. If we add the internal and external political instability, it is very difficult to judge a country's investment environment and the improvement of the roads, but it is necessary in the field of traffic analysis and some possible directions for reference. The government is actively trying to convince the international community of its own, and in particular the stability of the economy and its attractiveness as an investment, but significant population shifts in the direction of the times - so far have not been forthcoming. Investments have been very much in fact. Almost all the politicians on the spot or inappropriate users of this term (especially during election campaigns), realizing that you cannot survive without investment Georgian production, could increase employment, cannot be achieved through socio-economic and political stability. At the same time, foreign investors are focused primarily on the investment climate which is determined by an independent expertise of the investment efficiency.

Following the worldwide tendencies, in 2008, the development of the Georgian economy consisted of two different phases. In the first half of 2008, the high rates of the foreign direct investments (FDI) flows and growth of financial activity still maintained, but in the second half of 2008, the real gross domestic product (GDP) decreased by 3.2% compared

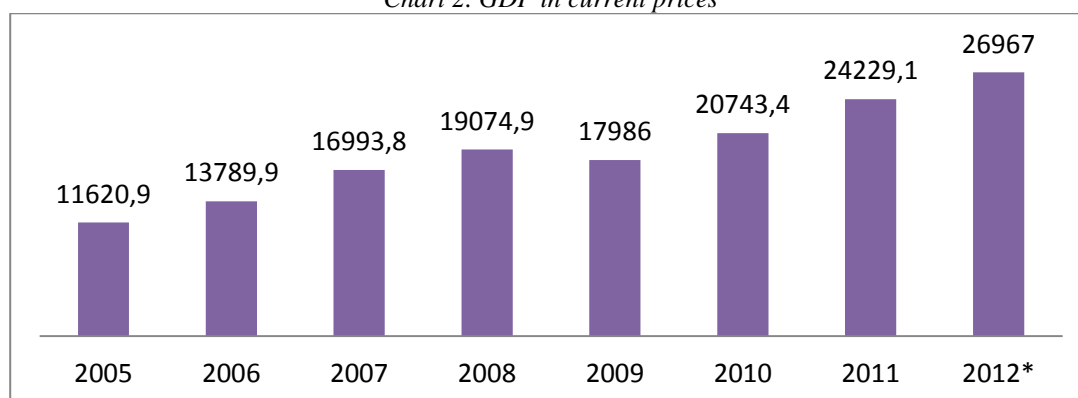
with the same period of the past year while in the first half of the year the actual growth was 8.7%. Such sharp drop was mainly caused by the paralysis of the economy resulted from the hostilities which took place in August of 2008, whereby in the third and fourth quarters of the year the real decline in the economy was 3.9 % and 2.5%. This situation was also aggravated by the problems of searching resources from abroad for commercial banks due to the exacerbation of the global financial crisis, the increase in the interest rates and slowdown of the credit activity. Finally, in 2008, the real growth of the gross domestic product was 2.3%.

Chart 1. Real growth of GDP, %



In 2008, the negative GDP was not fixed though, this index sharply declined compared with the previous years. The maintenance of the positive growth pace was mainly conditioned by the development of the sectors related to the budgetary financing. From the analysis of the structure of GDP expenditure, we can see that in 2008 the growth of GDP was due to the final consumption.

Chart 2. GDP in current prices



The total consumption expenditure made up almost 100% in the GDP and compared with the previous year the total consumption growth was equal to 20.2 %. The greater part in the total consumption went to the households where the consumption increased by 16%. More than doubled growth was fixed in the general government expenditure which increased by 32% compared with the same indicator of 2007. As it has been mentioned above, in the second half of 2008, the foreign direct investments sharply declined, thus affecting on the component of the gross capital formation.

In 2008, this component amounted to 5148.8 mln. GEL or by 5.5% less than in the previous year. As a result, the share of the gross capital formation in one year decreased from 32% to 27%. In 2008, the trade gap significantly increased. The decline in the trade turnover was observed from the second half of the year but finally, the annual trade gap increased by about 1 bln. GEL (by 21%). The export growth was minimal – it grew by 166 million GEL



only and amounted to 5469.1 mln GEL. The import growth was more impressive: in spite of the decrease by 212 mln GEL in the second half of the year, the annual growth was 1160 mln GEL and amounted to about 11 bln GEL. Hence, as a result of the particular great trade gap in the first half-year, its share in the GDP compared with the previous year did increase from 28.2 % to 29.0% [3, 11-12].

*Table 1. Current prices (in mln GEL)*

	2005	2006	2007	2008	2009	2010	2011'
Gross domestic product in market prices	11,621	13,790	16,994	19,075	17,986	20,743	24,229
Final consumption expenditure	9,794	9,794	12,972	15,732	19,596	19,075	19,898
Households	7,720	7,720	10,804	11,953	14,582	14,600	15,418
General government	2,014	2,014	2,116	3,718	4,936	4,399	4,371
SHMAKO	61	61	52	61	77	75	109
(+) Gross capital formation	3,892	3,892	4,255	5,448	4,952	2,343	4,478
Fixed capital formation	3,261	3,261	3,524	4,370	4,099	2,755	4,009
Stock change	630	630	731	1,077	853	-412	469
(+) Goods and service export	3,922	3,922	4,532	5,303	5,459	5,349	7,250
Goods export	2,666	2,666	2,956	3,479	3,587	3,163	4,390
Service export	1,256	1,256	1,576	1,824	1,873	2,185	2,860
(-) Goods and service import	5,993	5,993	7,863	9,848	11,140	8,801	10,945
(=) Gross domestic product in market prices	11,621	13,790	16,994	19,076	17,986	20,743	<b>24,229</b>

2009 was particularly difficult for the Georgian economy. The real decline of the national gross domestic product was 3.8%. During 2009, the Georgian economy was in the post-crisis state. The impact of the hostilities and the global financial crisis that took place in the second half of 2008 manifested itself especially in the first half of 2009. This grave economic background was aggravated with the political tension. All this caused the unprecedented real decline of the Georgian economy in the second quarter of the year – by 10.1%. Though in the second half of 2009 the process of decline in the GDP stopped (that mainly is explained by the economic drop in the relevant quarters of the previous year or the “basis effect”) and in the fourth quarter for the first time after the year-and-a-half period a small positive growth trend (0.4%) was observed in the economy, the trend of the fixed negative rate of the annual growth was inevitable. The decline in the nominal GDP was even greater – due to the negative deflator it made up 5.8%.

From the GDP analysis by sectors we can see that the most negative impact on the national economy had the trade sector (-2.5 percentage points). The significant decline was fixed in the processing industries, construction and communal, social and personal service sectors. The positive growth rates of added value were fixed only in some sectors where the highest went to the health sector (0.33 percentage points). Noteworthy is that the positive growth rates were fixed mainly in the budget financed sectors.

The analysis of the almost 6% decline in the nominal GDP of 2009 from the aspect of demand enables to make several significant conclusions. First of all, noteworthy is that in the GDP reference equation, in spite of the negative import, the positive Georgian GDP and

import correlation in 2003-2009 was 0.96%. Such dependence was due to the fact that in 2003-2008 one of the driving factors of the national economy, the foreign direct investments, conditioned the growth of import from 4 bln GEL to 11 bln GEL. The import growth was reflected both on the final consumption growth and the investment expenditure. Therefore, during the economic development period, the negative effect of the import growth was balanced by the growth of the goods and service intended for the final consumption, investment expenditure and re-export. Subject to the foregoing, the sharp decline of the foreign investment flows during 2009 played the deciding role in the stagnation of the final consumption rates and decline in the gross capital formation (investments). According to the annual data, the final consumption decreased by 1.9%, the export declined by 2.9% and the value of the investments and import decreased by 56 and 21 % accordingly.

Therefore, based on the analysis of the demand, we can conclude that the decline in the national nominal GDP considerably resulted from the decline in the consumption, namely, general government, final consumption and investments. The latter mainly caused the decrease in the capital inflow resulted in the import decrease. The certain share of decrease in the major GDP components was expressed in the import decrease that mitigated the reduction in the GDP [4,17-19].

In 2011 was fixed the considerable growth of the Georgian economy. The annual index of growth of the real gross domestic product was 7 %. The economic growth attained to the highest rate in the second half of the year. In the third and fourth quarters the real GDP increased by 7.5 and 8.8% accordingly. Excluding the seasonal factor effecting the GDP we can see that the economy was growing in each next quarter compared with the previous one. Therefore, according to the correlated data, the economy was growing much more intensively in the first and last quarters of the year (by 2,4-3.0%) than in the second and third quarters (by 1.3-1.8%). Based on the GDP dynamic analysis by sectors, the major share in the economic growth of 2011 was contributed by the processing industries and trade sectors. In addition, noteworthy is the considerable growth of the sector of financial activity and its high contribution to the GDP growth in 2011 (0.6%). The agrarian sector, after some years of decline increased by 5.5 % in 2011. The following sectors showed the high growth rate and accordingly, made the considerable positive contribution in the economic growth: construction, state government and transport. The share of added value growth in other sectors was comparatively small in the total growth. The annual decline was fixed only in the mining industry due to the decrease in the demand for the minerals in the international markets. Noteworthy is that the growth of national economy was caused by the growth of the private sector activity, like in 2010. In 2012 the prolongation of this trend of growth and maintenance of its dynamics by sectors is anticipated.

In 2011, the nominal GDP increased by 16.8 % compared with the previous year while GDP deflator increased by 9.2%. The final consumption category increased nominally by 12.6%. According to the 2011 data, the gross capital formation increased by about 39%, and the goods and service export – by 22%. The import increased by 22% and made up 55% in the nominal GDP that is a rather high index. The real final consumption produced a result of the exclusion of the consumer price increase, increased by 3.7% during the year. Compared with the year 2010, the real consumption growth rate in the beginning of the year was low (up to 1 %) and in the second half it considerably accelerated and made up 7%. The general government expenditure in 2011 was lower than the indices of all quarters of 2010, except for the Q4. In total, in 2011 (as a result of the expenditure in the last quarter of the year) the state government bodies nominally spent by 1.4% more and in the real terms by 6.6% less than in the previous year. Such reduction in the expenditure is explained by the policy aimed at the fiscal consolidation.

In general, the growth of the final consumption in 2011 is the result of the increase in its largest part - the consumption expenditure of households. A rather high (38.6%) growth of

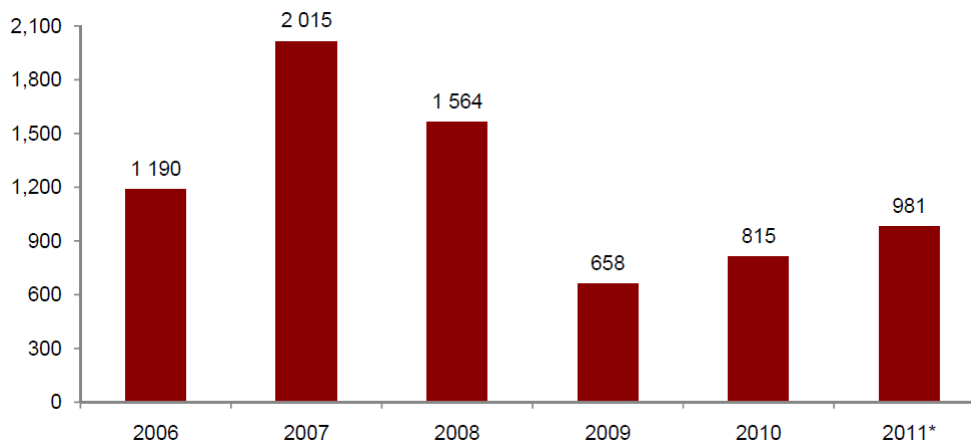
the gross capital formation was caused by the annual 33% growth of the fixed capital formation. At the same time, compared with 2010 the rate of increase in the stock and supplies doubled and this index in terms of the current prices became equal to the similar value of the year 2007. In 2011, the gross capital formation exceeded the same value of 2007 by 14%. Taking into consideration the factor of rise of prices, it is obvious that the capital growth fixed in the past year in the real terms does not exceed the pre-crisis rate, though when assessing the importance of this fact noteworthy is that in 2007 the economic boom attained to its peak. It should be mentioned that during the total post-crisis period, the real economic growth was mainly due to the export and capital formation growth. As it has been mentioned above, during the past year the real total final consumption, unlike the previous years, considerably increased as well. In general, the contribution to the real economic growth in 2011 was made by all three discussed categories of use of the GDP where the contribution of gross capital formation and goods and service export is again higher.

Noteworthy is that in 2011, the growth of the gross national income (GNI) of the country was higher (17%) than as a result of the total consumption (13%). As a result, the national savings increased and this index exceeded the national income by 13% [6, 17-20].

### Foreign direct investments

The foreign investments implemented in Georgia in the first half of 2008 were characterized with the growth tendency and increased by 35.5 compared with the similar index of the previous year and amounted to 942 mln US dollars. Unfortunately, such rate of the growth did not continue and, on the contrary, in the second half of 2008 the investments sharply decreased compared with the index of 2007. This was caused by the risk situation resulted from the hostilities and, of course, the investors wanted to channel their funds to the more politically stable countries. This was a great shock for the Georgian budget but the state was more aggravated by the world crisis beyond the control of Georgia. The global financial crisis has swallowed up the wealth of many billionaires and millionaires worldwide hence resulting in the decline in the investing. The direct investments are shown in Chart below:

*Chart 3. Foreign direct investments in Georgia in 2006-2011\**



As we can see from the Chart above, in 2006-2007, the foreign direct investments were growing due to the stabilization of the situation disturbed after 2003 and the increased confidence and investment interest in Georgia. Unfortunately, this growth stopped in 2008. In 2009-2010, the investment growth was observed though not at the level of 2007.

Based on these data, we can find out that the crisis and the war had a rather big negative effect on Georgia. One can say that the war was the main reason of the loss of investor's interest towards Georgia but the main factor was that the investors themselves were hit by the crisis and the world economy in general only now begins to transit gradually

to the growth regime. My point is that the world still experiences different financial fluctuations and some analysts predict that in spite of overcoming the crisis, the world can immerse in a deeper crisis again [11].

To whom, in what form, for what term and under what conditions shall the governmental investments be “delivered”? On mature reflection, the best implementation of the above mentioned three properties of investments will be only in the banking sphere, i.e. we have defined the initial point of investments – the commercial banks, that is the banks will accumulate the financial resources as well as the tendered investment projects and provide their further priority placement. The priorities will be determined by the specially developed methods where beside the main priority of the maximum efficiency, other priorities will be taken into account: commodity-forming and resource-saving character, dependence on the imported raw material, regional diversification, social aspect (employment size, employment of IDPs and general employment, etc).

At the same time, we shall keep in mind that the funds are state-owned and are subject to the refunding; therefore, we shall take into account the mechanism of denationalization (privatization) and the interests of all players of the investment process: the state, commercial banks, entrepreneurs and employers! Just in this field the safeguarding role and function of the insurance system shall reveal itself with the best responsibility and strength.

During the crisis period, the particular value is attached to the monetary policy of the cash aggregate control, namely, the unreasonably high remuneration. At the same time, the anti-crisis activities require the active support from the side of population. Where can we seek a possible solution? Our proposals are as follows:

1. To determine from the very first day the reasonable rated wages at newly operated enterprises (even at the subsistence level or at best, much higher than the value of a consumer's basket);
2. To pay only the partial (e.g. 50-60%) wage in cash for a certain period (see the explanation below);
3. To remunerate the remained part of the wage in kind of the registered securities of the enterprise which will be placed in the special pension and investments funds on the registered base.

The essence of these activities is very simple: all employees shall be given the right and obligation to concern themselves with their income. The state pensions paid from the tax revenues shall be replaced with the individual pension deposits further invested in the securities. The labor force shall have the free option of transition to the new system while young employees will be automatically included in this system once they begin to work. As a result, we will considerably reduce the social expenses of the state, on the one hand, and on the other hand, the government will not be obliged to set and pay the leveled and scanty pensions.

It will be desirable to cover the majority of population with this system, except for those people who will simply have no time to accrue the sum for security of their worthy old age. The participants of the so called cumulative (private) system will not pay any profit-sharing fee and the pension funds will be the ownership of future pensioners. At the same time, depositors will be free to place those funds with this or that company or to invest them in the open security market, but with some restrictions (regarding the industry or region). The employees will transfer 10-20% of the wage to the own authorized insurance (pension-investment) account and will receive income from the accrued deposit and the right to dispose it as they will.

Upon attainment to the retirement age, any employee will be entitled to withdraw the total sum or get it by portions, mainly on the monthly basis. The very important factor will be that in case of accumulation of the sufficient funds in the pension deposit, an employee will

have the right to retire before the attainment to the age of 60-65 years and to continue the work after the attainment of the retirement age.

Whereas the investment of pension funds will be in the hands of private companies, it will be necessary to establish a special supervision agency thereof. This activity also requires the wide advertising and informational campaign in the mass media (especially via television) for explanation and promotion of priorities of the private pension and investment and insurance systems and certain companies.

### **Conclusion:**

Consequently, we will achieve the following objectives:

- 1) The cash aggregate will be considerably, reliably and reasonably limited, thus making the positive effect on the inflation process;
- 2) The available additional resources will be used as a new investment source;
- 3) This activity will generate a powerful resource impulse for the effective development of the national financial market as well as all conditions to urge the population to make their savings in the securities in the open free market;
- 4) On the assumption of the continuity and cyclicity of the flow of funds, the national banking and insurance spheres will get the strong impetus to secure the process of economic efficiency and repayment of state-owned funds;
- 5) The motivation of employees for a higher quality of their work in the own companies will be improved as their future wellbeing and additional income as investors will depend on the output of the enterprise;
- 6) The proportional saving of the state social expenses will be possible;
- 7) The reliable system of social security of population based on the sustainable domestic source will be created.

In case of even gradual success of those activities, the public confidence in the government will arise, thus creating the stable basis for the support of future reforms to be carried by the government. The proposed mechanism of stimulation of the investment environment of the national economy and social guarantees is based on the practices of the countries having the considerable experience in this sphere: Germany, Chile, Argentina, Poland and others.

For example, let us refer to the Chile's experience. In the first year of the reform, the sums accumulated on the pension accounts of Chilean citizens amounted to about 300 mln US dollars and thereafter were increasing constantly: by 2001, this sum exceeded 35 bln US dollars. Consequently, there was formed the industry of management of those funds that, in turn, changed the situation in the stock market. In 1981, its capitalization amounted to 2.67 bln US dollars and by 1991 – attained to 20 bln US dollars. Parallel, by the end of the first year of the reform the amount of trade in bonds increased tenfold and in 1987 – decupled again as well as in 1998. Noteworthy is that at that time more than a half of the demand for such securities was provided by the pension funds. The appearance of the “pension” money in the stock market improved its (market) liquidity and stability; its “volatility” was significantly reduced as compared with other countries of Latin America. The appearance of new players in the stock market became the motivating factor of the demand for securities from the management companies. If in 1985 a medium management company held the stocks of two companies only, in 2000, this index was 107. In addition, the activity of pension funds representing minoritarian but well organized investors has had the beneficial effect on the corporate management. The management companies in Chile are obliged to vote for independent directors at the shareholders meetings and to inform the government about those managerial decisions which violate the rights of minoritarians. In turn, the Chilean enterprises which are seeking to get the pension resources in kind of investments make their business maximum transparent [1, 46-48].

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# MINERAL OR ORGANIC FERTILIZATION: FINANCIAL ASPECTS

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## Abstract

Farm manure is not disposed in a proper way in Croatia and often farmers consider it as undesirable by-product. Furthermore, stock manure is quite inexpensive fertilizer, even when farmers are forced to buy it to increase soil fertility. The aim of paper was to research costs of mineral and organo-mineral fertilization including applied farm machinery costs and fertilization costs taking into account level of soil fertility and nutrient status. According to nutrient status, fertilizer recommendations were calculated for soil of low fertility, medium fertile and fertile soils. Four fertilization methods were economically analyzed: mineral fertilization (complex fertilizers), mineral fertilization (single fertilizers), organic plus mineral (complex) and organic plus mineral (single). Fertilization costs are calculated in three year production model – wheat, maize and sunflower production. The highest costs are related to combined organic and mineral fertilization 2.729,05 (single mineral fertilizers) and 2.548,60 €/ha (complex fertilizers) for low fertility soils. Higher application of organic fertilization can solve a few problem of agriculture in Croatia: solving manure disposal problem considering environmental EU requirements, increasing soil fertility and crops' yield what is positively related to farm profitability and decreased costs impacts directly on saving money for farmers.

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**Keywords:** Organic fertilization, mineral fertilization, economic effect, fertilization costs, work effect

## Introduction

Over the past decades, uncontrolled population growth and rapid urbanization and industrialization resulted in environmental problems (Tinmaz and Demir, 2006). Current large-scale livestock production, epizootic, diseases and increasing globalization created the need for biosecurity in order to minimize the risk of disease transmission to the food chain (Albihn and Vinneras, 2007).

Farmers in Croatia have problems with manure disposal considering environmental requirements from EU and CAP. Mostly, farm manure is not disposed in a proper way and often farmers consider it as undesirable by-product. There are many researchers who proved positive impact of organic fertilization on crop yield and, more important, on soil fertility and microbial activity in soil.

In some cases authors found similar impact of organic and chemical fertilizers on yield (Chan et al., 2008; Reeve and Drost, 2012; Ghorbani et al., 2008), but we found that the lower price of the organic fertilizers produced on farm on economic farm result should be considered. On the other hand, Lee et al. (2006), Csizinszky (2000), Warman (2000), Delate (2008) and Sotomayor-Ramirez et al. (2010) found that growth and yield due to organic fertilization even surpasses conventional production of vegetables. Stock manure has enhanced impact on mineral fertilization reduction because of its high fertilization and environmental value (Lončarić et al., 2009).

Furthermore, stock manure is quite inexpensive fertilizer, even when farmers are forced to buy it to increase soil fertility. On-farm produced stock manure applied on fields can solve some problems for Croatian farmers: solving manure disposal problem considering environmental EU requirements, increasing soil fertility and crops' yield are positively related to farm profitability, but also stock manure can be replaced for a certain amount of mineral fertilizers.

The aim of paper was to research costs of mineral and organic plus mineral fertilization including applied farm machinery costs and fertilization costs taking into account level of soil fertility and nutrient status.

## Material and Methods

The starting point of fertilization cost calculation was nutrient status of soil (Table 1).

*Table 1. Soil fertility according to chemical properties and nutrient status*

Soil	pH <sub>H2O</sub>	pH <sub>KCl</sub>	humus	AL-P <sub>2</sub> O <sub>5</sub>	AL-K <sub>2</sub> O
Poor	5,70	4,98	1,94	8,15 (B) Poor	12,57 (B) Poor
Medium fertile	5,97	5,17	2,87	13,75 (C) Well supplied	20,11 (C) Well supplied
Fertile	6,41	5,35	3,33	23,11 (D) High supplied	30,77 (D) High supplied

According to nutrient status, fertilizer recommendations were calculated for soil of low fertility, medium fertile and fertile soils. Fertilization recommendations were done according to soil pH, humus content and available phosphorus and potassium for three crops: wheat, maize and sunflower – three year production system.

Different fertilization methods are considered in paper:

- Mineral fertilization only, complex fertilizers (N:P:K 5:15:30, urea, CAN) - MC
- Mineral fertilizer only, phosphorus or potassium single fertilizers (MAP 12:52:0, KCl (62% K<sub>2</sub>O), Urea, CAN) - MS
- Organic fertilization (cattle manure) in combination with mineral fertilization, complex fertilizers - OMC
- Organic fertilization (cattle manure) in combination with mineral fertilization, single fertilizers – OMS

Determining the costs of the different methods of fertilization is based on the work study which identifies elements for the design of work effects (norms). Norm presents effect achieved by skilled worker with certain machines with medium work intensity and dedication at work during a day shift. Knowing effects has multiple applications. It is used for planning the required number of people and machines to perform specific tasks in agricultural engineering within agro-technical deadlines. Furthermore, norm is used for planning technological production map for certain crops that contains a list of activities, agro-technical requirements for raw materials, general time in which the work would be done, the composition of aggregate for the driving machine, connected tools and required number of people to perform the work. Hour consumption of human labor and machinery per area unit can be calculated via norm. After determining the expenditure of machines in hours per hectare, it is calculated cost of labor and aggregate in € per hour. It is structured of tractor work, connected tools and earning of worker in € per hour. The price of tractor work is consisted of variable and fixed costs. Group of variable costs depends on time used by tractor within the year, and these are the costs of fuel, the cost of oil and grease, amortization costs and costs of tractor maintenance. The group of fixed costs is consisted of accommodation costs, insurance, interest payments and overhead costs related to the machine management.

Connected tools are aggregated with suitable driving machine (tractor). For connected tools also are calculated amortization costs, insurance, interest payments and tool accommodation costs. The total price of aggregate work hour is consisted of tractor's costs, related machinery and worker's wage. It is multiplied by the number of hours (7-8) and gets



the financial value of the total cost of aggregate in a one shift. This value is divided with the machine effect or norm. This is the final price of machinery aggregate in €ha<sup>-1</sup>.

Costs and work effects of mechanization activities connected to fertilizer apply is shown in table 2 (mineral fertilization) and 3 (organic plus mineral fertilization). According to those results, organic fertilization is much more complex, expensive and time consuming operation compared to mineral fertilization – 227,82 and 12,78 €ha, respectively.

Table 2. Mineral fertilization working activities, costs and effects

Operation	Effect (norm) ha	Working hour per ha		Costs €/ha
		Machinery	People	
Supply and transport of mineral fertilizers	60	0,12	0,24	2,75
Loading of mineral fertilizers 300 kg/ha	90	0,08	0,08	1,50
Spreading	18,4	0,38	0,76	8,53
Total		0,58	1,08	12,78

Table 3. Organic fertilization working activities, costs and effects

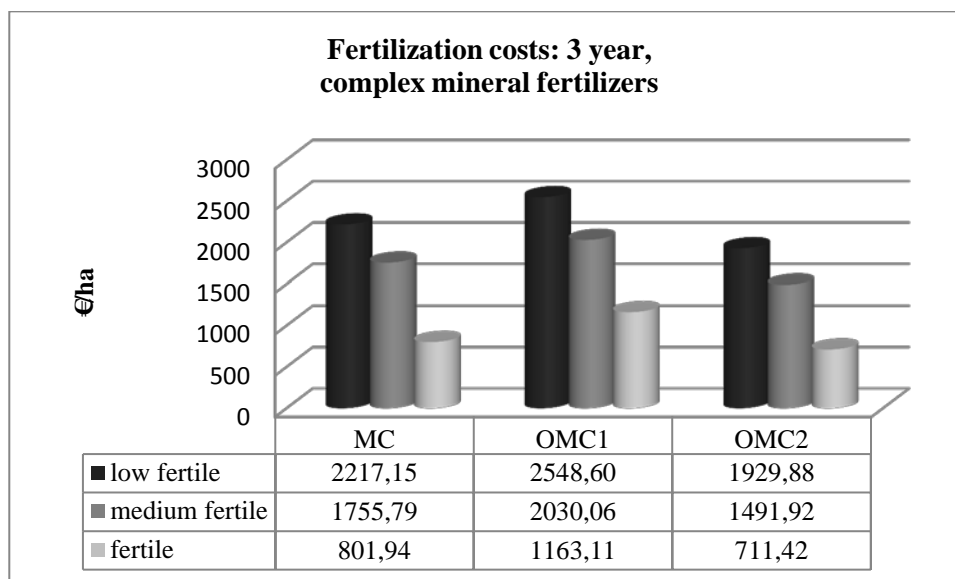
Operation	Effect (norm) ha	Working hour per ha		Costs €/ha
		Machinery	People	
Loading of manure with tractor loader	23	3	3	37,25
Spreading of manure - 30 t/ha	1	7	7	190,57
Total		10	10	227,82

## I.

Agricultural production in the Republic of Croatia, in principle, was based on the use of stock manure until the 1970s with low mechanization levels. The work has been performed manually. The process of equipping small private farms with tractors generally started around 1965, and more significant about 10 years later. Since then, the application of fertilizers begins. At the same time in most European countries, small family farms cherish the application of manure and retain organic production, too. Our farmers widely accept the technology of large enterprise systems in the struggle for high yields. After the decomposition of large businesses enterprises (in state ownership) we develop small and medium farms that seek to use manure to improve the physical, chemical and biological properties of the soil. Soils with low level of nutrients do not present a favorable habitat for some crops, especially vegetables that we largely import.

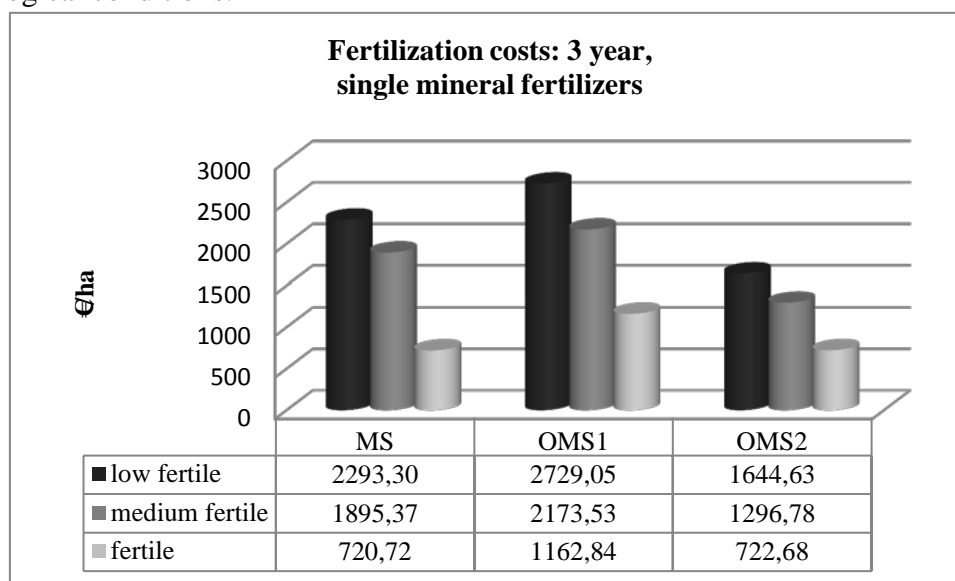
Furthermore, manure management in Croatian agriculture is neglected agro-technical operation due to its complexity of manure spreading on fields.

In paper, fertilization costs were calculated in three year production model – wheat, maize and sunflower production. Expectedly, combination of organic and mineral fertilization was the most expensive fertilization because the machinery costs are very high (Graph 1. and 2). We predicted two scenarios: if manure is purchased according to market price (7€/per ton) – OMC1 and OMS1 version, and if manure is produced on farm - OMC2 and OMS2 version. Soil fertility has important impact on fertilization costs because of the different nutrient demand. As it is shown in Graph 1 and 2, the highest costs are related to OMS2 and OMC2 version 2729,05 and 2548,60 €ha, respectively, for low fertility soils. That fact we were not expected, because fertilization recommendation is more precise if using single mineral fertilization but it can be explained with high prices of single fertilizers in Croatia. Organo-mineral fertilization, if manure was produced on farm, is the cheapest fertilization – 711,42 and 722,68 €/per ha on fertile soil.



Graph 1. Comparison of fertilization costs in 3 year production (wheat, maize, sunflower) using complex mineral fertilizers

Presented costs are related only to fertilization operations and price of fertilizers. Very important fact is that organic fertilization effect positively on crop yield and consequently on profitability of production. Besides, it is important for reducing crop stress in unfavorable agro-ecological conditions.



Graph 2: Comparison of fertilization costs in 3 year production (wheat, maize, sunflower) using single mineral fertilizers

Table 3. Participation of machinery and fertilizers costs

	Machinery costs (%)			Fertilizer costs (%)		
	low fertile	medium fertile	fertile	low fertile	medium fertile	fertile
MC	6,83	7,68	11,97	93,17	92,32	88,03
MS	6,39	7,25	12,76	93,61	92,75	87,24
OMC1	29,16	31,60	45,67	70,84	68,40	54,33
OMC2	45,18	49,47	73,50	54,82	50,53	26,50
OMS1	26,93	30,12	46,27	73,07	69,88	53,73
OMS2	42,62	48,09	74,05	57,38	51,91	25,95

As we can see on Table 3, direct fertilizer costs are more present in low fertile soils, expectedly, because of higher nutrient demand, and vice versa, less present on fertile soil. Furthermore, mineral fertilization has highest fertilizers cost in fertilization cost structure because of high price of fertilizers and high effectiveness of machinery. Machinery costs participated the most in combined fertilization include on farm produced manure, because, fertilizers cost are lower in that case (OMC2 and OMS2). We can notice the savings arising from organo-mineral fertilization (Table 4) as a difference between values (amount $\times$ price) of fertilizers in mineral fertilization and fertilizers in organo-mineral fertilization (amount of mineral fertilizer was reduced by application of adequate manure amount).

Table 4. Fertilizers value and financial saving due to combined organic and mineral fertilization compared to mineral fertilization (€/ha), three year crop production

Fertilizer	Low fertile soil	Medium fertile soil	Fertile soil
Organic fertilization (cattle manure) in combination with mineral fertilization, complex fertilizers – OMC			
Manure	524,93	459,32	393,70
NPK	370,94	315,30	163,83
Urea	159,36	144,87	133,28
CAN	144,58	136,97	114,14
$\Sigma$	674,88	597,14	411,25
Saving*	149,94	137,82	17,55
Organic fertilization (cattle manure) in combination with mineral fertilization, single fertilizers – OMS			
Manure	524,93	459,32	393,70
MAP	111,55	88,58	98,43
KCl	289,86	238,44	0,00
Urea	131,54	119,95	99,67
CAN	144,58	136,97	114,14
$\Sigma$	677,53	583,94	312,24
Saving*	152,60	124,62	-81,46

\* compared to all nutrients added by mineral fertilizers

## Conclusion

Economic analysis of different fertilization methods proves that organic fertilization effectiveness in replacing mineral fertilization depends on soil fertility. Because of high machinery costs, combination of organic (purchased out of farm) and mineral fertilization is 13-39% more expensive than entirely mineral fertilization. When manure is produced on farm, the costs are lower up to 46% compared to mineral fertilization. Higher application of organic fertilization can solve a few problem of agriculture in Croatia: solving manure disposal problem considering environmental EU requirements, increasing soil fertility and crops' yield what is positively related to farm profitability and decreased costs impacts directly on saving money for farmers.

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# EXTERNAL ECONOMIES OF SCALE OF COMPANIES DOING BUSINESS IN CONGRESS AND BUSINESS TOURISM IN THE CZECH REPUBLIC

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## Abstract

The paper deals with firm's behavior in international markets and analyses of monopolistic firm's behavior in long run equilibrium using of microeconomic model. The aim of the paper is to describe the behavior of international firms in congress and business tourism using the model of monopolistic competition. The assumption for application of the monopolistic competition model in the international trade area is the idea that trade increases the market size. In the sectors where external economies of scale apply it is valid that both heterogeneity of the goods the country produces and the extent of their production are influenced by the market size. The above mentioned economic results of the congress and business tourism demonstrate validity of the given model regarding behavior of monopolistic firms on international markets with hotel services. While number of guests is stagnant, we see a decrease in implemented prices during growth of average costs per one day of accommodation, all that with extending offer of services (growing number of hotels, respectively increase of bed capacity). On the other hand, however, with higher number of hotel guests, a growth in prices of accommodation was detected in the last period as a result of lower number of hotels, because some of them ceased to exist. Therefore, stays are currently being sold for higher prices (per one night).

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**Keywords:** External economies of scale, congress tourism, company, monopolistic competition, hotels

## Introduction

Two basic assumptions are valid for the behavior of companies in the environment of imperfect competition. The first one is that a producer is able to influence the price of a product on goods and services market, or the price of a factor on factor market. The second assumption is that a product is identifiable (differentiated). The impact of multinational firms may be characterized within the imperfect competition theory as oligopoly or as monopolistic competition. A frequent form of structure of the sector is an oligopoly, i.e. several competing firms, each of which is big enough to be able to differentiate the prices of its production, but at the same time too small to fix the prices in the sector. The price policy within the oligopoly can be characterized by mutual dependence. The firms fix the prices of their production both with regard to the assumed consumers' behavior and with regard to the assumed competitors' behavior. Analysis of such behavior is complicated. Analysis of the firms' behavior in another imperfectly competitive structure, which is also often common, namely in the monopolistic competition is much easier.

### **Material and methods:**

A lot of various models are used for monopolistic competition analysis. Bogliacino and Rampa summarize the basic approaches of the economic theory to this issue in their article (2010): “A satisfactory picture should be grounded on some essential building blocks. The first one is uncertainty: the very novelty of goods (ideas, technologies, behaviors, etc.) implies that agents must act using conjectures over some unknown feature, as in standard Bayesian approaches (Young 2005). The second block is heterogeneity: individual models are necessarily different at the outset, since they summarize personal conjectures, previous learning and priori ideas (Cowan and Jonard 2003, 2004; Lopez Pintado and Watts 2006). The third block is interaction: the learning activity on the part of agents exploits past observations, stemming mainly from other agents’ choices. Interaction thus shapes the overall process, making it path dependent. Coupling all this with some degree of non-linearity might finally allow for multiple equilibriums, and hence non-uniqueness of outcomes (lock-in: see Aoki and Yoshikawa 2002; Young 2007).”

We have used in this paper the model making use of optimization of the number of firms in the sector, the characteristics of which correspond best to the international trade needs. There are two key assumptions for monopolistic competition in the sector. It is differentiation of the product and the assumption that each firm considers the competitors’ price as given. The firm manufactures and sells the more the higher the demand in the sector is and the higher the competitors’ prices are. It manufactures and sells the less the higher the number of firms in the sector is and the higher its price is.

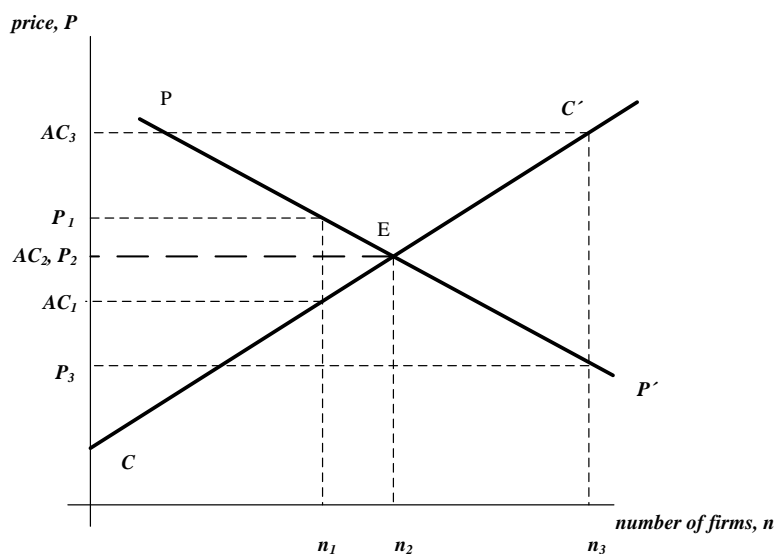
### **The model of monopolistic competition in sector:**

This paper analyses the situation when a company doing business in congress and business tourism enters international trade. The impacts of this entry on creation of optimal number of firms in the sector, of equilibrium quantity and equilibrium price in the given sector are discussed as well.

Average costs ( $AC$ ) depend on the number of firms in the sector ( $n$ ). We assume according to Krugman (2006) that all firms in the sector are symmetric; it means that the demand and cost curves are the same for all firms in spite of the fact that they produce and sell differentiated products. If the individual firms are symmetric, it is easy to find out the sector’s status. If we assume symmetry of the firm models, under equilibrium they shall sell for the same price, which means that each firm’s share in the production and sale of goods is  $1/n$  of the total sale volume in the sector. At the same time we know that the average costs are inversely proportional to the number of products manufactured by the firm. The more firms there are in the sector, the higher the average costs are since each firm produces less.

The situation in the sector may be expressed graphically with two curves: growing  $CC'$  and falling  $PP'$ .  $CC'$  curve expresses the relation among the number of the firms in the sector, the sale volumes and the average costs.  $PP'$  curve expresses the relation among the number of the firms in the sector and the price. The equilibrium state is thus situated in their intersection point, in point  $E$ , which corresponds to the number of firms in the sector  $n_2$ . In case of this number of firms, the profit in the sector is zero (we have in mind the economic profit). If there are  $n_2$  firms in the sector, then the price maximizing the profit is  $P_2$ .

Figure 1: Equilibrium of the sector under monopolistic competition



The total firm's costs may be expressed by the relation

$$TC = \beta q + \alpha . \quad (1)$$

For the average costs, it results thereof

$$AC = \beta + \frac{\alpha}{q} , \quad (2)$$

where  $\alpha, \beta$  are coefficients of the cost function.

It is valid

$$q = \frac{\bar{q}}{n} , \quad (3)$$

where  $\bar{q}$  is the number of products in the sector,  $n$  is the number of firms,  $q$  is the number of one firm's products. By means of connecting these two relations we shall receive:

$$AC = \beta + \frac{\alpha}{\bar{q}} \cdot n \quad (4)$$

The price, for which a typical firm sells its goods, depends also on the number of firms in the sector. The more firms there are, the stronger the competition shall be among them and the lower the price shall be. In Fig. 2 this is shown by the relation

$$P = \beta + \frac{f}{n} , \quad (5)$$

where  $f$  expresses intensity of this competition.

In the intersection point of both curves, this corresponds to the average costs  $AC_2$ . It means that in the long period of time the number of the firms in the sector shall approach  $n_2$ ,  $E$  thus represents the long-term equilibrium point. If the number of firms  $n_1$  was smaller than  $n_2$ , then the price of a piece of goods the firm offers would be  $P_1$  while the average costs would be only  $AC_1$  and the firms would thus achieve monopoly profit, which would attract other firms to enter into this sector, and their number, i.e.  $n_1$  would start increasing. In the same way - to the contrary - if the number of firms  $n_3$  was higher than  $n_2$ , the price  $P_3$  would be lower than the average costs  $AC_3$ , the firms would thus lose interest and leave this sector, and the number of firms in this sector would thus decrease. The economic profit is

$$\pi = \frac{\sqrt{\alpha \cdot f \cdot \bar{q}}}{n} - \alpha , \quad (6)$$

$$\pi_1 > 0, \pi_2 = 0, \pi_3 < 0. \quad (7)$$

If  $AC = P_2$ , it must be valid in point  $E$ :

$$\beta + \frac{\alpha}{\bar{q}} \cdot n = \beta + \frac{f}{n_2} \quad (8)$$

$$\frac{\alpha}{\bar{q}} \cdot n_2 = \frac{f}{n_2} \quad (9)$$

$$\alpha \cdot n_2^2 = f \cdot \bar{q} \quad (10)$$

$$n_2 = \sqrt{\frac{f \cdot \bar{q}}{\alpha}} \quad (11)$$

It is possible to deduce from it:

$$q_2 = \sqrt{\frac{\alpha \cdot \bar{q}}{f}} \quad (12)$$

$$P_2 = \beta + \sqrt{\frac{\alpha \cdot f}{\bar{q}}} \quad (13)$$

Herewith also the quantity of the products of one firm and the equilibrium price of the final goods are determined.

### Firm's involvement in international trade

Let's assume now that a firm under monopolistic competition enters international trade. Increased market size allows each of the firms to produce more and to have lower average costs. Therefore curve  $AC_1$  shall shift to  $AC_2$  in Fig. 2. At the same time, growth in the number of firms and product differentiation occur under the fall of the price of each of the products from  $P_1$  to  $P_2$ .

Growth of the total sale volumes shall decrease the average costs under any given quantity of firms  $n$ . The reason lies in the fact that if the market grows under the same number of firms, the extent of sale per one firm shall grow and the average costs of one company shall fall.

If we thus compare two markets, where one has higher extent of sale than the other one,  $AC_2$  curve of the bigger market shall lie below  $AC_1$  curve of the smaller market. Meanwhile the other curve  $P$  expressing the relation between the price for one product and the number of firms shall not change.

In our model, the international trade influence is expressed by an increase in the magnitude  $\bar{q}$  and a decrease in the inclination of  $AC$ .

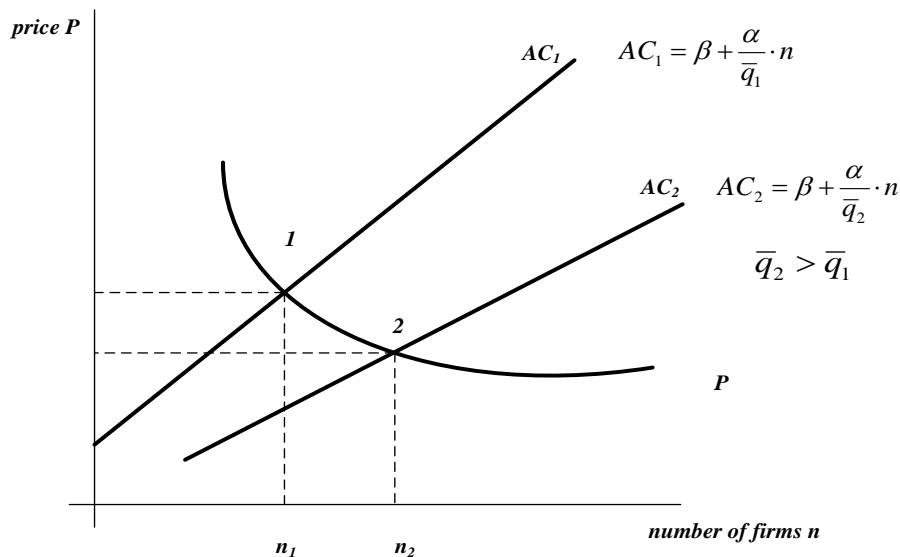
$$n_2 = \sqrt{\frac{f \cdot \bar{q}_2}{\alpha}} > n_1 = \sqrt{\frac{f \cdot \bar{q}_1}{\alpha}} \quad (14)$$

$$q_2 = \sqrt{\frac{\alpha \cdot \bar{q}_2}{f}} > q_1 = \sqrt{\frac{\alpha \cdot \bar{q}_1}{f}} \quad (15)$$

$$P_2 = \beta + \sqrt{\frac{\alpha \cdot f}{\bar{q}_2}} < P_1 = \beta + \sqrt{\frac{\alpha \cdot f}{\bar{q}_1}} \quad (16)$$



Figure 2: Extension of the market size (shifting of AC curve)



The average cost function shows us the long-term consequences of increased market extent. Originally, the equilibrium was achieved in point 1 under price  $P_1$  and the quantity of firms was  $n_1$ . Increased market extent shifts AC curve more to the right bottom and the new equilibrium is achieved in point 2. The number of firms increased from  $n_1$  to  $n_2$  and the price fell from  $P_1$  to  $P_2$ .

Our model assumes that production costs are the same in both countries that trade with each other and that the trade does not require any costs. These assumptions express the fact that even if we know that the integrated market shall support higher number of firms, we cannot say where these will be located. These are the sectors with monopolistic competition where a great number of firms produce differentiated goods.

Similar conclusions have been achieved also by Feenstra and Kee (2010): “We conclude that export variety in the monopolistic competition model with heterogeneous firms is quite effective at accounting for the time-series variation in productivity, but not the large absolute differences in productivity between countries.”

### Congress and company tourism in the Czech Republic

Congress and company tourism can be an example of monopolistic competition among companies on international tourism market. Congress tourism is - due to the attractiveness and history of the region - quite successful in the Czech Republic, the city of Prague however attracts mostly one-day congresses. The number of events with international participation last year increased by 61 % year-on-year. By that, the year 2012 in large extent confirmed the opinion of those, who are convinced that video- or teleconferences will never replace personal communication in business. Companies threw themselves again on a large scale into organizing events for clients, partners, employees or members of expert institutions. According to current data from the Czech Statistical Office, over 11 000 conferences and congresses took place last year in domestic hotels, with more than 1.5 million participants. Both of these numbers are record-breaking and constitute an increase by 8 and 12 %, respectively.

Company events are getting bigger and bigger in scale and are growing the fastest in three-star hotels. It can be – among other things – noted from published numbers that the events have more and more participants. An average of 132 people was calculated for one conference. Reasons for such behavior of the market can be seen especially in more stable financial situation of companies and in increase of orders by organizing associations. Hotels

are so far counting with further growth for this year as well. They also expect greater volume of middle and bigger events and more international multiple-day events with accommodation (Šindelář, 2013).

This is good news for businessmen in tourism. Congress participants and entrepreneurs on business trips are in fact usually the best clients. According to the state agency CzechTourism, such people spend over 10 000 CZK per day, that is three times as much as a common foreign guest. However, companies have been advised even in this respect by a series of different crises. Hotel managers at the same time add that outside-employment activities during company events have been reduced, which has also decreased overall consumption. Therefore, the biggest dynamics is currently seen in cheaper three-star hotels (growth by 9 %), whereas five-star facilities are growing the slowest (growth by 4 %).

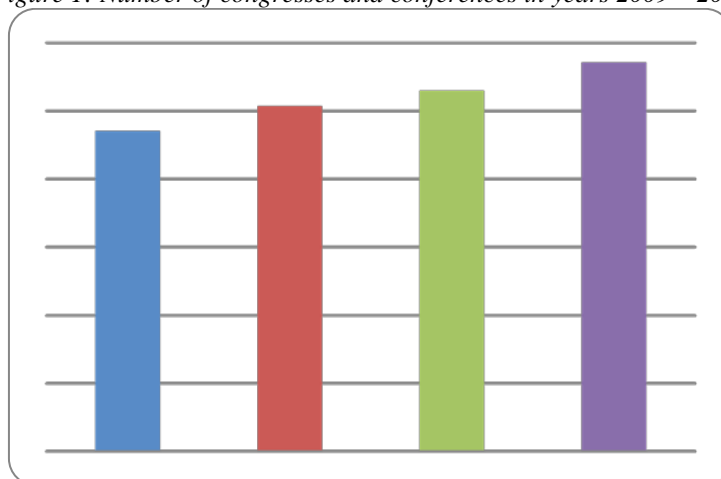
The most conferences are traditionally held in Prague, the city attracts more than half of all participants. South and North Moravia follow, the Moravian-Silesian region improved its position the most of all the regions in the last couple of years (Šindelář, 2013).

*Table 1: Congresses and conferences in Czech hotels*

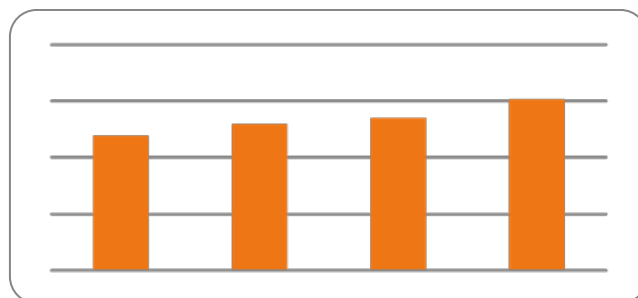
Year	Number of events	Number of participants (in thousands)
2009	9411	1193
2010	10146	1295
2011	10601	1350
2012	11430	1516

*Source: Czech Statistical Office, 2013*

*Figure 1: Number of congresses and conferences in years 2009 – 2012*



*Source: Czech Statistical Office, 2013*



*Figure 2: Number of participants on congresses and conferences in years 2009 – 2012*

*Source: Czech Statistical Office, 2013*

People, however, seem to be the problem; service in Czech hotels still has a lot to improve. This fact arises from the ranking of Hotel.info portal, which is put together based on quality of hotel staff, and where the Czech Republic ranks 15th among European countries. Prague is ranked 16th in the evaluation of staff helpfulness and competency. The number one in the evaluation of quality of hotel staff in Europe is Finland.

*Table 2: European countries by the quality of hotel staff*

1.	Finland	8,36
2.	Germany	8,36
3.	Austria	8,35
4.	Hungary	8,31
5.	Poland	8 27
...	...	...
15.	<b>Czech Republic</b>	8,08

*Source: Hotel.info*

The table 2 shows the evaluation of helpfulness and competency of hotel staff, the best mark is 10.

### **Prices of hotel services in Czech Republic**

According to a survey by company called KPMG, the average price per room in Czech accommodation facilities was further decreasing during 2011. Hoteliers in this year succeeded in selling a room for 1076 CZK on average, which is almost 100 CZK less than in 2010 and 400 CZK less than in 2009.

A very important indicator RevPAR, which is profit per one available room, decreased to 620 CZK in 2011. In 2009, it was still 760 CZK. Low prices lured more guests to hotels, occupancy rate of hotels increased by 4 points to 56 %. However, the length of visit was getting shorter in a long-term trend.

Current indicators in hotel segment are notably lower when compared to the period 2004-2007. The drop started in 2009, so this sector is going through several years of joyless results. The problems in hotel business will not end this year either. For customers, on the contrary, can be the year 2013 a positive one: prices will continue to oscillate in their lower limits.

The most important aspect is that hotel managers are lately successful in increasing prices. Hoteliers and agency Czech-Tourism predict a growth in tourist indicators in 2013 (Šindelář, 2013).

### **Final analysis**

The above mentioned economic results of the hotel industry demonstrate validity of the given model regarding behavior of monopolistic firms on international markets with hotel services. While number of guests is stagnant, we see a decrease in implemented prices during growth of average costs per one day of accommodation, all that with extending offer of services (growing number of hotels, respectively increase of bed capacity). On the other hand, however, with higher number of hotel guests, a growth in prices of accommodation was detected in the last period as a result of lower number of hotels, because some of them ceased to exist. Therefore, stays are currently being sold for higher prices (per one night). The situation in hotel sector is at the moment complicated by long-lasting economic crisis, which becomes evident in savings of companies' spending intended for organizing and participation in conferences. At the same time, consumers have limited their spending on tourism, which increased the pressure on prices for hotel services.

### **Conclusion**

The monopolistic competition includes some of the features of perfect competition and monopoly. Often there are many firms in the market, for which the entrance to (and the exit

from) the sector is free, if they can compete by the deepened differentiation of their product or services. (Soukup, Šrédľ, 2011) The assumption for application of the monopolistic competition model in international trade area is the idea that trade increases the market size. In the sectors where increasing returns to scale apply it is valid that both heterogeneity of the goods the country produces and the extent of their production are influenced by market size. Countries carry on trade among each other and thus create integrated global market that is bigger than any national market. By doing so, the countries get rid of their limitations. Each of them can specialize in production of a narrower spectrum of goods than if it were not for international trade, it can also purchase goods it cannot manufacture itself from other countries. Let's suppose there are two countries and each of them has a market extent approximately for one million accommodated guests on average. When carrying on trade with each other, they may create combined market of two million of accommodated guests. In this combined market, greater possibility of choice is achieved; more types of meal are produced under lower average costs compared to the situation, in which the national markets would be separated.

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# EMPOWERMENT AS A CULTURE AND A STRATEGY TO STRENGTHEN THE ACTIVITIES OF RESEARCH AND INNOVATION: PROPOSAL OF A METHODOLOGY

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## Abstract

This paper presents a proposal for a methodology to guide the implementation process of Empowerment in organizations that manage research and innovation activities in developing regions. It seeks to motivate the interest of research and innovative knowledge application groups use the Empowerment as a culture and a strategy of management in the Organization, looking for the operational flexibility to participate in the economic development of the region where they operate. The proposed methodology to guide the implementation process, aims to provide support to the manager or head of department to provide it with the essential principles that should know and follow in an exercise for improving the organization supported by empowerment. The structure of the methodology incorporates input from consultants and academics who have addressed and practiced empowerment approach successfully in other countries. Our academic interest has been to integrate these proposals with the adaptations that are considered relevant to organizations in developing countries.

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**Keywords:** Empowerment, methodology, organizational culture and strategy

## Introduction

Any organization raises serious way being globally competitive need to change their management style and manage staff. It is no longer possible to maintain rigid, pyramidal organizational structures, because this causes the process of organizational learning and the response time to changes in the environment are slow and inefficient. That's why today have many problems in organizations that directly affect the final product or service they offer. This is due to various problems that are rooted in the lack of communication and culture that prevails in organizations.

This article examines the importance of the concept of empowerment and the skills necessary for its implementation in an organization through teams.

The essence of empowerment is to release, rather than ignore or underutilize, employees' experience, initiative, knowledge, and wisdom. Employee performance is a major factor that leads to the success or failure of an organization. There are several works and studies show that empowering people enhances their skills and performance (Fragoso, 1999; Spreitzer and Doneson, 2005).

The aim of this paper is to present a methodology which will facilitate the implementation of empowerment in organizations dedicated to research and innovation to improve the

performance of the working groups, taking into account the systemic condition and dynamics of living organisms, as is a human organization.

Systems Thinking with a focus on creative holism proposed by Michael C. Jackson (2003), to address the complexity, change, and diversity that implies a comprehensive organizational improvement was used as support to design the conceptual methodological proposal of implementation of empowerment. Systems thinking seeks to be comprehensive, consider the elements involved in a system, as it assumes that the complexity of the phenomena can not be understood unless it is seen in a given context, as a reductionist way to break it down, you lose the relationships between components (Ackoff, 2000).

Therefore, when looking to understand something with the systems approach, it starts by asking how, who, why, what, when, and how this relates to and interacts.

It is considered that this work is important and useful to managers or department heads and leaders of research groups, so they can have a simple guide about the essential principles that should know and follow during an exercise for improving an organization relying on empowerment.

### **Theoretical framework of empowerment**

Ken Blanchard (1996) defines Empowerment as a way of involving members of the teams as if they were partners to determine the success or failure of a company (which depends today on that you take into account the consumer; that is cost effective, fast and flexible and that will improve continuously).

According to Scott and Jaffe, Empowerment is where the optimum benefits of information technology are reached. Members, teams and the organization can fully access the use of critical information, will have the technology needed to implement their skills and demonstrate their accountability and authority to use information and carry out its activity within the organization. To achieve workspaces with empowerment should keep in mind the combination of three dimensions: mindsets, relationships and structures (Scott and Jaffe, 1991).

According to Robinson (1998), is a process that seeks to forge strategic authority, increase confidence, commitment and responsibility, forming a partner relationship between the organization and its employees. It is a synonym for culture of participation, requiring tear down paradigms in terms of decision-making, leadership styles, communication and integration process of the teams around organizational culture.

Terry Wilson in his Handbook of Empowerment, express that empowerment "is to enhance motivation and outcomes of all employees of a company through delegation and the transfer of power" (Wilson, 2004).

Empowerment does not solve all the problems of organizations nor is a psychotherapy or medical treatment. It is a participatory educational experience, aimed at increasing managerial skills, giving effective tools, which are essential to enable people to maintain a balanced lifestyle and give as a result a more harmonious work environment.

Blanchard, Charles and Randolph (1999) also highlight the fact that using empowerment is to move in a positive direction that maximizes the activities and skills. Is also used to find high levels of satisfaction in the face of life's challenges and to accept that everyone has the opportunity to grow much more.

Workplaces with empowerment, are characterized by the search for a new relationship between employees, and by a new relationship between the people and the Organization, some of the features of a workplace with empowerment are shown in Figure 1.

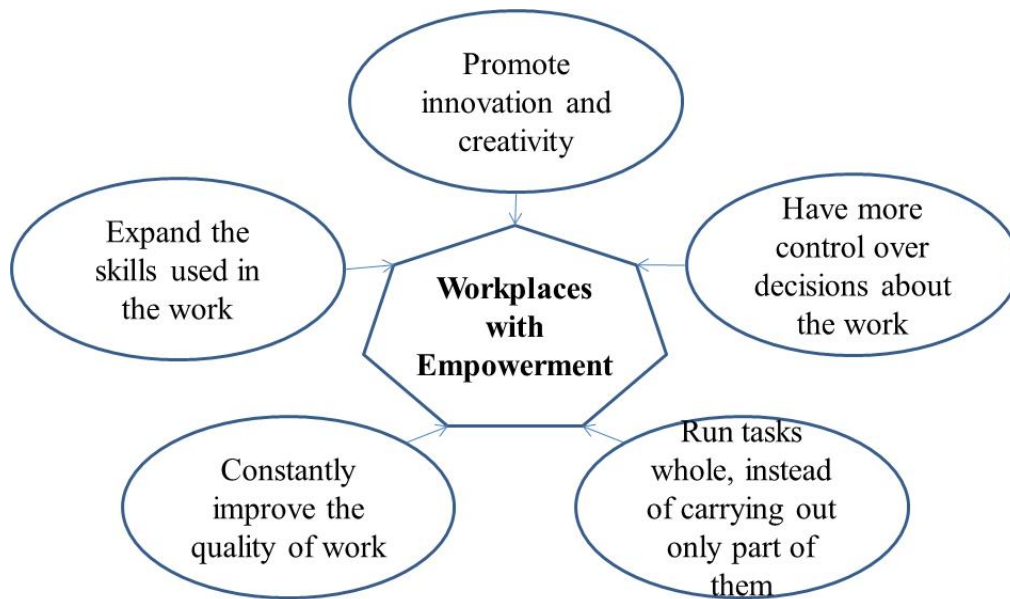


Figure 1. Features of empowerment organizations.

A key idea in the empowerment is the organizational commitment. Arciniega (2002), it is a set of links that keep a subject attached to an organization in particular. Davis and Newstrom (2000), defined as the degree to which an employee identifies with the organization and wish to participate actively. This commitment is stronger for those working in committed groups, and those with more years of service in the organization.

Meyer and Allen (1994), refer to the commitment in the organisational sphere, defined in three aspects or dimensions: the emotional or affective, which is related to the level of identification of the employee with organization; membership or continuation, reflects the need of the partner to continue in his post; and regulations, is the degree of obligation that the employee manages to remain in the organization.

Blanchard, Charles and Randolph (2000), made an excellent presentation to show the multiple benefits of empowerment, but not ignore the difficulties of carry out within it. The authors argue that the keys to empowerment can occur include the sharing of information in an organization, a group or a guild, create autonomy through setting limits and replace the old hierarchies with self-directed workgroups.

According to these authors, in an empowered organization, employees bring their best ideas and initiatives to work with joy, sense of belonging and pride.

Creating an empowered workplace requires passing the domain and control of a few to responsibility and support each other, so that everyone has the opportunity to do their best. To do this, the thought of the administrators or leaders must be changed first. The organization should focus on the user, to be effective, fast and flexible to continuously improve. In today's world success begins with users. Now we must do more with less in order to survive, so the changes and strategies that worked in the past may be outdated.

Employees of modern organizations need freedom to take risks, release and develop all the potential and have strength to overcome fears, create a genuine and authentic sense of teamwork and collaboration with those around you, improve in a permanent way, self-esteem and self-confidence, renew energy and increase the excitement, better manage difficult situations and learn to accept every challenge occurring in life as well as acquire new commitments to achieve results and emotions. If an examination or diagnosis of the Organization shows that the above aspects are not covered, or are severely limited, it is a sign that you need to employ the empowerment.

Spreitzer and Doneson (2005) point out that three perspectives of the empowerment, which are shown in table 1 have been developed through time.

*Tabla 1. Three Perspectives on Empowerment.*

	<b>Roots</b>	<b>Essence</b>	<b>Level of Development</b>	<b>Authors</b>
<i>Social/Structural</i>	Democratic principles and sociology	Sharing power and decision making	Extensive theoretical development and practitioner writing. Focus. Some empirical research.	Prasad & Eylon, 2001; Bowen and Lawler, 1995; Pfeffer, Cialdini, Hanna, & Knopoff, 1997; Campion, Medsker, & Higgs, 1993; Blanchard, Carlos, & Randolph, 2001.
<i>Psychological</i>	Social psychology and intrinsic motivation	Experiencing meaning, efficacy, self-determination and impact	Extensive theoretical development and empirical research. Rigorous measurement	Conger & Kanungo, 1988; Thomas & Velthouse, 1990; Hackman & Oldham, 1980;
<i>Critical</i>	Postmodern theory and deconstructionism	Understanding who controls formal power structures	Initial conceptual ideas	Wendt, 2001; Boje & Rosalie, 2001; Barker, 1993;

*Source: Spreitzer, G. and Doneson, D. (2005).*

An organization's culture is a complex thing. Yet it is upon this foundation that empowerment is built. The organizations which successfully implement employee empowerment will have certain values at their core from which the process of empowerment can flow. Among these values are respect and appreciation for individuals and the value they bring to the organization. Values alone do not make up an organization's culture, and respect for individuals is only one of the outward signs of an empowered culture. Edgar Schein defines organizational culture as, a pattern of basic assumptions—invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration—that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein, 1985). Nonetheless, the culture of the organization must support the thrust of empowerment if there is any chance for success.

Quinn and Spreitzer (1997) indicate, "empowerment must be defined in terms of fundamental beliefs and personal orientations", which is an apt description of organizational culture. Also emphasize that, Empowered people have a sense of self-determination, a sense of meaning, a sense of competence and a sense of impact.

The empowerment approach is reinforced in the value of innovation culture, mobilizing individuals and self-directed teams to generate new ideas to improve their processes, products and services, exerting positive results in growth and progressive development of the organization, that finding is supported by Cardona (2001), cited by Petit and Gutierrez (2007) who runs these results through trust and commitment of people with innovative companies characterized by success in their roles.

All this is based on the promotion and formation of functional action teams whose capacity allows its members collaborate without restriction, in business, applying challenges, tools appropriate for the execution of the tasks, with optimism, creativity and cross-collaboration, surpassing traditional structures in the innovation processes, through the harmonious and driving participation of such progress (Petit and Gutierrez2007).

Finally, it is considered that an effective organization, is the one that maintains an appropriate balance of freedom and control at the level of individual, team and organization, as illustrated in Figure 2 (Scott and Jaffe, 1991).



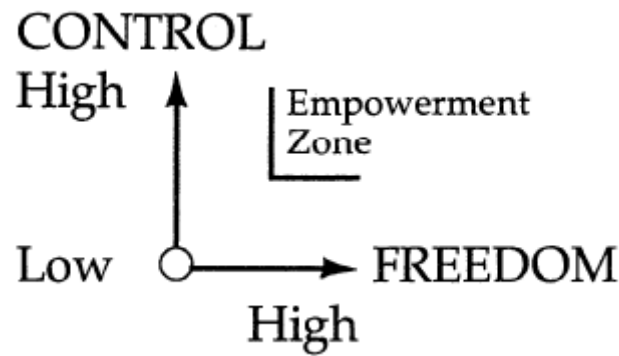


Figure 2. The empowerment balance.

Previous perspectives are important to us in the conceptualization of the methodology proposed in this work.

### Skills required to operationalize the empowerment

To perform a successful intervention of Empowerment in an organization are required to develop some skills that help to understand more of this strategy (Scott and Jaffe, 1991;) Robinson, 1998; Houtzagers, 1999; Maynard, Gilson and Mathieu, 2012). These skills are shown in Figure 3.

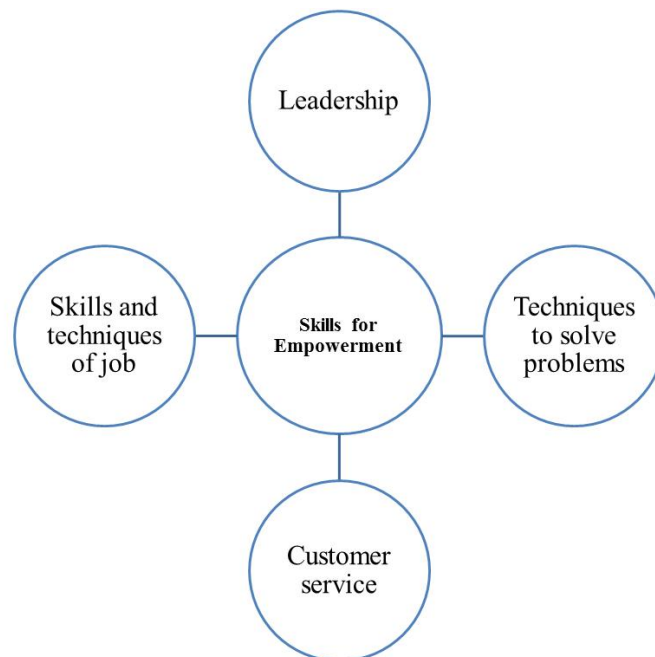


Figure 3. Skills for the operationalization of Empowerment.

In addition to these skills, it is important to build effective work teams. Increasingly, companies are concerned by promoting self-directed teams. This allows to organize people in way such that are responsible for a certain yield or area (Hempel, Zhang, and Han, 2012). The team takes many of the responsibilities previously assumed by supervisors, such as allocation of work with self-direction, which is a great way to energize people whose current jobs are limited in scope. Work teams are classified in three different forms that are described below in Table 2 (Hut and Molleman, 1998; Evans and Lindsay, 1999):

Table 2. Types of teamworks.

Types of work teams	Description
Troubleshooting	These are groups which, depending on the size of the Department where form, can be a five or ten people. They receive special training and meet regularly to distinguish and to solve problems in their specific area of work. They are dedicated to identify, select, analyze, and solve problems in your work area.
Self-managed	They are those in which workers are trained to perform most of the work of a unit. They have no immediate supervisor and make decisions that previously corresponded to the first line supervisors. These teams are more frequent in the area of manufacturing.
Interfuncional	Also referred to in the industry such as quality circles, are a support to motivate the employees of different departments to work together. To unite all the people involved in a process, cross-functional teams can keep abreast of what happens, examine the weaknesses throughout the system and generate a wide variety of ideas about the possible causes of a problem and its solutions.

### **A proposed methodology for implementing empowerment in organizations dedicated to research and innovation**

The following methodology is proposed on the basis of the recommendations and experiences of the authors Kenneth Blanchard, Cynthia Scott, Dennis Jaffe, and Terry Wilson, who have had successful consulting experiences in other countries. It is product of a first approach to integrate a methodology that will facilitate the use of empowerment in organizational cultures such as those in developing countries.

The methodology tries to integrate the proposals, ideas and measuring instruments that these authors have contributed to the implementation of the empowerment in various organizations and is suited to organizations in developing countries as Mexico. The methodology consists of three phases: a) training, b) the application of instruments of measurement of the level of empowerment in the Organization and c) the application of the factors of success. The following is a brief description of each.

#### **Stage I – Training**

As point of departure in methodology is considered as a key element, carry out a process of training about what is Empowerment, their characteristics and concepts, the benefits they can offer and the aspects on the management of human resources in an organization, allowing you to properly interpret this approach. This training must start with the directors and managers of the company and subsequently employees from different areas. The training can develop in three sessions: introduction, concepts and interpretation; whereas a reasonable amount of time between each session. What is being sought at this stage is that both managers and employees assimilate the empowerment approach.

#### **Stage II. - Application of level measurement instruments of empowerment.**

It is characterized by applying a series of instruments or questionnaires that help to measure the level of empowerment in management and organization. The instruments proposed by the above authors are four: analysis of styles management, analysis of indicators empowerment, analysis of empowerment techniques and analysis of the levels empowerment.

*Analysis of management styles (AEG).*- Consists of a set of claims related to a series of situations and events management.

*Step 1.* You should read all points and indicate how to act in each of them, according to the rating scale shown in Table 1 of Appendix 1. The questionnaire proposed by Terry Wilson helps to assess the management style that promotes Empowerment. Keep in mind that the questionnaire should be answered taking into account the mode of acting and directing,

not thinking and should be answered correctly. This will give a truer indication of the current management style and an assessment of corrective action to be undertaken. The questionnaire is shown in Table 2 of Appendix 1.

*Step 2.* Once you finish the analysis of management style, all results will be transferred to a format where skills are concentrated (see Table 3 of Appendix 1). The rating of each item of the questionnaire was placed next to the corresponding item number in the matrix. The numbers are placed horizontally. For each rating column, you must add the positive numbers and then add the negative and place them in the appropriate boxes. Then you have to subtract the smaller number from the larger number, typing it in the box of the total, placing the sign that has resulted, (+) or (-).

*Step 3.* Once you finish answering the questionnaire and qualify for the analysis of management style and has filled the concentrate grade, it shall transfer the total score for each of the four styles inside the profile. Then you must select the format score to delineate management profile (see Table 4 in Appendix 1). The mark is made on the dotted line with a cross and the crosses are subsequently joined to form a profile. The letters are arranged in the first row of Table 4, have the following meaning:

R = repressor, M = Motivator, C = Controller and E = Empowerer.

We deliberately not specified in this format management styles not to influence the answers.

*Table 3. Management styles.*

Style	Description
Repressor	Accurately sets standards that each of its partners must meet. If someone fails to achieve them will have immediate knowledge of any failure in their performance and receive a reprimand or any other punishment if it falls below the standard repeatedly.
Controller	Use agreements and formal systems to ensure that all tasks are performed and work effectively. It is responsible for setting the standards that all meet and personally responsible for monitoring and controlling the performance. If these standards are not achieved or tasks are performed incorrectly, the controller ensures that you make the necessary actions to solve it, but without the penalty associated with the figure of the repressor.
Motivator	Operates with the wishes and needs of the people to lead them and influence them. There are a variety of techniques to achieve it, as involving people in the establishment and control of standards. Communication at all levels is used to inform and motivate. One of the most important techniques that applies the motivator is the personal help and participation. If mistakes are made, or a job goes wrong, the motivator becomes one of the team and helps to make the corrections and modifications needed. Each of the members of the team has his work and features carefully selected based on their knowledge, skills and competences.
Empowerer	Encourages others to create their own energy, enthusiasm and power rather than impose it from the outside. It allows employees to self-manage as much as possible. They establish and control their own standards and there is a real communication in both directions between the Empowerer and individuals. If you make an error, the solution is used as an opportunity to learn something and not perform any type of punishment or reprimand. It encourages team members to become problem solvers to prevent them from committing the same mistake.

*Analysis of indicators Empowerment.* In regards to the Empowerment indicators some factors are listed to consider this approach. A test proposed by Terry Wilson helping to understand in a way is used for which complete the diversity of factors influencing the environment of Empowerment. The test values to the company with respect to a number of indicators that can measure the level of Empowerment in an organization.

*Step 1.* Each indicator should be analyzed in order and must be added a score on a scale of 1 to 7, according to the status in which the organization is and should be marked with a circle where you believe that the company is right now . This test should answer according to the parts of the organization that are well known (see Table 5 in Appendix 1). The indicators considered in this instrument are fifteen: Reputation, The focus of

managers, Management Empowerment, Work Environment, Leadership, Unleashing human potential, Recognition and reward, Innovation, Trust, Teamwork, Decision making and control, Communication, Customers, Structure and procedures and Objectives of the organization.

*Step 2.* When you have completed the questionnaire and are sure that the scores assigned are right, all the scores that were obtained shall be transferred to Table 6 (Appendix 1), marking an X in the corresponding number. Once transferred all the scores are joined with a line to form a profile.

*Analysis of Techniques Empowerment.* The high ideals may never met unless that managers and employees use some practical techniques for thinking about the Empowerment and implement it in their daily operations. Some of these ideas and techniques can be difficult to accept at first, but there will be others that have formed part of the slang of the company for many years.

*Step 1.* Identifies the techniques currently use to manage personnel and valued advantages and disadvantages in relation to empowerment.

*Step 2.* Training in techniques of Empowerment such as: The business paradigm; Change of role; Empowerment Advocate, Delegate; Conduct walking, Job rotation, Assessments of development, Self-direction, Project teams.

*Step 3.* Choice of techniques of Empowerment. Since you have an overview of techniques that can be used to help the Empowerment of workers in an organization, the feasibility of its use should be discussed. Now you must consider each of the techniques and analyze whether they could be applied in the current status of the enterprise and the way to do it. To make the choice, it is suggested to use table 7 of Appendix 1.

*Analysis of the Levels Empowerment.* A company that wants to delegate authority to the people, may face the problem of knowing where to start. The starting point will be determined by several factors, one of which is the source of inspiration of Empowerment. Perhaps the most important factor is the vision we have of Empowerment within the organization. A company can focus on individuals and in the works that these bear out. This increases the role of the worker giving greater responsibility and freedom for decision-making, which leads to an extension of the skills and the development and use of latent potential. Through this process people develop a greater sense of self-esteem and integrate much more inside the company. Companies have to decide which is the best solution for them and where to start the process.

*Step 1. Review level 1: Job.-* When Empowerment is initiated at the level of job, changes the structure and context of a person's work. Although the context is the same, the extra tasks add more meaning and control to individual. One of the biggest changes that take place in the process of Empowerment of a job is the new attention given to the improvement. The fact to be constantly looking for ways to improve their work can make innovative employees and obtain job satisfaction which is the cornerstone of the Empowerment.

*Step 2. Review Level 2: The workplace.-* The workplace can be defined as the environment and circumstances in which the goods or services are produced. The total work environment, gives a business a better chance of starting the Empowerment that the individual work of level 1.

*Step 3. Review Level 3: Unit.-* The Empowerment at the level of unit involves participation in the conduct and management of a specific unit within a larger enterprise. The Empowerment in the unit requires a flat structure is not hierarchical, non-bureaucratic, perhaps a level between the director of the unit and operational employees. A structure that would push decision making and open communication lines, so that there would be a faster information flow top-down, within the company.

*Step 4. Review Level 4: Company.* - The Empowerment at level 4 is an extension of level 3. Workers are involved in your decision making and business unit to which they belong. Any organization that includes several units, may rule on a centralized headquarters or affecting working life of each employee, for each of the units.

### **Stage III- Implementation of the success factors in the process of empowerment**

Most of the people who begin to know the Empowerment would like to have a way to get instantly. To Empowerment misfortune takes time, time that will make everyone fully understand. The first factor of the process is characterized by illusion, anxiety and ignorance of what it means to Empowerment. The following describes each of the Empowerment success factors proposed by the authors Ken Blanchard, John P. Carlos and Alan Randolph, to start.

**First success factor. Share information.** Information is the first key to empowering individuals and organizations. Administrative Information sharing with partners of an organization, not destructive as long as they are trained not only to interpret but also to properly manage across the organization. It also allows employees to understand the current situation in clear terms. The analytical ability to interpret information from a partner, not always exist, each of them has different skills and attitudes. Information is power, it is very normal that protect information management for the status quo of the organization and the management itself is not affected. For this first factor can be effectively implemented is required to consider the following points.

- (a) The need to share information.
- (b) Questions about information sharing.
- (c) Information needed to help improve the performance of the company.
- (d) Difficulty of sharing information between leaders and employees.
- (e) Information on the members of the teams.
- (f) Location of information within the company.
- (g) Information that should be shared about the company.
- (h) Liability that you want to get sharing information.

**Second success factor. Clearly define the boundaries to begin to develop autonomy.** After the initiation of the change, sharing information and highlighting the sense of workers and members of the team that they are masters of their work, as the confidence of the leaders in its staff, it is advisable to publicize the need for signal limits in the culture of Empowerment. Apply this second factor involves considering the following aspects: a) difference between a hierarchical culture and a culture of Empowerment; (b) utility of the clear boundaries; (c) establish the limits necessary and effective; (e) imposition of limits to manage change to Empowerment; (f) the decisions taken by the workers.

**Third success factor. Replace the hierarchy by self-directed teams.** Self-directed teams are slow to be created. An effective leader that guide and develop the team still can be important in this phase of change. Teams go through four distinct phases in the process of change. The first phase is the orientation in which the level of skills related to how work in teams, is low, while naively high mood to work together as a team. The team need much direction, especially to define the mission, values, functions, objectives and operating procedures. This is the stage of team development that occurs at the beginning of the process of change. For this factor may have the expected effects should consider the following aspects: a) Recognize that teams are crucial to the success of Empowerment, b) Generate the expected negative causes immediate success on teams, c) Workers must learn to build teams with Empowerment, (d) Should make decisions of lower relevance.

The complete conceptual model of the methodology proposed in this work is shown in Figure 4.

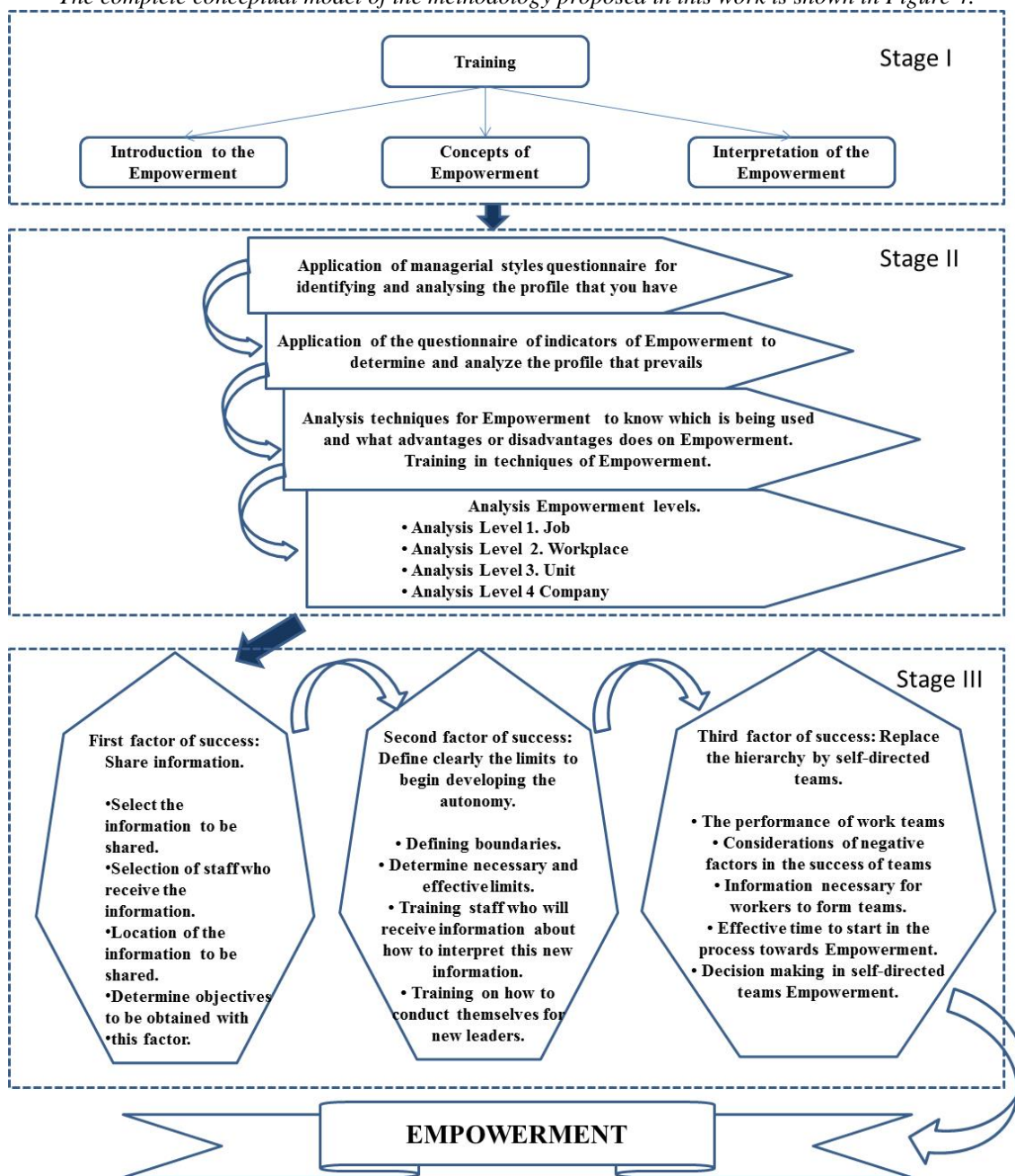


Figure 4. Proposed methodology for the implementation of Empowerment.

## Final Thoughts

It has been proposed a methodology to implement the Empowerment considering training as a support for the process and starting point, complemented by the use of instruments of measurement and evaluation suggested by Wilson and others authors, about the styles of management, indicators and techniques of empowerment. In the final stage, the three factors of success of empowerment are used: to) share information in order to take responsibility to the team and make them feel important in this process of change and noted that information sharing must be congruent with the person that is shared; b) point out the limits of the autonomy to be able to control the change that is occurring in this process and c) create self-directed teams.

Indicators, techniques and levels of empowerment presented are tools that help to know the current status of the Organization and undertake the improvement towards empowerment. A

key factor in this process of transformation is the training that is provided to people about the topic and the monitoring necessary for the improvement actions. Empowerment is a good strategy, but that by itself alone will be unable to achieve a positive impact on the Organization since it consists of much more than the study of the information presented. It involves a strong effort by all the people who are part of the company that will result in a new organizational life.

We consider it important to highlight that an effort introduction of empowerment not only brings efforts and sacrifice to the people who work in an organization, but is also achieved a better environment for its members, greater efficiency, quality and a better standard of living in all aspects to the organization.

Empowerment in organizations devoted to research and innovation can help improve performance if it does a good induction process and is given adequate monitoring into its implementation.

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**Appendix 1**

Table 1. Scale response values and their meaning.

Estoy completamente de acuerdo con esta afirmación. Es así cómo actuaría o trataría la situación.	+2
Estoy bastante de acuerdo con esta afirmación. Probablemente actuaría o trataría la situación de esta manera.	+1
Me considero neutral con esta afirmación. Ni estoy de acuerdo ni en desacuerdo. No estoy seguro si este punto describe cómo actuaría o trataría la situación.	0
Me siento bastante de acuerdo con esta afirmación. Probablemente no me comportaría o trataría la situación de esta manera.	-1
Estoy completamente en desacuerdo. No me comportaría ni trataría la situación de esta manera.	-2

Table 2. Questionnaire analysis of management styles.

1. Establezco normas concretas y espero que todo el mundo las cumpla.	
2. Compruebo y controlo cuidadosamente los objetivos de todo el mundo.	
3. Utilizo la comunicación para motivar e informar a mis colaboradores.	
4. Animo a los demás para que piensen en soluciones alternativas a cosas que creo han hecho de manera incorrecta.	
5. Siempre hago las cosas más importantes yo mismo.	
6. Intento no pensar en mis debilidades.	
7. Considero a las personas que no me gustan como un reto y las animo para que lo hagan lo mejor posible.	
8. Discuto abiertamente con mi equipo cualquier falta de confianza que yo pueda tener para que podamos trabajar en ello.	
9. Siempre compruebo el trabajo que hacen los demás para ver si han hecho lo que les he dicho.	
10. Ejercer control sobre mis colaboradores y el trabajo que éstos realizan.	
11. Creo que, en general, los altos directivos tienen un conocimiento más amplio pero los demás también tienen contribuciones que hacer.	
12. Pregunto a los demás, de manera que tienen que pensar sobre unos temas concretos y desarrollar nuevas ideas.	
13. Tengo poco tiempo para las personas que considero lentas y no comparto mis puntos de vista.	
14. Controlo a los demás para que den sugerencias e ideas.	
15. Puedo activar a los equipos para que sean productivos y eficientes.	
16. Tengo la habilidad de desarrollar y hacer crecer a las personas.	
17. Castigo a los que cometen errores.	
18. Controlo personalmente las normas de funcionamiento de mi equipo.	
19. Motivo a las personas para que consigan sus objetivos.	
20. Siempre tengo una comunicación abierta en dos direcciones con mi personal.	
21. Hago saber a mi personal de manera inmediata si estoy en desacuerdo con lo que hacen.	
22. Sólo confío en una serie de personas experimentadas para que hagan tareas importantes.	
23. Animo a las personas para que olviden sus debilidades y se concentren en sus puntos fuertes.	
24. Intento entender a las personas que no me gustan para que podamos desarrollar un campo común e ir hacia delante juntos.	
25. Considero que la falta de confianza es una debilidad importante que necesitamos esconder.	
26. Tengo métodos para comprobar el trabajo que hacen los demás.	
27. Puedo persuadir y motivar a otras personas para que planifiquen y controlen su trabajo.	
28. Creo que todo el mundo puede hacer contribuciones, sólo necesitan apoyo.	
29. Espero que las personas hablen por sí mismas, si no lo hacen no merecen ser escuchadas.	
30. Desarrollo una relación de trabajo con personas con las que no comparto un punto de vista.	
31. Motivo a los demás para que puedan dar sus sugerencias e ideas.	
32. Fomento un espíritu de equipo que es contagioso y se expande por toda la empresa.	
33. Soy duro pero justo.	
34. Señalo de inmediato los fallos de los demás.	
35. Invito a las personas para que establezcan y controlen las normas.	
36. Espero que las personas establezcan sus propios objetivos.	
37. Comunico con mis subordinados de manera clara, precisa y con sentido.	
38. Hago que la gente cambie cosas si no estoy de acuerdo con lo que han hecho.	
39. Les doy a las personas tareas importantes para inculcarles moral y motivación.	
40. Animo a las personas a discutir abiertamente sus debilidades para que podamos utilizarlas como formación y desarrollo personal.	
41. No puedo tolerar algunos tipos de personas y por lo tanto las evito.	
42. Controlo mi falta de confianza a la hora de tratar ciertas situaciones difíciles.	
43. Compruebo el trabajo de otros y les motivo para que alcancen mayores objetivos.	
44. Animo a otras personas que piensen en la mejor manera de conseguir hacer algo.	
45. Me siento sólo dispuesto a dejarme influir por personas que considero más que yo o que son superiores a mí.	
46. Me aseguro de que cada persona tenga su opinión sobre todos los demás.	
47. Puedo construir una relación de trabajo provechosa con personas que no piensan como yo.	
48. Permiso que otras personas desarrollen sus propias sugerencias e ideas.	
49. Permiso que los equipos trabajen con efectividad dándoles una fuerte dirección y unas directrices para que las sigan.	
50. Me gusta el orden y el control.	
51. Ayudo a los demás cuando cometen errores.	
52. Persuado a las personas para que establezcan y controlen sus propias normas.	
53. Le doy a mi personal objetivos precisos que deben conseguir.	
54. Me comunico con claridad con mi personal.	
55. Ayudo a otras personas a corregir las cosas que creo han hecho incorrectamente.	
56. Animo a cada uno de los miembros del equipo para realizar tareas importantes porque ello aumenta su habilidad técnica y su experiencia.	
57. Intento esconder mis debilidades porque los demás pueden utilizarlas en mi contra.	
58. Me aseguro de que las personas que no me gustan estén bien controladas.	
59. Utilizo cualquier falta de confianza que tenga como motivación para conseguir una mejor actuación personal.	
60. Espero que otras personas comprueben su propio trabajo y hagan las correcciones necesarias.	
61. Yo personalmente proporciono los planes detallados de cómo se debe de hacer un trabajo.	
62. Respeto a las personas que llevan más años que yo trabajando en la empresa y que tiene un mayor conocimiento.	
63. Animo a las personas a que hablen y se expresen porque ello incrementa su interés y su motivación.	
64. Intento entender a todo tipo de personas para que podamos llegar a un mayor entendimiento y podamos ir hacia delante juntos.	
65. A menudo descarto o no tengo en cuenta las ideas y sugerencias de los otros y utilizo las mías en su lugar.	
66. Lidereó equipos con una dirección y control claros.	
67. Motivo e inspiro a la gente.	
68. Ayudo a los demás a aprender de sus errores.	

Table 3. Concentrate AEG questionnaire scores.

R		C		M		E	
No. de ítem	Puntos	No. de ítem	Puntos	No. de ítem	Puntos	No. de ítem	Puntos
1	2	2	3	3	4	4	4
5	6	6	7	7	8	8	8
9	10	10	11	11	12	12	12
13	14	14	15	15	16	16	16
17	18	18	19	19	20	20	20
21	22	22	23	23	24	24	24
25	26	26	27	27	28	28	28
29	30	30	31	31	32	32	32
33	34	34	35	35	36	36	36
37	38	38	39	39	40	40	40
41	42	42	43	43	44	44	44
45	46	46	47	47	48	48	48
49	50	50	51	51	52	52	52
53	54	54	55	55	56	56	56
57	58	58	59	59	60	60	60
61	62	62	63	63	64	64	64
65	66	66	67	67	68	68	68
SUMA DE NUMEROS POSITIVOS							
SUMA DE NUMEROS NEGATIVOS							
TOTAL							

Table 4. Delineating management profile.

ESTILO DE GESTIÓN	PUNTAJOS	REPRESOR	CONTROLADOR	MOTIVADOR	EMPOWERER
34					
32					
30					
28					
26					
24					
22					
20					
18					
16					
14					
12					
10					
8					
6					
4					
2					
0					
-2					
-4					
-6					
-8					
-10					
-12					
-14					
-16					
-18					
-20					
-22					
-24					
-26					
-28					
-30					
-32					
-34					



Table 5. Empowerment indicators.

1	Tenemos la reputación de ser serios, jerárquicos, tradicionales y autoritarios. El Empowerment es lo último en que pensamos.	1 2 3 4 5 6 7	Tenemos la reputación de mirar hacia delante, ser propositivos y líderes en el desarrollo de nuestra gente. El Empowerment es un tema básico en nuestras prácticas, reputación e imagen.
2	En la empresa no hay una cultura de credibilidad en el apoyo al Empowerment algunos directivos dicen apoyarlo pero no cambian en nada.	1 2 3 4 5 6 7	En la empresa todos los altos directivos están consientes y apoyan y practican el Empowerment. Los resultados son visibles y están ahí donde todo el mundo puede verlos.
3	Hablamos sobre el Empowerment pero no lo entendemos. Los directivos no tienen la suficiente noción de la forma correcta de gestionar el Empowerment.	1 2 3 4 5 6 7	Entendemos totalmente el Empowerment. Se gestiona de manera efectiva y produce grandes beneficios en la empresa.
4	Cuando entramos en la empresa nos encontramos con una atmósfera de letargo, con un ambiente muy denso. Inflexibilidad y valores pobres. Los empleados viven en el conformismo no se involucran y no les importa.	1 2 3 4 5 6 7	Cuando entramos en la empresa nos encontramos con una atmósfera de compromiso, los empleados proponiendo mejoras y se les nota mucha energía e interés. Todos están dedicados y luchan por la excelencia.
5	La mayor parte de nuestros directivos tienen poca noción de cómo animar y mantener el Empowerment dentro de la empresa.	1 2 3 4 5 6 7	La mayoría de nuestros directivos sabe cómo animar y mantener vivo el espíritu del Empowerment en sus equipos y en los individuos. Los resultados obtenidos de sus esfuerzos son excelentes.
6	No hay ningún intento de liberar los talentos y las habilidades de todos los empleados de la empresa. La mayoría de éstos tienen un potencial que se está desperdiciando.	1 2 3 4 5 6 7	Se lleva a cabo todos los esfuerzos para liberar todos los talentos y las habilidades de todo y cada uno de los empleados. Tenemos mucho éxito y todos contribuyen en ello.
7	No existe la idea de que el Empowerment tiene que ser apoyado y recompensado. Las iniciativas de Empowerment se debilitan y mueren.	1 2 3 4 5 6 7	Está totalmente aceptado el hecho de que el Empowerment requiere un reconocimiento y una recompensa, formal e informal, utilizamos muchos métodos efectivos.
8	No hay Empowerment así que hay poca innovación en la empresa. Sufimos una gran falta de ideas nuevas.	1 2 3 4 5 6 7	El Empowerment produce innovación en todos los niveles de la empresa. Los beneficios son enormes.
9	Hay poca confianza y los errores son rigidamente castigados. Las personas raramente intentan hacer cosas nuevas.	1 2 3 4 5 6 7	Hay un nivel alto de confianza. Las personas están dispuestas a correr riesgos e intentar cosas nuevas.
10	Esperamos que las personas estén enarboladas para decirle como individualmente.	1 2 3 4 5 6 7	Entendemos totalmente el poder del trabajo en equipo. Los equipos con Empowerment contribuyen en gran manera a las metas de la empresa.
11	No hemos dado tienda suelta al poder del equipo.		
12	Todas las decisiones que afectan a los individuos y a sus trabajos las toman los directivos que hay por encima de ellos. Como consecuencia, no tienen la sensación de que sus trabajos les pertenecen.	1 2 3 4 5 6 7	Todos están involucrados en las decisiones que les afectan a ellos y a sus trabajos. Están involucrados y tienen un sentimiento de que su trabajo les pertenece.
13	Las comunicaciones son muy pobres. La mayoría de los empleados no están comunicados y sólo los altos directivos saben lo que está pasando.	1 2 3 4 5 6 7	Las comunicaciones son excelentes. Las personas están totalmente informadas de todos los temas que afectan a sus trabajos y a la empresa y pueden retroalimentar sus opiniones.
14	Llevamos a cabo pocas acciones para satisfacer a nuestros clientes. Por consiguiente reciben frecuentemente un servicio por debajo del estándar y mercancías de baja calidad.	1 2 3 4 5 6 7	Damos capacidad de decisión a las personas y orientamos sus energías hacia el cliente. Los clientes reciben un excelente servicio y constantemente buscamos la mejora.
15	Las iniciativas de Empowerment están siendo bloqueadas por las estructuras y los procedimientos anticuados de la empresa. Somos reacios a hacer cambios.	1 2 3 4 5 6 7	Hemos eliminado las estructuras y procedimientos anticuados. No permitimos que nada bloquee nuestras iniciativas de Empowerment.
16	El Empowerment contribuye en poca manera a la consecución de los objetivos empresariales. Los esfuerzos de Empowerment son resistentes o están mal orientados.	1 2 3 4 5 6 7	El Empowerment contribuye en gran manera a la consecución de los objetivos empresariales. Los talentos y habilidades de cada uno de los empleados están correctamente orientados.

Table 6. Concentrate Empowerment level measurement in an organization.

Indicadores.	Bajo Empowerment			Alto Empowerment			
	1	2	3	4	5	6	7
1 - Reputación.							
2 - Enfoque de los directivos							
3 - Gestión del Empowerment.							
4 - Atmósfera.							
5 - Liderazgo.							
6 - Liberar el potencial humano							
7 - reconocimiento y recompensa							
8 - innovación.							
9 - Confianza							
10 - Trabajo en equipo.							
11 - Toma de decisiones y control							
12 - Comunicaciones.							
13 - Clientes.							
14 - Estructura y procedimientos.							
15 - Objetivos de la empresa.							

Table 7. How to use Empowerment techniques.

Técnicas de Empowerment	¿Cómo las utilizaríamos?
El paradigma empresarial	
<b>Cambio de papel</b>	
Defensores del Empowerment	
Delegar	
Dirigir paseando.	
Rotación de trabajos	
Evaluación de desarrollo	
<b>Autodirección</b>	
Equipos de proyecto	
Formación de técnicas y nuevas perspectivas.	

# IMPACT OF THE GLOBAL CRISIS ON LABOR MARKETS AND UNEMPLOYMENT IN SLOVAK REPUBLIC<sup>7</sup>

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## Abstract

Defining demand at a national level is problematic in terms of the total volume of the structure, as to the performance of transnational corporations. Reviving of unemployment can not only be assessed at the national level, but an important aspect affecting national labor market is the revival of global economy which leads to the growth of the global labor needs. Currently, the focus of new jobs is shifting from partial professions towards cross-cutting and systemic professions, which must give a comprehensive response to developments in a particular industry. Slovakia is a small market economy significantly tied to major European economies, dominated by linkage to the German economy. Due to the high openness of the economy, the crisis has significantly affected the rate of growth of country's performance and caused a drop in demand, a decrease in both production and unemployment. High unemployment in this period was related to revenue shortfalls in the state budget and deepening of the budget deficit.

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**Keywords:** Labor market , employment , unemployment , global crisis

## Introduction:

Unemployment is one of the phenomena of our time . This is a natural consequence of the development of market economies associated with the globalization of the world economy based on free choice and democracy coupled with the need for labor mobility. It also reflects the cyclical development of the economy, but may grow into uncontrollable dimensions which is reflected not only in economic but also in social consequences . Slovak economy, as well as other European countries were affected by the financial and economic crisis, not only by increasing unemployment, loss of performance but also decrease of capability to create new jobs. Economists, among others such as J. Stiglitz, or K. Rogoff note that currently there are changes in the link between economic growth and employment.

## The global crisis and the global labor market:

The most important aspects occurring in the labor market and also the Slovak labor market is the difficulty in defining the link between national labor market and economic growth. It is preferable to define the total amount of demographic resources affecting overall employment. At the same time defining demand at a national level is problematic in terms of the total volume of the structure, as to the performance of transnational corporations. Most of the production of these big companies is no longer tied to the sales of the national economy, but is dependent on the development of global consumption. We can not assess the recovery of an economy only at national level because an important aspect to generate employment in the national labor market is the recovery of the global economy which leads to the growth of the global labor needs. Slovakia is a small market economy significantly tied to major

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<sup>7</sup> The report has been composed as a part of solution of research project VEGA number 338 with title: „Contradiction of Creating Human Capital in New Economy“ .

European economies dominated by the link to the German economy. Currently the recovering of Slovak economy is happening because German manufacturers's production was successfully placed on the Chinese market where the consumption increases as a result of the economic policy of the Chinese government. It turns out that the domestic consumption is loosing in importance, even though that up to now consumption growth in the German market has been an important stabilizing factor of the European consumption. Empirical estimates of the Slovak Ministry of Finance indicate that a one-percent growth in the German economy has an impact on the pace of economic growth in the Slovak economy by two percent. At the same time, the time lag of changes in the performance of the Slovak economy against the German was reduced from two quarters in the past to one quarter currently. The lesson learnt from the crisis is the knowledge that the process of economic recovery restores jobs considerably slower and more structured than in the past and this does not lead to a rapid decrease in unemployment and boost in domestic consumption. Currently, the focus of new jobs is shifting from partial professions towards cross-cutting and systemic professions which must give a comprehensive response to developments in a particular industry. The main reason for loss of employment is a long-term depletion of potential in economic sectors to absorb new labor force due to the increase in productivity. For example, in the United States today only about 0.5 % of the employed are in agriculture and about 13 % in the industry.

This trend is being helped by outsourcing of work to external suppliers and machines.

Another type of outsourcing to low-cost countries is only temporary and created jobs can be terminated depending on wage growth. These trends are irreversible, because labor productivity growth is necessary for a decent life. Historically a new sector has always emerged and absorbed the surplus labor, e.g.: agriculture, industry, services and state.

Currently, the new sector is unlikely to show up, as advanced economies have exhausted in terms of employment all four economic activities of mankind - food production, manufacture things, services and "doing nothing".

Outsourcing and offshoring started to significantly affect the link between production capacities, the national labor market and the overall action of transnational corporations in the global economy. Simultaneously there is a redefinition of the various forms of employment.

The objective is to minimize labor costs, which is understandable in terms of companies, but mainly to eliminate the obligation to pay taxes and social security contributions for workers and employers, resulting in a lack of revenues in the state budget and social security systems. It is additionally combined with moving company headquarters to countries with looser tax regimes and tax jobs in tax havens. Thus the following paradoxes are showing up more and more:

- Government support of business activities are primarily focused on large firms and is quite extensive, modified and structured. While small firms which are crucial for the formation of employment are in most cases left to themselves even if they are playing a significant role in the development of locally bound jobs. These companies have problems surviving the crisis period in the absence of venture capital and modification of tax systems, resulting in poor regional labor market and rising unemployment.
- Disparities in small regions between needs and resources of workforce now also appears to be problematic due to moving out of workers from distant regions as well as international mobility.

### **The labor market in the Slovak Republic during the global economic crisis:**

Slovak economy, as well as other European countries were affected by the financial and economic crisis, not only by increasing unemployment, loss of performance, but also by decrease in ability of Slovak economy to create new jobs.

Hours worked in 2009 declined significantly. Shortening of working time was achieved by flexible working hours, working time banking, shortened working time when Labour Office pays the employer and employee to a certain amount of social contribution for hours not worked. Adjustments in employment and hours worked led to a significant increase in labor productivity during this period. Young labor market participants were mostly affected by employment losses by up to 15 % in 2009, while employment of older workers has increased. The job losses were mainly related to the low and medium levels of education. Number of self-employed continued to grow even during the recession. Structural and cyclical factors are likely the cause of the growing trend of self-employment.<sup>8</sup>

Slovak economy during the global economic crisis found itself in the declining phase of the economic cycle. It was expected that even without the impact of the economic crisis, there would be a slowdown in economic growth. Due to the high openness of the economy the crisis significantly affected not only the rate of growth performance of the country but also a drop in demand, the decline in production and of course unemployment. High unemployment in this period is also related to revenue shortfalls in the state budget and deepening of the budget deficit.

In 2009, after Slovakia joined the euro area, fiscal policy became a major instrument affecting the economy. In particular, an increase in expenses, therefore expansionary fiscal policy is the main instrument for the stabilization of anti-crisis measures in order to maintain economic stability and keep public finances. The Government has adopted a fiscal strategy to maintain these goals.<sup>9</sup>

2010 was a year of parliamentary elections in Slovakia. European Commission has adopted an economic strategy " Europe 2020 " , under which participating countries have agreed , inter alia, to increase employment to 75 %. Consequently, these countries are taking action in their national labor market policies. Aftermath of the crisis and process of fulfilling the requirements of the strategy are expected to help to grow European economies. Still, some questions remain unanswered - influence and impact of certain factors on tackling unemployment in the Slovak Republic. " The current problem is when the primary objective is becoming the reduction of the government deficit, then you can not count on job creation through public sector. "<sup>10</sup>

While the decline of the production caused by the economic crisis lasted one year (until the first recession in the last quarter of 2009), the fall in employment lasted a little longer and post-crisis resumption of employment occurred at the end of 2010. Already during the whole of 2011, employment grew, albeit at a slowing pace. Likewise, in 2012, employment growth rate (rate compared with the previous year was even lower) gradually declined, and finally in the fourth quarter came stop in two year long employment growth. In 2013, the unemployment rate fell only slightly and remained at around 14 %. Slow process of recovery in employment, which started in 2010, came to a halt - current employment did not even come close to pre-crisis levels.

Employment after the recession in 2009, reflected the rebound in the economy and the recovery of production with about three quarters of a year's delay due to a slowdown in the product (or output and value added ) in 2011 and with unchanged elasticity of employment a subsequent downturn in its growth or even fall was to be expected. The picture of the size of the fall in employment at the end of 2012 illustrates the fact that the decrease in the number of workers below the level of 3.2 million workers occurred since 2006 only once, immediately

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<sup>8</sup> OECD 2010

<sup>9</sup> STOLIČNÁ, Z. 2012. Dlhová kríza a protikrízové opatrenia. In *FIN STAR NET 2012* : zborník recenzovaných príspevkov z III. medzinárodnej vedeckej konferencie. Bratislava : Vydavateľstvo *Fin Star*, 2012. ISBN 978-80-970244-5-1,

<sup>10</sup> STANĚK, P. 2010. Globálna kríza – hrozba alebo výzva? Bratislava : Sprint 2010. s. 155/219. ISBN 978-80-89393-24-4.

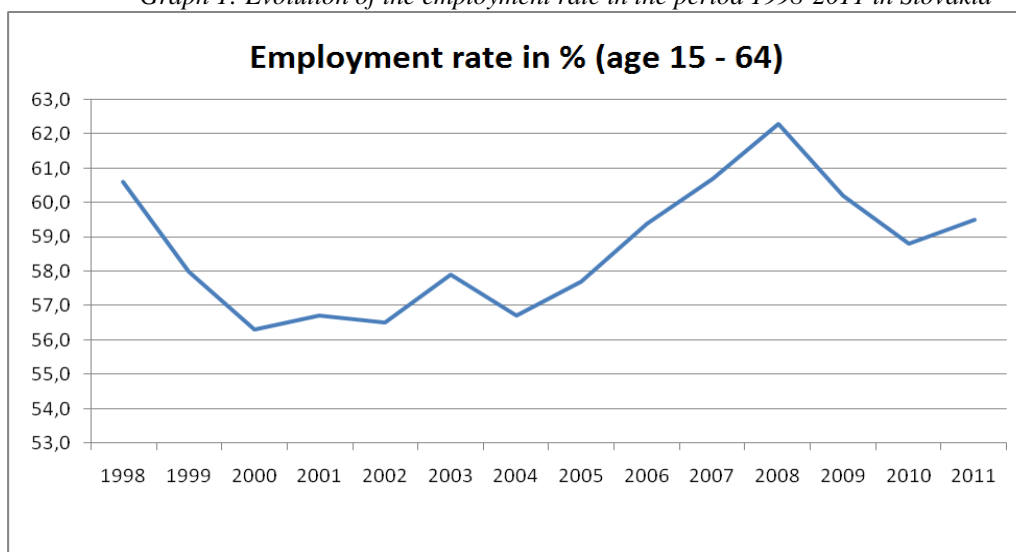
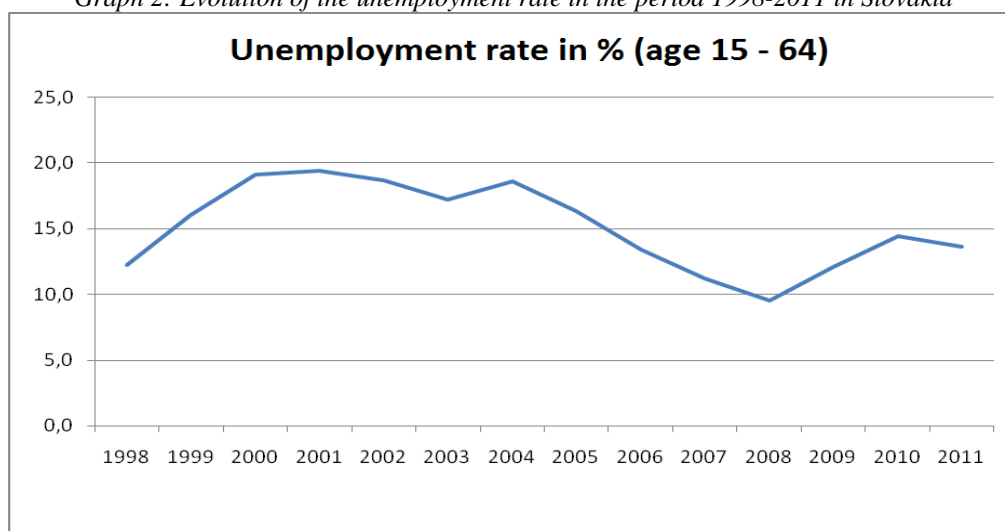
after the recession, therefore 1st quarter of 2010. In 2013, employment stagnates, respectively declined by about 1 % in 2012. Unemployment still maintains at about 14 %.

Pronounced deterioration in employment at the end of the year can be linked with the negative impact of approved legislative changes affecting labor relations and labor costs . The amendment to the Labour Code (adopted in October with effect from 1 January 2013 ) tightens the definition of dependent work (to prevent substitution of employment contracts with other flexible agreements, contractual forms), increases the cost of the employer (restores concurrence of the notice period and severance pay, in conjunction with the amendment of social insurance increases social cost, compounded by the first stated change - attempts to prevent the circumvention of using contracts under the Civil Code or hiring self-employed to work in the nature of paid employment) and reduces flexibility in certain decisions of the employer (repealed to agree the length of the probationary period beyond the statutory standard, reduced maximum time to conclude fixed-term contracts even with possibility of renewal and restoration, strengthening the employment of agency staff, strengthening the provisions on working time, etc.). Legislative changes leading to higher costs for hiring and firing and less flexibility in labor relations should lead to the fact that the company prepared and any planned ( or unplanned ) downsizing implemented even by the standards in force for 2012.

Active employment policy in Slovakia is not sufficiently evaluated and its impact on labor market remains unclear . Among the 29 existing programs in 2011, only 22 were actually used, and of these only 12 involved more than 1,000 participants. Among the 400,000 registered unemployed only 123,456 candidates are participating in AEP programs. ( World Bank, 2012).<sup>11</sup> In the graphs we can see the evolution of employment and unemployment in Slovakia between 1998 and 2011. Since 2000, we see an increase in employment, pending the impact of the economic crisis in 2008, when the employment rate begins to decline. Since 2010, the employment rate began to increase slightly in 2011 reached 59.5 % in the category of people 15 to 64 years. In the framework of the Europe 2020 objectives achieved Slovakia in 2011 the value of 65.1 % of employed aged 20-64. The aim of Slovakia is the value of 72 % compared with Strategy's aimed value of 75 %, a desired increase of almost 10 %. Within the next chart we see that in 2001 the unemployment rate has seen a slightly upward trend, but from that year until 2008 it gradually fell to 9.5 % , which represented a record low for Slovakia. From this period, however, unemployment is rising again and in 2011 it came to a level of 13.6 %.

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<sup>11</sup> World Bank. 2012. *Protecting the Poor and Promoting Employability, An assessment of the social assistance system in the Slovak Republic*, Washington, DC : World Bank. 2012. Dostupné na <<http://employment.gov.sk/protecting-the-poor-and-promoting-employability-an-assessment.pdf>>

*Graph 1: Evolution of the employment rate in the period 1998-2011 in Slovakia**Source: autor, Eurostat database**Graph 2: Evolution of the unemployment rate in the period 1998-2011 in Slovakia**Source: autor, Eurostat database***Conclusion:**

The most important aspect occurring in the labor market and also the Slovak labor market is the difficulty in defining the linkage between national labor market and economic growth. It is preferable to define the total amount of demographic resources affecting overall employment. Slovak labor market was significantly affected by the global financial and economic crisis. The unemployment rate has increased gradually since 2009. Gradual recovery in the labor market noticeable in the years 2010 - 2011 has stalled and the results of the year 2012 were rather embarrassed: weak year in terms of employment growth and vice versa - increase in the number of unemployed especially towards the end of the year. The year 2013 was characterized by large-scale adoption and changes in legislation on employment associated with more negative expectations that match certain groups of public sector employees for better ( not just salary ) conditions.

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## **SOME DETERMINANTS OF ECONOMIC DEVELOPMENT IN SOUTH CROATIA IN THE INTERWAR PERIOD: DUBROVNIK AND KORČULA DISTRICTS CASE**

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### **Abstract**

The paper examines the territorial changes that have affected Dubrovnik and Korčula districts between the two world wars, as well as some characteristics of the economy in this area. By becoming a part of the Kingdom of Serbs, Croats and Slovenes, southernmost Croatia was further isolated from the European core, and thus from modern economic trends. Therefore, the dominant Dalmatian agrarian economy with its lagging traditional system known as 'settlers', with its extremely divided land property, prevented competitiveness of agricultural products in the new market conditions. At the same time, a high proportion of workers in agriculture, a lack of skilled labour and a high illiteracy had significantly reduced the possibilities of the workers being the source of economic growth; which together with a lack of capital and technological progress restricted economic development in southern Croatia. Analyses of the structure and the cultivation of land in the Croatian far south indicates the reasons for an inclination of the population towards service industries in the districts of Dubrovnik and Korčula, which has been preserved in the structure of the economy today.

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**Keywords:** Croatia, Dubrovnik district, Korčula district, interwar period

### **Introduction:**

The Croatian lands which were formerly part of the Austro-Hungarian Empire found themselves within the new interwar Yugoslav state. Thus, the southern part of the former Austrian province of Dalmatia which was in the 1920s divided into Dubrovnik and Korčula districts became a part of the Zeta Banovina in the 1930s. Political changes in 1918 established the emergence of a new state territory which, by its size and economic strength, greatly deviated from the earlier Monarchy which was oriented towards Central Europe.

Strong trade links with Central Europe, Vienna and Budapest were destroyed. Overnight, the most backward parts of the former Austro-Hungarian Empire became an economic leader in the new state union. Those changes in the political and economic framework of the Croatian territory were reflected in the economy of the districts of Dubrovnik and Korčula.

Economic growth and increase in gross domestic product of a country is the quantitative side of economic development, which depends on four main factors: natural resources, population, capital and technology. This paper aims by analysing the indicators: the structure and the cultivation of land as part of natural resources, and the basic characteristics of the population as a source of economic growth of the Croatian south, to provide insight into economic conditions and opportunities in Dubrovnik and Korčula districts in the interwar period. In this paper, after discussing the territorial changes in Dubrovnik and Korčula districts in the interwar period; the structure and cultivation of land with the basic



characteristics of the population of Dubrovnik and Korčula districts are analyzed according to the 1921 and 1931 official censuses of interwar Yugoslavia.

### **Territorial changes in Dubrovnik and Korčula districts in the Interwar period**

Former districts of Dubrovnik and Korčula are the territory of present day Dubrovnik-Neretva County without the island of Lastovo and the Lower-Neretva region, i.e. the area of Ponta Oštro in Konavle to the tip of Pelješac peninsula with the interior to the Croatian border, Elaphiti Islands and the islands of Korčula and Mljet. This territory covers 1,315 km<sup>2</sup> of the most southern Croatia which can be divided into two parts – physically almost completely separated: on one side the Dubrovnik coastal area, the Elaphiti Islands with Šipan as the largest (17 km<sup>2</sup>), the urban agglomeration of Dubrovnik, Župa Dubrovačka and Konavle; and on the other side Pelješac peninsula and the islands of Mljet (98 km<sup>2</sup>) and Korčula (273 km<sup>2</sup>) (Ilustrovani zvanični almanah šematizam Zetske banovine, 1931, p 54; Naša zemlja priručna enciklopedija Kralj. Jugoslavije, 1938, p 11).

The furthest parts of the Croatian territory under Austrian rule until 1918 became a part of the province of Dalmatia, and then in 1929 they became a part of the Zeta Banovina based in Cetinje (Banovina Zetska opšti pregled, 1931, p 6). Dubrovnik and Korčula districts never existed as single administrative-territorial units, but were parts of the Austrian province of Dalmatia, whose most southern part was the Bay of Kotor with Dubrovnik as the county centre. After the regulation on dividing the land into districts in the Kingdom of Serbs, Croats and Slovenes, Dubrovnik became the centre of the Dubrovnik area made up of districts: Dubrovnik, Korčula, Metković and Makarska. With the Vidovdan Constitution article 135, a part of the Bay of Kotor almost up to the city of Bar was seized from Dalmatia; this territory had been its part before entering the Kingdom of SCS (Boban, 1995, p 20; 24). Because of the provisions of the secret Treaty of London of 1915, when Italy was promised a significant territorial compensation for entering the war on the side of the Allies, Italy occupied a large part of the Croatian coast. The islands of Mljet and Korčula remained under Italian rule until the withdrawal of Italian troops (after signing the Treaty of Rapallo in 1920), while the borders of the districts of Dubrovnik and Korčula were subject to change. Thus, for example, municipalities Janjina, Kuna, Trpanj and Orebić on the peninsula Pelješac, which had been under the administration of Korčula, were moved under the rule of the District of Dubrovnik, which violated the corresponding quantitative indicators in the districts of Dubrovnik and Korčula. With the reorganization of the state in 1929, Dubrovnik and Korčula districts were re-united with the Bay of Kotor and its entire former territory all the way to Bar, but as a constituent of Zeta Banovina with its centre in Cetinje. The Bay of Kotor, formerly a part of the province of Dalmatia in the Monarchy, and a part of the Zeta Banovina in the Kingdom of Yugoslavia, is today the territory of the Republic of Monte Negro.

The above mentioned changes are reflected in the changes of the Dubrovnik district territory: in 1921 – the district measures 775m<sup>2</sup>; in 1931 – 788km<sup>2</sup>, and in 1940 – 1,039 km<sup>2</sup> (Ilustrovani zvanični almanah šematizam Zetske banovine, 1931, p 54; Godišnjak banske vlasti Banovine Hrvatske 1939 - 26. kolovoza 1940, 1940, p 44).

Variable territorial and administrative divisions inherent to Croatian territory, traffic isolation and an inconsistency in administration and governing all had a bad effect on the economic development of Dubrovnik and Korčula districts. It is an agricultural area whose population lived from agriculture and had an outdated system of the 'settlers' which is present in the far Croatian south from the early Middle Ages. On the territory of the former Republic of Dubrovnik a special form of feudal relations were developed, a so-called *Dubrovnik serfdom* under which the serfs often gave the nobility half of their total yield. Such a contractual relationship between the landowner and the tenant was later replaced by cash rent which was preserved in the first decades of the twentieth century (Šimončić-Bobetko, 1997, p 78).

### **The structure and cultivation of land in the Dubrovnik and Korčula districts**

Most of land in the district of Dubrovnik and Korčula (1,315 km<sup>2</sup>) is mountainous, while only 19.77% is arable land scattered in several karst fields, bigger ones being in: Konavle, Zupa, Ston, Blato and Pelješac. Basic soil characteristics are karst landforms covered by red, loose soil which provides the vegetation with needed moisture in the summer. Water supply is one of the basic preconditions for the development of agriculture. Water resources and the main water streams come from the biggest river in these parts Rijeka Dubrovačka, from Ombla and from numerous smaller river sources: Ljuta in Konavli, Duboka Ljuta in Župa Dubrovačka and Plata in Zaton Mali. The Dubrovnik coast, Pelješac peninsula, the islands of Korčula, Mljet and Elaphiti are poor in water sources.

In the areas of Dubrovnik and Korčula districts in the early 20th century, according to data from 1900; there was a total of 131,567 hectares of land – but only 25,993ha was cultivated, which means only 19.76%, far below the average for Croatia. Regarding southern Croatia, more cultivated land was in Dubrovnik (14,662ha), and less in Korčula District (11,331ha). Considering the structure of 25,993ha in the districts of Dubrovnik and Korčula, this cultivated land comprised gardens (10,200ha), vineyards (8,954ha), ploughed fields (6,816ha) and meadows (23ha) (Medini, 1930, p 67). Such a small share of meadows indicated a high level of utilization of arable land since most included gardens, vineyards and ploughed fields.

The structure of the cultivated land points to variety. Gardens (5,958ha) dominate in the structure of cultivated land (14,662ha) in the Dubrovnik district; next come the ploughed fields (5,827ha), vineyards (2,854ha) and meadows (23ha). In the first place in Korčula district with an absolute advantage in the proportion of cultivated land (11,331ha) were vineyards (6,100ha), followed by gardens (4,242ha) and ploughed fields (989ha) (Medini, 1930, p 67) .

Comparison of cultivated land in the considered districts of the early twentieth century, which did not change much in the next twenty years, with the number of households, which, according to the 1921 census upon entering the new state, was 13,855; we get 1.88ha of cultivated land per household: in Dubrovnik 0.38ha and in Korčula district only 0.4ha (Prethodni rezultati popisa stanovništva u Kraljevini Srba, Hrvata i Slovenaca 31. januara 1921, 1924, p 160). So little arable land per household indicates that agriculture could not have been a sufficient economic basis for an average rural household in the interwar period, especially if we take into account the quality of the soil, cultivation methods and the climate. Furthermore, the unfavourable ratio of households and arable land indicates that production greatly lagged behind the demand for agricultural products, and that the labour force remained unused due to lack of arable land.

Overpopulation of the Dubrovnik and Korčula districts, in relation to cultivated land prevented sufficient production of basic needs for household members, forcing the peasant population to go searching for a better salary or flee their homes. Ten years later in 1931, the structure of land estates in the two districts showed absolute domination (over 50%) of small farms (0-2ha). Given the size of the population it was necessary to increase the arable areas or leave the agricultural industry. Although the Dalmatian farm workers used all their efforts to cultivate the soil in the karst landscape, overpopulation depending on agriculture with not enough arable land forced the population into the city, whilst the majority emigrated. It was this high degree of agricultural overpopulation that affected emigration overseas. However, emigration reduced in the period of the Great Depression that began with the collapse of the New York stock market on October 29<sup>th</sup> 1929, (Black Tuesday), and affected the economy of the Kingdom of Yugoslavia in 1930, when the crisis brings a high number of immigrants back to the country.

Small farms in southern Croatia grew and bred products needed for living, while taking the surplus to the market. At the same time, large farms in Slavonia had their markets well profiled and were focused on growing only particular products, either crops or livestock, in

the period immediately after World War II when the agricultural products achieved a high price and were in demand on the European market. South Dalmatian agricultural production was doomed to produce odds and ends, grow more crops and be prepared for rapid market adjustment. The working conditions of the poor farmers were extremely modest: no tools, no required fertilizers and no animals to pull the carts because, due to the agrarian overpopulation, production was improved only through cheap work of the large workforce. Viticulture was not profitable due to grape diseases (peronospora and phylloxera), but also extremely unfavourable government policies towards viticulture that continued from Austrian bias against Croatian wines (aka Wine clause from 1893, which enabled the import of cheap Italian wine). Villagers were forced to divert to olive growing and production of pyrethrum or other industrial plants.

### **The basic characteristics of the population as a source of economic growth**

Since the population, or rather the labour force, together with the given natural resources, the capital and the technological progress, is the fundamental source of economic growth, the basic characteristics of the population in the analyzed period will be observed below.

Between 1900 and 1948, the population in the districts of Dubrovnik and Korčula was reduced by 0.09% compared to the beginning of the century; from the initial 66,906 inhabitants in 1900, their number had fallen to 66,849 inhabitants half a century later – census 1948 (Korenčić, 1979, p 90). A reduction and general stagnation of the population growth in southern Croatia was not only a consequence of the First World War that took place in this period, but also in the traditional economic neglect of the south as well as poor agricultural policies. It is, above all, the backward agrarian land relations in which labourers or tenants of the country (traditionally called ‘settlers’), were exposed to conflicts with landowners, which then caused migrations of the rural population. Although the agrarian reform granted the farmer leaseholder the right to the land which he was cultivating, farmers became true owners only in 1931. The conflicts over possessory relations were often encouraged for political reasons. The farm working population was backward, partly literate, poorly fed, in impossible health conditions and terrified of the brutal nature which would destroy in an instant what they had toiled for the whole year.

Agriculture as the main branch of the economy in the interwar period did not have the necessary government support, and as a result, it regressed due to primitive cultivation and low productivity, the difficulty to market agricultural products, and due to natural disasters (drought, hail, and severe cold like the one in winter 1929) and diseases on agricultural crops (peronospora and phylloxera on grapes). Connecting Gabela by railway to the Bay of Kotor with a connection to Gruž significantly increased connectivity of the hinterland with the Croatian south and ensured new jobs in Dubrovnik.

The most substantial loss of population in the 20th century in the districts of Dubrovnik and Korčula was recorded in the period between the 1910 and 1921 censuses when there was a decrease in population – as many as 1,152 people (Korencic, 1979, p 90). The loss was primarily contributed to the First World War, and then to epidemics, famine and emigration overseas. The negative trend was stopped in peacetime from 1921 to 1931 when immigration into the United States was stopped; the number rose by only 2,265 inhabitants. However, if we neglected the decrease in population in the first 20 years of the last century, an actual increase in the 30-year period was only by 1,063 inhabitants compared to the list from 1900, which corresponds to an average growth of 34.29 inhabitants per annum.

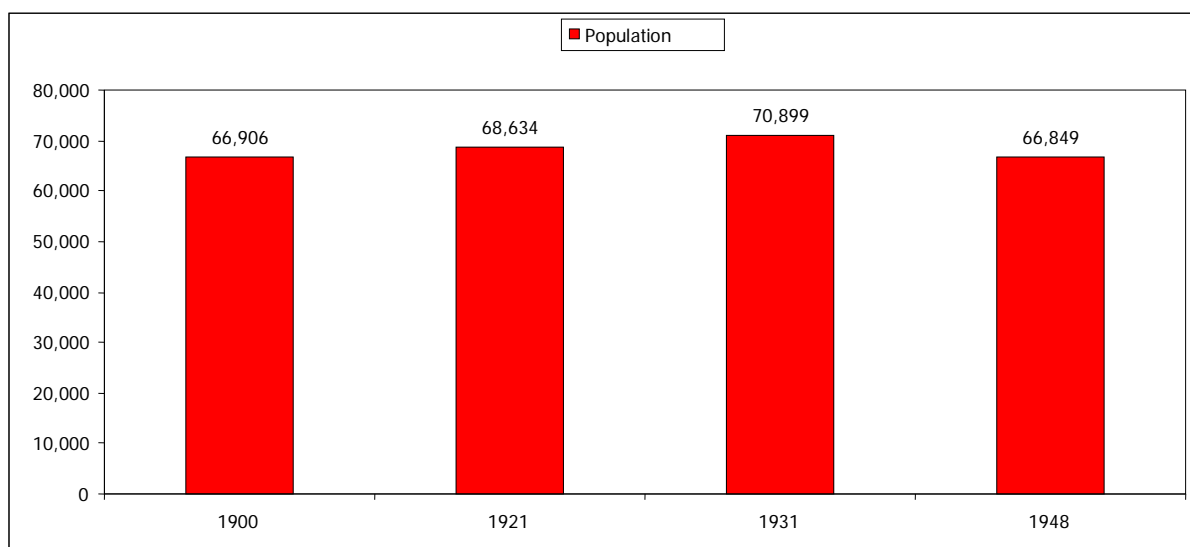


Figure 1 – The population of Dubrovnik and Korčula districts in the first half of the 20<sup>th</sup> century

If we compare population numbers from the 1948 census with those in the first half of the 20<sup>th</sup> century, we see that the number of 66,906 inhabitants in 1900 drops down to 66,849 in 1948. Thus, in 48 years the number of inhabitants decreased by 57 (Figure 1). Therefore, in the first half of the 20th century (minus two years), the population of Dubrovnik and Korčula districts did not significantly exceed the number reached in 1900, whilst it was considerably smaller than in the first thirty years. The two world wars had certainly scarred the demographic image, yet equally pernicious for this area was emigration. Changes in the total number of the population are followed by changes in the structure of the population. According to the 1921 census, 38,251 residents lived in Dubrovnik district and 28,354 in Korčula district (Definitivni rezultati popisa stanovništva od 31. januara 1921. god., 1932, p 246; 248).

Concerning gender structure, women dominated due to poor living conditions and migrations in search for work of the male population. The First World War brought about a high mortality of men, which together with emigration of mostly the male population, was the main reason for the high rate of femininity. Biological structure is a direct indicator of the vitality and dynamism of the population and also strongly affects economic development, and every irregularity of the age structure of the population has fatal consequences for the future.

A new category of ‘jobs’ was introduced in 1931 census, enabling a reconstruction of population employment according to individual industries. Femininity, as a newly present guideline, was dominant in a large number of agricultural households in Dubrovnik and Korčula districts.

Table 1 Employment by sector in 1931

Sector	Dubrovnik district	Korčula district	Total
Agriculture, forestry and fishing	17,057	9,008	26,065
Industry and crafts	2,853	922	3,775
Trade, transport and banking	2,371	420	2,791
Civil service and military	2,429	437	2,866
Other employees	2,701	338	3,039
Total	27,411	11,125	38,536

Source: Definitivni rezultati popisa stanovništva od 31. marta 1931. godine knjiga IV, 1940, p 318; 319.

According to the 1931 census, there were 70,899 inhabitants in southern Dalmatia; in Dubrovnik district 50,201, in Korčula district 20,698. There were 38,536 employees, which meant that 32,363, or 45.6%, were supported. Of the total number of employed, most were employed in agriculture, forestry and fishing (67.44%), followed by industry and crafts

(9.80%). Considerably more were employed in civil service and the military, than in trade, transportation and banking.

Figure 2 shows the structure of employment by economic activity, which coincided with the structure of the economy in Dubrovnik and Korcula district. According to the census official data, a tenth of the population was employed in industry and crafts, although a significant portion of these workers were in hospitality and catering, which were not treated as a separate category. Industry never had a significant foothold in these parts of Croatia, and traditional orientation towards the sea and shipping was in the early 1930s complemented by the development of tourism, which was far more pronounced in the city of Dubrovnik and its surroundings than in the rest of southern Croatia. The peculiarity of this new activity was a large proportion of human labour so that labour-intensive industry offered great opportunities of employment for both the male and female population.

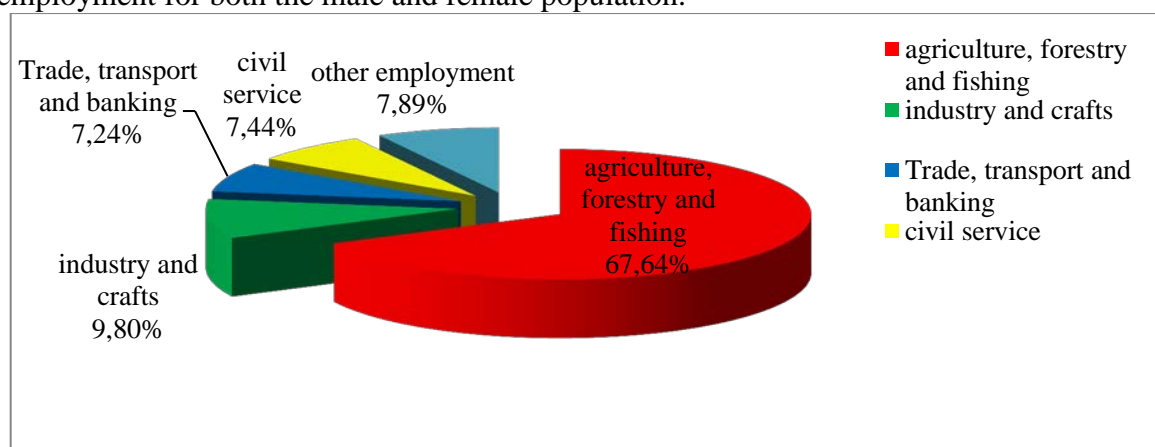


Figure 2 Employment of the population of Dubrovnik and Korcula districts by activities on March 31st 1931

The absolute majority of the population (total 46,323) lived from farming and fishing, and that was in the districts of Dubrovnik 30,004 and Korcula 16,319. The bulk of this number consisted of independent farmers and tenants (8,269), clerks and employees (15), workers (298), labourers and servants (1,380), apprentices (2), family members (16,081), and house servants (20). There were 20,258 dependent family members in agriculture, forestry and fishing (Figure 3) (Definitivni rezultati popisa stanovništva od 31. marta 1931. godine knjiga IV, 1931, p 318; 319). Economic crisis had caused the workforce to put pressure on the city which was also entering a period of crisis. There was not enough grain for food in the village, so the majority lived from viticulture or growing olives with no opportunity for retraining or getting employment outside of agriculture.

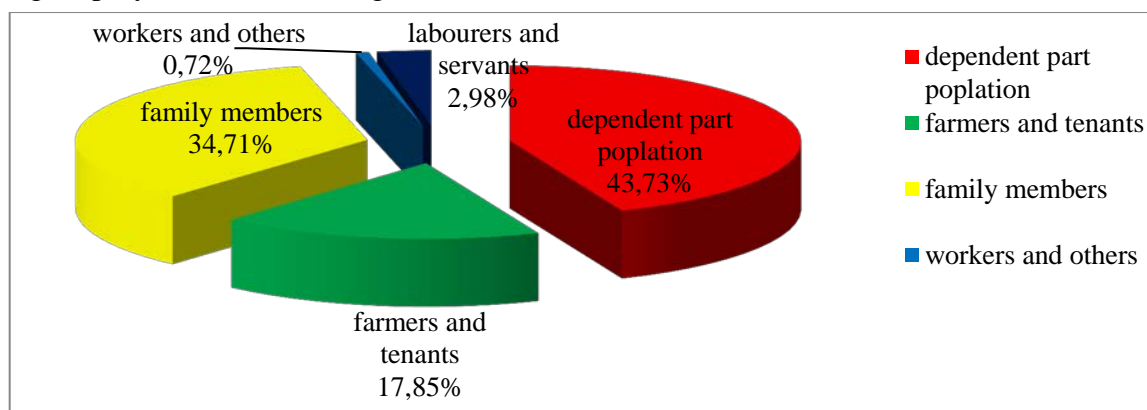


Figure 3 The structure of the population of Dubrovnik and Korcula districts oriented on agriculture, forestry and fishing March 31st 1931

By comparing the ratio of employed women (15 676) to employed men (22 860) there was an absolute dominance of the male working population. However, the ratio of people employed was 40.68% women and 59.32% men, which is a good indicator if we consider that in Croatia in 1935 there were only 46 female workers out of 100 employees. This presence of women did not happen due to the changed position of women in an advanced society, but as a consequence of poverty and poor living conditions which forced women to work. Industry was practically nonexistent; the majority of women worked in agriculture because of a large drain of male members, and a great employment opportunity appeared with the rise of a new industry – tourism.

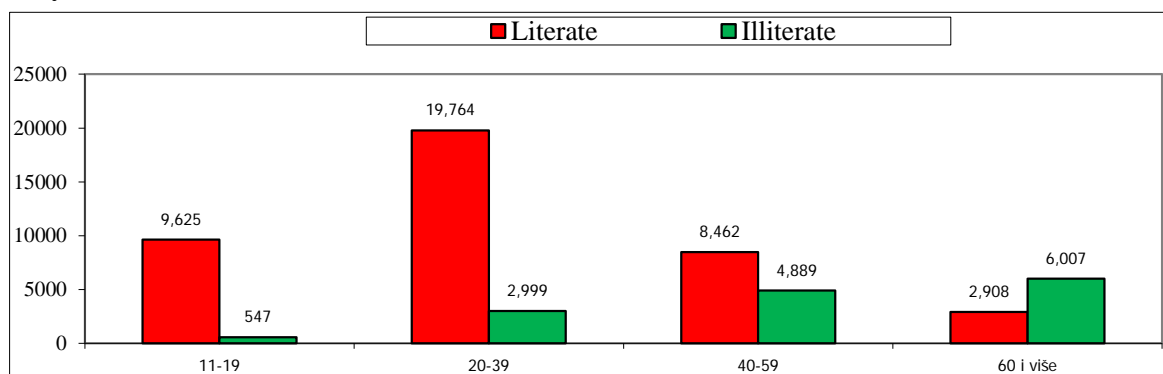


Figure 4 The ratio of literate and illiterate by the age structure in the area of Dubrovnik and Korcula districts in 1931

In the age structure of the population in 1931 in the districts of Dubrovnik and Korcula, a dominant share of the population between the ages of 20 to 39 can be observed. Illiteracy is prevalent with the older population (Figure 4) (Definitivni rezultati popisa stanovništva od 31. marta 1931. godine knjiga III, 1938, p 70; 122). Thus, in the age group from 11-19, there was an illiteracy of 5.38%, from 20-39 it was 13.17%, from 40-59 years 36.62%; while the population of 60 years and above was 67.38% illiterate. A higher ratio of a literate working-age population opened more employment opportunities in tertiary industries: in transport, trade and tourism in particular.

## Conclusion

This paper deals with the present territory of Dubrovnik-Neretva County, without the island of Lastovo (which was under Italian rule) and without the Lower Neretva valley. Dubrovnik and Korčula districts were never a separate administrative-territorial entity: under Austrian rule they were within the province of Dalmatia, in the Kingdom of Serbs a part of the Dubrovnik and Zeta region, and after 1929 re-united as a part of the Zeta Banovina based in Cetinje. Variable territorial and administrative division of south Croatia in the interwar period affected the economy and the lives of residents.

Within the natural resources as a source of economic growth and development, lack of arable land reduced to a few karst fields (Konavle, Zupa, Ston, Blato and Peljesac) had an impact on the structure of the property where small farms using inappropriate techniques absolutely dominated thus precluding significant development of agriculture. Therefore, agriculture could not be a sufficient economic basis, taking into account the quality of the soil, the climate and the manner of cultivation, while the government taxes and levies further exacerbated the already impossible circumstances.

The interwar period was marked by drastic emigration of the most vital and productive part of the population, particularly from the island of Korcula and Peljesac peninsula. The outdated system of 'settlers', crisis in viticulture, agrarian overpopulation, civil negligence and delay in land reform, lack of money, lack of marketing agricultural products as well as uncompetitiveness in pricing, forcing the Dalmatian peasants to emigrate. Poverty and

indebtedness in the villages of Dubrovnik and Korcula districts grew due to falling prices of agricultural products, lack of money, expensive credits and thriving usury, while the state ignored the needs of the village and rarely intervened.

Leading in the structure of the economy, despite a poor natural basis, was agriculture which employed over two-thirds of all workers, followed by industry and trade with nearly a tenth of employees. A relatively high proportion of employees in the civil service and the military is notable. Furthermore, a high share of employment in agriculture, a lack of skilled labour and high illiteracy rates significantly diminished the possibilities of the workforce to be the source of economic growth, which with the lack of capital and technological progress restricted the economic development of south Croatia. Analyzed structure and cultivation of land in far south Croatia suggests reasons why the population was concentrated in service industries in the districts of Dubrovnik and Korcula, which is preserved in the structure of the economy today.

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# THEORETICAL FRAMEWORK FOR USING RESOURCE BASED VIEW IN THE ANALYSIS OF SME INNOVATIONS

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## Abstract

The objective of this paper is to present a Resource based view of a firm as a valid conceptual framework for the analysis of SME innovativeness. This paper may serve future studies aiming at devising a methodology for estimation of the connection between resource categories of various enterprises and the implementation of innovation and growth in small and medium enterprises. Authors provide a thorough literature analysis and propose their own categorization of firm's resources. Moreover, a critical review of innovation indicators and their congruency with research aims is provided within the paper.

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**Keywords:** Resource based view, SME, innovations

## Introduction:

Alongside with the changes taking place in world economics, that may be regarded as the end of industrial era and the rise of knowledge economics, a prominent place in business administration literature of USA and Europe is held by Knowledge-Based Approach as a part of the Theory of the Firm. By this approach the role of an enterprise is clarified, in the ability to decrease the costs for information accumulation and knowledge procurement that would be much higher if incurred to an individual. Enterprises are figuratively compared to living bodies that grow and learn by the *Knowledge-Based Approach* as well as *Knowledge Management* related literary sources. Such approach is in fact a logical continuation of *Resource-Based View*, by which an enterprise is conceptualized as a unique packet of resources where the most important short-term competitive strength factors are its knowledge and capability or competence summation. *Knowledge-Based Approach* is used by literary sources in order to understand and estimate innovation implementation processes and their consequences in entrepreneurship. Although *Resource-Based View* and a derivative *Knowledge-Based Approach* were emerged from management studies referred to corporate management and large multinational organizations, some authors used later the theoretical conclusions of these concepts also in connection with management issues in small and medium-sized enterprises in the context of innovation implementation processes in these companies. It is supposed also by the authors of this paper that both *Resource-Based View* and a derivative *Knowledge-Based Approach* are utilizable in innovation analysis of small and medium-sized enterprises, but notable restrictions must be concerned proceeding from the transferal of the approach to an essentially distinctive research object.

Enterprise resources are analysed by the authors within a conceptual framework of *Resource-Based View*, by which the most important enterprise resources are considered to be those that ensure enterprise innovative activities contributing consequently to long-term competitive strength. In such a manner not the material resources and their availability are under the focus, but enterprise special competences, that are defined by scientific literary sources as the ability to produce innovations, observe commercial opportunities, produce new knowledge on the basis of the existing database etc.



## **Enterprise resources as the factor affecting growth and innovation**

In recent years an increasing criticism of neoclassic economic theory based on inability of a traditional model to clarify the complicated economic processes and enterprise development lines and different tempo rates within the frame of one field is revealed by foreign business administration literary sources. In the last couple of decades an observable progress is noted in the development of the Theory of the Firm. The paradigm of neoclassic economics under which an enterprise is considered as a „black box” and its processes are not conceived to be worthy of respect, is substituted by new, inter-disciplinary approaches trying to obtain a response to questions on enterprise existence targets, to explain the diversities in enterprise behavior as well as considers enterprises as living bodies that can learn and grow (Foss, 2006; Casson, 2005). This new approach suggests a different way of investigation of entrepreneurship system as opposed to entrepreneurship systems reviewed by traditional economic publications - those are focused on material goods and money flows between production enterprises while the new approach pays attention to information and knowledge flows.

Under the Theory of the Firm the *Resource-Based View* was produced in which an enterprise is defined as the summation of strategically important resources assisting in determination of advantages of long-term competitive strength and executed work of different enterprises in one field, owing to unicity and irreplaceability of these resources. Initially this approach was developed in strategic management field, but later it gained popularity also in other subdivisions of business administration studies, such as organizational behavior, international business etc. *Resource-Based View* is often related to social capital and innovation theories since the analysis of social network becomes one of the most important estimation tools in the last decades for enterprise growth and competitive strength as well as innovation (Uzzi, 1997; Gulati, et al., 2000). The further development of *Resource-Based View* is rewarded by success on theorization of *Knowledge-Based Approach*. An enterprise is conceptualized under *Knowledge-Based Approach* as a tool with which individual knowledge is transformed to market demanded goods and services. Here the integration of existing or newly produced knowledge of an enterprise becomes the most important task of a manager.

*Resource-Based View* is one of the various conceptions for strategic management which makes an attempt to clarify the background of enterprise existence as well as its various occurrences in broader outlines of the Theory of the firm. The adherent scientists of the Theory of the Firm developed their conceptions build on the work of *Edith Penrose* who was the first to observe that company dependence on resource availability may differentiate significantly in the range of even a single field. In addition, a very broad layer of productive resource definitions was devised by her, including such factors as senior management teamwork abilities, entrepreneurship capability, ability to observe benefits of implementation of a new product or service. In her book „*The Theory of the Growth of the Firm*” (1959), growth of an enterprise is claimed by *Edith Penrose* to be dependant on realization and utilization of the resources. Consequently, an enterprise conception may not be reduced to a single production function and enterprise processes may not be considered only as a response to market situation. Quite the contrary, a company growth is claimed by the author to stem from a totality of management decisions that originate from the resources being at company disposal in return. Therefore, an enterprise growth is largely determined by company manager experience and information accessibility as well as by available resources of an enterprise that serve as a basis for further strategies and line of activity.

In the following years Penrose’s conception was developed in two interrelated approaches - *Resource-Based View* and *Knowledge-Based Approach*. The development of *Resource-Based View* was carried out with an emphasis put on identification and grouping of resources themselves, while *Knowledge-Based Approach* was moved forward making an attempt to estimate the most applicable methods of organizational resource management,

organizational structure to prompt innovation and learning, the role of a manager and allocation of decisive rights, processes of implementation of innovations and knowledge both internally and externally.

On the basis of both theoretic conceptions, enterprise growth is affected rather by internal accumulation of knowledge than by external one on the market or in society. It is suggested under these approaches that enterprise competitive strength is affected by the position of enterprise resources rather than enterprise market position, which is confirmed, for example, by the model of Porter five forces analysis.

### Resource typology

The origination of resource typology was encouraged by further development of *Enterprise Resource-Based View*. It became possible to group various resources and test those as factors affecting enterprise activity, to compare their impact with the impact of external environment factors etc. However, the utilization of varied terminology denominating, in fact, the same notions, is observed in scientific literature sources as well as sometimes, quite the opposite, denominating different resource categories by same terms.

*J. B. Barney* and *A. M. Arikan*, who are among the most prominent authors started latterly the discussion within the frameworks of *Resource-Based View*, do not further break up into categories. They suppose the exposition of *Resource-Based View* conception to be perplexed by this since it is considered necessary by every researcher to implement a new resource classification and to denominate by new words. As a result, distinctive publications and research projects on resources, competencies, capabilities, dynamic capabilities and knowledge originate.

The notion of resource is comprehended by other authors in the model of *Resource-Based View* as the summation of all enterprise capabilities – both financial and non-financial in their classic interpretation (considering e.g. buildings and capital as financial resources and licences and trademarks under non-financial resources), as well as enterprise abilities to maintain these resources, and knowledge about market, enterprise products and services etc. (Eriksen, Mikkelsen, 2006; Ray et al., 2004)

On the basis of the postulates of *Resource-Based View*, that consolidate the most important enterprise resources to be those that are difficult to imitate and replace, it may be concluded that the basis of the advantages of long-term competitive strength is formed by those resources that are related to the knowledge rather than information (which is comparatively easy to obtain and port with up-to-date information carriers). Therefore, enterprise competences build the most important enterprise resource group since they form exactly the sensitivity of an enterprise to variable conditions of the environment and make it produce innovations, consider new business opportunities etc.

The next line for the development of *Resource-Based View* utilizes the notion of *dynamic capabilities* or *absorptive capacity* stressing the ability of developing new competences as the most important enterprise characteristics in today's changeable environment (Treece, Pisano, Shuen, 1997; Eisenhardt, Martin, 2000). In addition to this resource category in *Resource-Based View* the knowledge conception is integrated (Gold, Malhorta, and Segard, 2001; Canter, Joel, 2007). *Knowledge management* and *Knowledge Based View of the Firm* are separate branches based on *Resource-Based View* that are focused on knowledge production, acquisition and transfer in enterprises.

The border may be established among three main resource categories:

1. **material resources**, such as financials, buildings, equipment, technologies etc.;
2. **non-material resources**: brands, licences, enterprise reputation, cooperation networks, databases;

3. **competences:** knowledge, organizational abilities to use fixed assets, observed business opportunities, ability to produce new knowledge on old basis, ability to produce innovations etc.

Relying on previously conducted studies, authors of this paper propose enterprise competences to be categorized as **basic competences** and **special competences**. The authors recommend to classify under basic competences such knowledge and capabilities that are necessary for performing daily activities and ensure the advantage of competitive ability, but cannot ensure long-term competitive ability and protect from competitor imitation. In their turn, special competences would be those that ensure long-term competitive ability of an enterprise since they are difficult to be imitated and replaced. In this context, basic competences are formed by human capital, willingness to learn, teamwork abilities as well as market and competitor knowledge, marketing analysis and its utilization in daily decision making. In their turn, special competences are those that contribute to innovation implementation in an enterprise and are routed in enterprise culture, social capital and business orientation.

The authors suggest their own definition for enterprise competences:

*Enterprise competences are defined as the resource which is formed by summation of knowledge and capabilities; the adaptative abilities of an enterprise to the changes of external environment are determined by utilization of this resource.*

**Enterprise basic competences** are defined as staff and management knowledge, capabilities and expertise, that are beneficial for an enterprise in performing daily activities as well as in developing a future strategy.

**Enterprise special competencies** are defined as enterprise capability to renovate the existing resources, produce new knowledge on the existing basis, observe new business opportunities and produce innovations.

### **Innovation conductive resources**

Assuming the logic of *Resource-Based View* as a basis, the conception of *dynamic capabilities* developed by *David J. Teece, Gary Pisano and Amy Shuen*, gained prominence in scientific literature and provided grounding for the development of *Knowledge Based View*. Later the ideas of dynamic capabilities were developed by many other authors, as well as expanded definitions and clarifications of this term were produced by them (Eisenhardt, Martin, 2000; Hamel, Prahalad, 2006).

Although alternative denominations are used by some other authors, all of these denominations refer to the same occurrence which is accepted to be named as dynamic competences. For example, Kogut and Zander (1992), who are considered to be the originators of *Knowledge-Based Approach*, use the term *combinative capabilities*, while *Amit and Schoemaker* (1993) present practically the same occurrence by simple *capabilities*.

Dynamic competences are of high importance since they render assistance to an enterprise in production of new knowledge. In such a way, these competences form a background which is necessary for innovation implementation. Dynamic competences are integratable into conception of special competences since exactly the special competences are those that ensure enterprise ability to produce innovations and adapt to the changes of external environment.

The significance of innovation in obtaining of the advantage of competitive ability and achieving the highest financial indicators, as well as the decisive role of innovative competences in rapidly changing environment when it is not possible to forecast a future situation, was reviewed in various studies. (Snoj, Milfelner, Gabrijan, 2007; Prajogo, Ahmed, 2006; McEvily 2004; Shoham, Fiegenbaum, 2002; Roberts, 1998).

According to *Hurley and Hult* (1998), organizational innovations are dependant on two factors –innovation oriented culture and ability to implement innovations (approach to

technologies, investigation and development). Consequently, it could be stated that the first factor is defined as enterprise special competences, and the second factor is defined in fact as financial resources, approach to technologies, investigation and development, which is largely dependant on financial assurance of an enterprise. It was acknowledged by many previous studies, where the impact of cultural (so called *soft factors*) and technological factors (so called *hard factors*) were tested separately from one another, that cultural factors are more important than technological factors since it is easier for competitors to get technologies than to create a relevant innovation oriented culture (Powell, 2006; McDonough, Kahn, 1996; Samson, Terziovski, 1999; Dow 1999).

Such factor as social capital is as important as organizational culture. Furthermore, such authors as *Bo Eriksen* and *Jesper Mikkelsen* (2006) use such social capital component parts as norms and sanctions as the analogue for organizational culture. However, social capital in the context of innovation implementation is usually understood as enterprise capability to cooperate with other market players. Cooperation renders assistance in obtaining of new and relevant market information, its participants, changes of external environment factors such as legislation, demand fluctuations etc., as well as in observing new business opportunities. In addition to this, cooperation is often necessary in order to divide innovation production and implementation costs (Inkpen, Tsang, 2006; Kogut, 2000). Cooperation with others (often with competitors) is especially important for small and medium-sized enterprises since expensive studies and development activities are not affordable for them due to limited financial resources (Roper, 1997; Ingram, Roberts, 2000). The importance of strategic alliance in various industries was proved by many previously conducted studies. The main conclusion of these studies is as follows: the cooperation of small and medium-sized enterprises with other players of their occupation field serves for increase of the number of innovative products and services (Lee, et al., 2001; Gulati, 1998; Ahuja, 2000).

A specific resource group that serves for increase of enterprise innovative potential and is defined as *entrepreneurial orientation* is the last but not least. This resource group and its impact on enterprise financial performance and innovations is reviewed in numerous studies. As the most important of these Lee et al. (2001), Atuahene-Gima, Ko (2001), Bhuian et al. (2005), Li, Calantone (2006), Lescovar-Spacapan, Bastic (2007) may be mentioned. The enterprise conception here is transferred from individual level to organizational level. By the same procedure as on the individual level, entrepreneurial orientation is related to the will of taking a risk, generation of new products or services and ability to observe new business opportunities. Therefore, entrepreneurial orientation is an important enterprise resource which is operated in empiric studies as development proactivity of new products and services, the will for innovation dominance in enterprise occupation field, as well as readiness of senior management to take a risk.

### **The analysis of most important indicators of enterprise innovative activity**

The methodology of empiric studies related to innovative activity was also affected by changes in innovation paradigms. In prior years (seventies and eighties of the last century) the amount of investments in research and development and the number of introduced patents were used as two main indicators in surveying of innovative activity. It was closely connected with then dominant *technologically-economic paradigm*, as a part of which the emphasis was put on investigation of technological innovations. Despite the fact that these indicators are still used for the estimation of innovative activity and are marked by a great number of substantial advantages, they have much more disadvantages though. The research and development investments and patents may be classified as traditional innovation indicators.

As the most important advantages of research and development indicators the following may be mentioned. In Western European countries these indicators were carefully collected at the level of national statistics management since the fifties of the last century,

therefore they make a significant and trusted data source. This data is analysable by time lines and sector cross-cut, it may be broken down by investments in fundamental research, business research and development activities. But regardless all these positive signs, there are many serious drawbacks in research and development data (hereafter referred to as R&D). First of all, no information is presented by R&D about innovation results (namely the development of new product or service) and practicality of investments. It is possible to invest significantly in research and development that will not result in innovation commercialization though. Secondly, R&D indicators are only applicable to the analysis of production sector, not the service sector, since innovations here are usually implemented without investing in research and development (Smith, 2006; Sundbo, 2008). Thirdly, the innovation analysis based on R&D indicators may reduce to zero the work done by small and medium-sized enterprises where research and development activities are organized rather as fragmentary occurrences than as a formal process. Fourthly, the R&D statistics, especially in small countries, is kept hidden – only aggregated data is available in order not to make it possible to estimate the costs of largest field players. This makes a big problem since the innovation statistics may only be meaningful if micro data is available for universities and other research institutions and is analyzable in various cross-cuts.

The next traditional innovation indicator group is compounded by patents and utilization of patents. They are usually used as the indicators of the work done on innovations. Similar to research and development statistics, patent database registration takes place for a long time by now, therefore the time lines are available. In addition, a doubtless advantage of this data is defined by its availability. However, the disadvantages of patents as innovation indicators are quite serious – some technologies, such as food products and services, cannot be patented. Small and medium-sized enterprises may deny the patenting of their products due to shortage of financial means. There is also a problem of an opposite nature – the largest part of patents were never and will never get commercialized. Therefore, the availability of a patent does not yet mean that an invention would transform to an innovation.

New innovation indicators that basically were developed under the *Community Innovation Survey*, consist of total innovation expenses, innovation proportion in an enterprise turnover, information sources engaged in the development of innovations, cooperation indicators.

Total innovation expenses as opposed to research and development expenses make a broader indicator, with which it is possible to estimate innovative activity investments of various types. In addition to this, these indicators are even lower in service sector that proves repeatedly the fact of research and development investments not to reveal a real situation of innovative activity status in service sector. Actually the greatest disadvantage of innovation expenses indicator is enterprise inability to provide a valid answer to this question (as it is in the case of investments in research and development), since these expenses are accrued from various balance positions and render a precise estimation difficult. Therefore, the reliability of this indicator is lower than that of R&D.

The innovative products proportion in enterprise turnover is a valuable innovation indicator since the real outcome of innovation activity is expressed by this, not only the investments made with the intention to achieve this result. However, the greatest disadvantage of this indicator is that a life cycle of a product is not considered by this which make an objective cross-sectoral collation impossible. The proportion of new products will be greater in those enterprises where product life cycle (*ceteris paribus*) is shorter, and vice versa. Therefore, in order to avoid systematic mistakes in this data interpretation, the questions must be supplied to surveys about average cycle of most important products and the data obtained about innovation products in enterprise turnover must be estimated with the consideration for this additional indicator. But this is not what really happens – no such questions were

included into the last Community Innovation Survey (CIS-4) collecting data on innovative activity indicators in 2005.

Throughout the years also the social capital indicators are included into Community Innovation Survey. The questions are made by Community Innovation Survey about information sources to be used by enterprises in the process of innovative activities as well as about cooperation with other enterprises, state or non-state organizations, universities and other research institutions. It is allowed by this data to conclude on enterprise social networks and the purpose to which specific organizations serve in these networks. However, a significant disadvantage of structural social capital indicators is that only the availability of contacts or their frequency at the best case are reviewed by them without paying any attention to the content and importance of such contacts.

### **Conclusion:**

Resource Based View emerged as an alternative to the strategic management theories explaining competitive advantage of an enterprise with its market position. The founder of Resource Based View was Edith Penrose who noticed that competitiveness of a firm varies considerably within one industry. Thus scientific community draw their attention to specific resources of a firm that are hard or even impossible to imitate by competitors. Those specific resources are intangible, rare and difficult to imitate and replace. Later the notion of dynamic capacity was developed. Those are the capacities that allow creating new knowledge and adapting to changing environment. Dynamic capabilities can be accepted as the most important resource since they provide an assistance in production of new knowledge. Among dynamic capabilities are innovation oriented culture, ability to implement innovations, social capital in terms of cooperation with other market players and entrepreneurial orientation – willingness to take reasonable risks and ability to observe new business opportunities.

The assessment of innovations demand agreement on clear and coherent indicators of innovative activity of an enterprise. Before, the most widely used indicators for innovation measurement were investments in R&D and the number of patents introduced by an enterprise. Though the biggest advantage of those indicators are their tracability (huge amounts of data are available, enabling usage of time series and other sophisticated tools for analysis), there are significant drawbacks in the usage of R&D and number of patents as the main innovation indicator (specially for analysis of SMEs). First of all, many small and medium enterprises do not have separate budget for R&D activities. On the other hand, it is possible to invest large amounts of money into R&D without any significant results in the output of innovations. Moreover, investments in R&D are not applicable indicators for service sector. Similarly, number of patents can be viewed only as a proxy indicator for innovation analysis as number of patents does not correspond to the actual number of innovations. Similarly as with the previous indicator, patents are rarely used in service sector.

Thus there was a need to develop new innovation indicators. Such indicators as total innovation expenses, innovation proportion in an enterprise turnover, as well as cooperation indicators are widely used nowadays helping to obtain broader overview of an innovation activity within small and medium enterprises.

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# OPEN INNOVATION AS A STRATEGIC MODEL OF MODERN BUSINESS

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## Abstract

The paper considers the characteristics of two models of innovation management in business: a “closed” and “open” innovation models. The traditional model of closed innovation suggests that it is created, used and developed within one company. The company concentrates all innovation processes within business, oversees its implementation and uses the results of own research and development. Formation and development of a knowledge-based economy requires shifting to a model of “open” innovation. This is due to the need of involvement in the process of new knowledge creating a wide range of professionals, academics and research centers from different countries and areas. Therefore, the possibility to organize a full cycle of innovation within a company is becoming increasingly difficult in an environment where innovation life cycle is reduced. Companies with “open” innovation transfer innovative processes to professional research laboratories, research centers and independent scholars. Inside the company stays a development department whose main task is the selection of the most promising start-ups, research proposals and their rapid commercialization. The concentration of innovation efforts of different participants of innovation chain development, the creation of conditions for the rapid completion of all stages of the invention into production will ensure successful development of “open” innovation model in the long term.

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**Keywords:** Business model, open innovation, strategic alliances, outsourcing

## Introduction:

The basis for the formation of a sustainable competitive advantage in business today is the need of effective innovation management and its transformation into a valuable market resource. In particular, the role of this strategic resource is increasing in the “knowledge” economy. However, the key problem of “knowledge” economy is not only the creation of new knowledge but also their applications in business. The processes of innovation management include concerted action of creation, protection, distribution and use of knowledge. It is necessary to choose an optimal model of innovation strategic management in modern business. The relevance of this problem is also related to the attraction of business to use partners’ forms of interaction. Complementary effect from such interaction is best developed in the management of innovation. The experience of business in recent years shows that it is difficult to hold leadership for long period of time only because of uniqueness and innovation that has only internal origin. Therefore, a change in the vector direction of internal (between different business units) and external (between the company and other contractors) knowledge transfer is observed. However, in some areas the external partners (customers, suppliers, competitors, etc.) can act as a valuable source of new knowledge generating that can be the basis for innovation.

To ensure effective functioning and sustainability of company growth, it is necessary to reduce the main stages of the innovation process: an innovative idea - the commercialization

of new products - investments in perspective radical innovation. At the same time, new forms of synergetic interaction between business, research centers and individual researchers appear. In particular, the spread of the global outsourcing model led to the increase of service and components providers' role not only as performers but also as co-innovators [1].

The purpose of this paper is to study the basic elements of the open innovation business model as the strategic perspectives of modern business.

Each company has its own characteristic of knowledge and innovation management model taking into account the specifics of its activities, the scale of production, organizational characteristics and corporate culture. In recent years there have been significant changes in the technology of forming a new model for managing innovation. The traditional model of the research and development (R & D) departments has been the most common for a long time. The company attracted leading experts, engineers and researchers who carried out a complete closed cycle of research and development processes. Thus, the characteristic of the traditional model of innovation management was that they are created, used and developed within a single company. This model of innovation management was effective because the company could concentrate all processes within business, monitor its implementation, and use the results of their own research and development. Schematic model of closed innovation is shown in Fig. 1.

But over time, the functioning of R & D departments has led to rapid growth of company's costs, while the output is not always possible to commercialize. In addition, the cost of new projects is significantly increased and their life cycle is much reduced. The need to attract new professionals resulted in enlargement of business as only big and thriving companies can afford powerful R & D. But gradually the company faced the situation that massive R & D budgets of technological leaders are not a panacea for the appearance of an ambitious "newcomers" who, not having the same resources and personnel, are gaining significant market share.

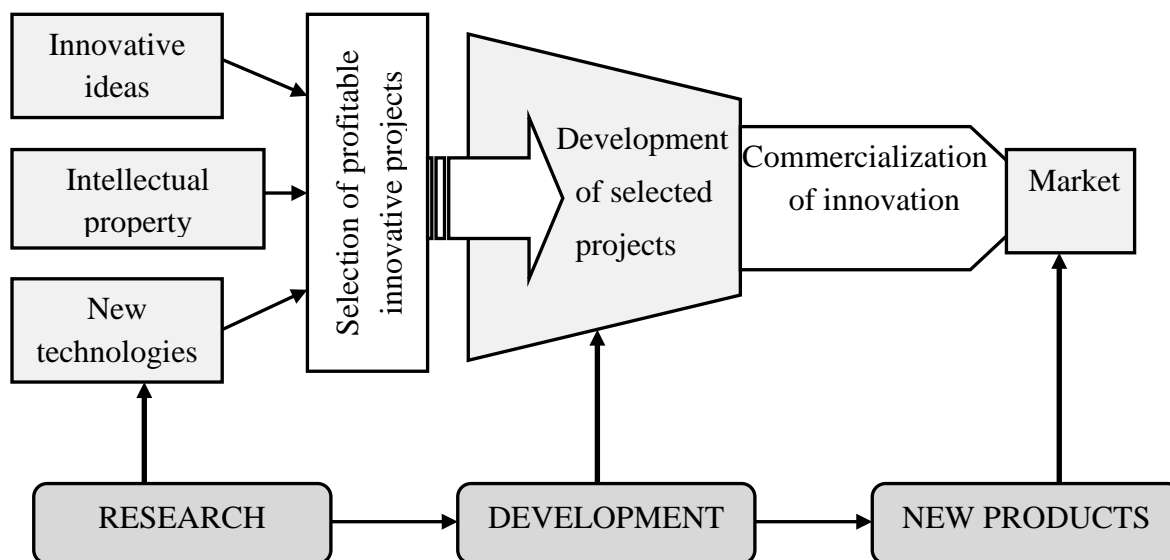


Fig. 1. Scheme of "closed" innovation business model(Compiled by the author based on [2])

In practice, there have been appearing companies, which in a short time by implementing a fundamentally different model of innovation, have gained leadership, and have formed a new group of knowledge economy's company. A striking example of the successful implementation of this model is the company Cisco Systems, which, having its own R & D department for a short time managed to oust the market leader of network equipment - Lucent Technologies Company. Managers of Cisco Systems formed a new model of knowledge and innovation management - open to the outside market. The company buys at

the market a result of development in the industry and invests significant financial resources in promising start-up projects. Cisco Systems has in its structure a department of acquisitions & development which ensures the open innovation model of the company. Thus, in the last 10-15 years, knowledge management model that was based on the internal research and development department transformed a full cycle into an open model of knowledge management and innovation. Its feature is that the company delivered professional processes to research laboratories, research centers and independent specialists. Inside the company there is the development department whose main task is the selection of the most promising start-ups and research proposals and their rapid commercialization. American researcher H. Chesbrough called this model as “open innovation” [2].

The model of knowledge management which corresponds to the concept of “open innovation” is characterized by two-level direction: internal vector involves bringing the company promising technologies from external developers and external – selling on market the results of corporate R & D in the form of start-ups, the rights to technological developments, which for any reasons are not claimed by the company (Fig. 2).

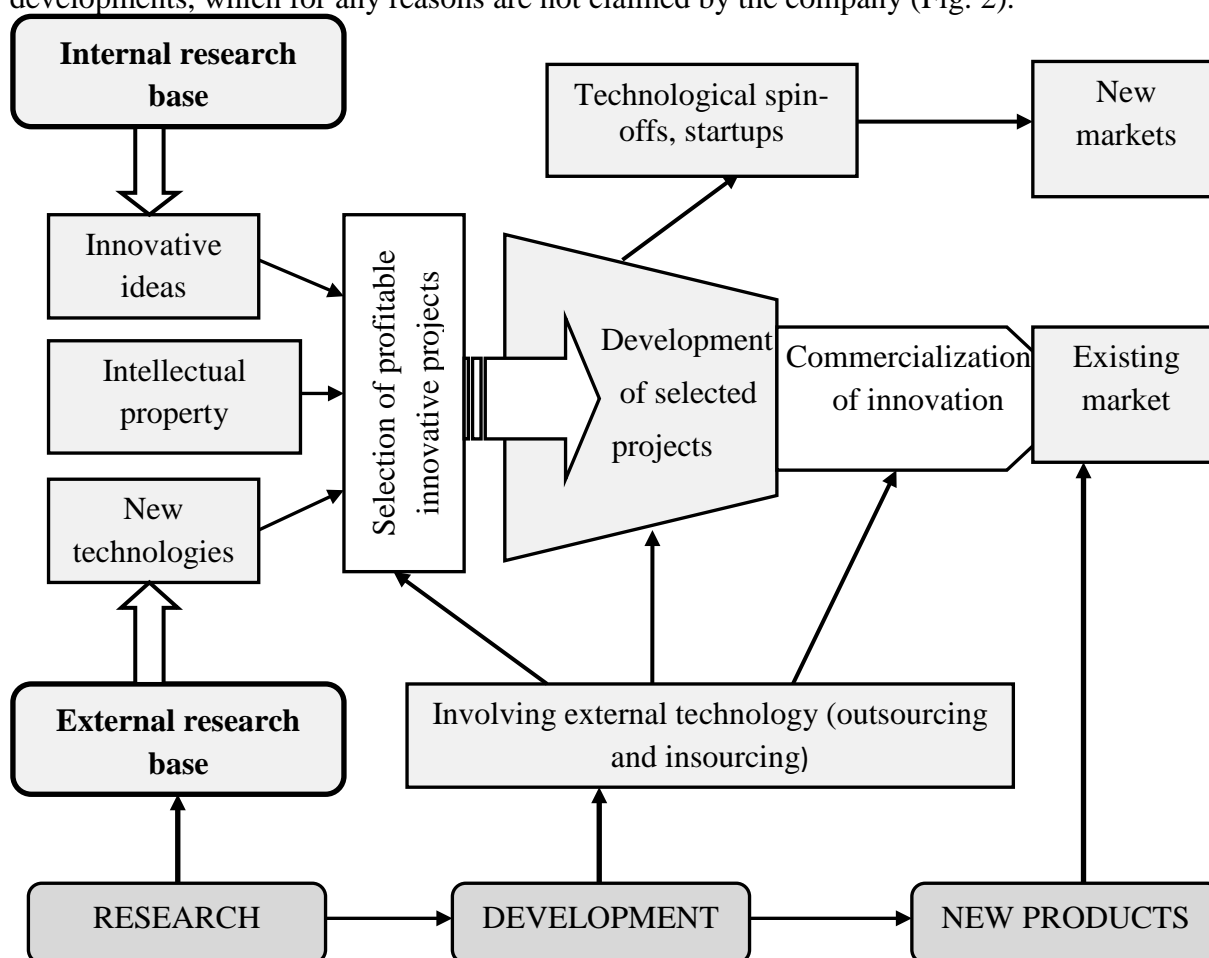


Fig. 2. Scheme of “open” innovation business model(Compiled by the author based on [2])

One of the tools of the open innovation model introduction is the use of Internet technologies. In particular, the practical realization of such a model is undertaken by Procter & Gamble. The company works with more than 1.5 million researchers worldwide through Internet communications except 9000 staff in research and development inside the company. It provided increased productivity of the company by 60%. The company organized and operates connect & develop department (“connection” means to work together to create new products with customers, distributors and other parties [3].

Another example of innovation openness is the acquisition by Facebook an image sharing application Instagram. The increased activity of users in the exchange of photos showed that the competition from other image-oriented social networking sites is increased. The growing dissatisfaction of the most users of Facebook mobile versions requires to search a quick solution to this problem. The acquisition of Instagram has allowed Facebook to save time and enhance competitive position without the need to independently develop similar application. Innovation through acquisition quickly get a tangible result.

The principle of strategic interaction as an external vector of new innovation management model involves “open” process of research and development, creation and promotion of the common market innovative products and technologies on the basis of interaction with its external contractors: suppliers, customers, competitors, innovation intermediaries and other innovative oriented business entities associated with it horizontally.

There is a whole community of scientists and amateurs called InnoCentive. It brings together more than 160 thousand talents, helping corporations around the world. Companies like Boeing, DuPont and Procter & Gamble publish on community pages tasks and issues that cannot be decided by their internal services, and any of its member or group of members can take up their decisions. The fee for a successful amateur decided task ranges from \$ 10,000 to \$ 100,000. According to statistics, more than 30% of the proposed tasks have been solved by the community. It is one-third of those tasks that could not be handled by the internal experts, with their experience and special education [3].

An example of such competitions in Ukraine is “Innovation Breakthrough 2013”. Its mission is to promote the development of innovative activity in Ukraine, to unite interests of investors, inventors and enterprisers for the successful implementation of new products and services. The aim of the contest is to increase the economic effectiveness of the business fields through the introduction of innovative ideas to Ukrainian investors [4].

In conditions of modern business almost no one can be successful and prosperous individually and independently. Knowledge, skills, innovation and professional staff are spread around the world. Experts are divided on many, often little-known tech companies or start-ups. In order that the company can be successful in the creation and commercialization of innovations, it is necessary to know and be able to use these global resources, narrowly specialized skills and widely encyclopedic knowledge, to be a functional part of the community for an open and a new process.

Comparative characteristics of “open” and “closed” models of knowledge management are given in Table 1.

*Table 1 Comparison of “closed” and “open” models of innovation management*

Source of knowledge generation and innovation	Business function	Closed model	Open model
Internal	Human capital management	Attracting the best talents in the business. Creation of internal research and development.	Permanent staff develops and selects startups. The results of research are acquired on the internal market or company involve the best specialists for them on a competitive basis.
	R&D management	Closed and full cycle “research-development-implementation (commercialization)”.	Short cycle “development – implementation (commercialization)”. Involving knowledge of high value from the external market.

	Business management	Owning of the research and development result ensures primacy in the market for a long time period.	Market leadership ensured the selection of promising start-ups and their rapid commercialization.
		Leadership in innovation provides leadership in the market.	Leadership in results innovation value provides leadership in the market.
	Intellectual property management	Strict control over intellectual property and legal rights on it.	Open operations with intellectual property and rights on it. Generating new knowledge on the base of use of intellectual property by other companies.
External	Relationships management	Vertical cooperation with major research centers and laboratories.	Horizontal cooperation of different partners with modern Internet instruments.

An important condition for effective implementation of cooperation in the field of knowledge management is the infrastructural support of innovation. The elements of this infrastructure include:

- Innovation intermediaries;
- Centers for development of new products and technologies;
- Elements of financial support for innovation (venture capital funds);
- Coordinator of innovation (incubators);
- Advisory and educational centers.

An important tool for effective functioning of “open” innovation model is patent protection. Besides the fact that it is a legal instrument, patent protection becomes a powerful source of cash flow generation of innovation rents in “open” business model.

According to the World Intellectual Property Organization (WIPO), profits of companies owning many patents, in average of 5-8% are higher than the profit of resource concerns. For example, in 2012, the largest healthcare company Novartis AG earned more than \$ 4.9 billion on patent royalties, that is nearly a third of its budget. Almost all large companies in developed countries (IT-sector, medicine, telecom - that is knowledge-intensive areas) try to transfer the assets in the sphere of intellectual property. For example, at the end of 2012, the Intel Corp declared about willingness to spend one and a half times more on invention and innovation to increase the share of intellectual property by 65% of all assets [5].

Formation of open innovation models in business is positive for the economy in general, as it provides the positive process of modern and innovative technology transfer on the domestic market.

According to analysts of the European Commission, the gap between countries that have made a bet on innovation and resource-dependent countries will grow. The European Commission believes that by 2050 year such counties will be completely outside of the modern progress. In the past few years, competition around new technologies has escalated. Asian economies, led by China will try to catch up with developed countries in the area of innovation. In 2011, China registered 1.63 million patents, increasing this index for 2012 by 33 %. At this rate China will overtake the U.S. in the number of inventions already in 2025 [5].

The developed countries are trying to retain the intellectual leadership. In 2012, when the U.S. and the EU have begun to publish the doctrine of innovative development, it became

clear that the main source of funding is shifted toward the formation of research centers. In the United States is planned to establish scientific conglomerates that combine a whole regions and institutions in the same network. In the EU is planed to strengthen the financing of individual universities and organize them on the basis of the experimental laboratory. It is the concentration of innovative efforts of different participants in the innovation process and creating the conditions for the rapid completion of all stages of the invention to produce and ensure successful development model of open innovation in the long term .

### **Conclusion:**

The processes of creation and functioning of a modern knowledge economy cause the appearance of new knowledge management models of innovation. The transformation of companies in the open innovation business model is perspective from the standpoint of strategic development. They benefit from the rapid commercialization of their ideas and are able to enhance their experience through the dissemination of these innovations, among other companies in the market (startups and spin-offs). They also can obtain economic benefits from innovation rents due to patent protection and sales licenses. The business model of “open” innovation in Ukrainian business has great prospects in the field of pharmacology, chemistry and other areas where companies are able to produce innovative ideas which development is possible through direct market entry. Exactly foreign market should be a source of creative ideas, developments and offers, saving financial resources for the company. In addition, the model of “open innovation” provides the functioning of advanced outsourcing market. University education centers play an important role in the process of open innovation models creation; those centers may be involved in the chain of formation and commercialization of knowledge and innovation.

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# **BUSINESS DEVELOPMENT IN KAZAKHSTAN AT THE END OF THE XIX – AT THE BEGINNING OF THE XX CENTURY (ON THE EXAMPLE OF SEMIPALATINSK REGION)**

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## **Abstract**

The article discusses the features of the development of capitalist relations in Kazakhstan as a colony of the Russian empire, the adaptation of the Kazakh population to the new conditions of the economy, the emergence of new forms of capital investment, private entrepreneurship.

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**Keywords:** Business development, Semipalatinsk region, Kazakhstan

## **I.**

Formation of the all-Russian market, fast development of productive forces in the 2nd half of the XIX century affected distribution of the capitalist relations in national regions of the empire. Kazakhstan was involved in the all-Russian market, more intensively began to develop agriculture that accelerated decomposition of natural economy of Kazakhs, marketability of agriculture had increased, cities and industry began to develop. Gradually there were favorable conditions for the expansion of close connections between nomadic Kazakh and farming population. East Kazakhstan cities carried out considerable mediatorial functions. In the 19th and at the beginning of the 20th century Semipalatinsk was the largest trade and economic center of the country and took one of the first places on trade turnover among Kazakhstan cities. In 1900, according to annual reports of local offices of banks, trade turnover was 100 million rubles [1, P. 35].

At the same time city was also the largest distribution center for the majority of internal regions of the country, supplying them with foreign goods and products of factories and plants of the central regions of Russia. Intensive development of trade activity of the city in these years was caused by general economic recovery of the 90th years of the XIX century, in particular growth of foreign trade, especially grain export.

Value of Semipalatinsk as a trade center especially had increased in connection with trade revival with Western China. Leather and red yuft of Semipalatinsk production and also chintz, velvet, cast iron, iron products were exported from Semipalatinsk. Tea, china, silver in ingots, Chinese fabrics were carried out from China to Russia. Part of these goods were on sale in Semipalatinsk, but generally they were taken to Tyumen and Irbitisk fairs, to Kazan and Moscow [2, P. 124].

Under authors' certificate of those years, trade in East Kazakhstan was more brisk than in Orenburg region. To a certain extent, it was explained by the fact that Semipalatinsk, Pavlodar, Ust-Kamenogorsk merchants enjoyed advantages of conducting trade without certificates [3, P. 58].

Home trade continues to develop mainly with Kazakh nomadic population. Every year number of Kazakh merchants' caravans coming to Semipalatinsk from steppe had increased. For example, in 1863 goods almost on 104 thousand rubles was brought from Kazakh steppe [4, P. 41] Most part of purchase and sale was made by cattle and livestock raw materials.

Cattle and cattle products remained main objects of bargaining throughout all studied period. As an independent branch cattle trade was allocated before all in Kazakhstan.

As a whole specialization in trade was absent and was characteristic only for enterprises which have been closely connected with local agricultural production. At fairs Kazakh rich men were large cattle manufacturers. A well-known traveler Atkinson wrote that during his trip from Semipalatinsk he met a cattle manufacturer who drove 300 horses, 7000 bulls and more than 20000 sheep for sale. General cost of goods was about 100000 rubles. [4, P. 42]

Since the end of the XIX century cattle trade continued to develop intensively in Kazakh steppe. Cattle manufacturers adapted to new conditions of housekeeping, breed cattle not only for own needs, but also for the market, maintained relations with large fairs, including city fairs. Purchase, cattle resale and other goods brought in considerable incomes to wealthy merchants. For example, goods for the sum of 111248 rubles and 20 kopecks had been brought by the Tobolsk merchant of the I guild Pilenko with salesmen, Ishim merchant of the I guild, Tatar merchant of the I guild Nazar Bayazitov and others, duty of 1185 rubles and 05 kopecks were taken from them [3, P. 59].

Home trade developing in Semipalatinsk more and more attracted merchants of different nationalities. Semipalatinsk merchants – Russians, Tatar, Tashkent, Bukhara merchants carried on trade in Kazakh steppes. Increasing number of city dwellers and part of the suburban Cossack, country and village population began to be engaged in commerce and industry activity. For example, if in 1894, 3180 trade certificates were given for the right of production and participation in trade, in 1895 their number was 4708 [5].

As for the data about merchants and trade documents bought by them, it is necessary to emphasize that to official sources under "merchants" column concerned only Russian, Tatar, Asian merchants. Often merchants from indigenous population were not among them. Therefore, in fact their number was much more.

Though merchants from Kazakh environment didn't manage to be allocated as an independent group of the population, Kazakhs quite actively participated in trade. F.A. Shcherbina wrote in 1899: "Trade at Kyrgyz is considered to be favorite trade, especially among rich men and persons inclined to merchant profit. But Kyrgyz dealers in this sense is only intermediaries between cattle sale and cattle products, on the one hand, both the Russian consumer and real cattle owner - on the other hand. Kyrgyz poor man can't go to the market or fair to sell any calf, either couple of rams, or leather or half-pood of wool and others, and all this were at improbably low prices in Kyrgyz intermediary earning enormous profits on these transactions" [6, P. 46].

Exiled revolutionary A.Yanushkevich who had visited Semipalatinsk in the 40s of the XIX century wrote: "City industry consists only of several tanneries and mills" [7, P. 6]. However from the second half of the 19th century number of industrial enterprises are being increased in the city. For example, if in 1864 there were 4 tanneries in Semipalatinsk, at the end of the century there were 47 factories and plants [2, P. 102]. Besides, there were some steam mills in Semipalatinsk. "Semipalatinsk steam mills joint-stock company" was created [2, P. 104].

A new sphere of application of capital - for distillation appeared since the 60s of the XIX century in Semipalatinsk region. In 1862 wine merchant Poklevsky constructed the first distillery in the region. Being a profitable industry and trade, distillation couldn't help drawing other businessmen's attention. Local merchant P. Pleshcheev became one of them. It was he who made rigid competition to Poklevsky in this case, having constructed distillery much closer to the city in 1882. Subsequently this plant began to be called as Znamensky distilling liquor plant N 20 of the trading house «Pleshcheev and K» [8].



Gradually capitalistic methods of production began to be approved with introduction of new equipment. Distillery was equipped with the device made at "Dangatser and Kaiser" mechanical plant in Moscow [3, P. 124].

Pleshcheev's distillery was the largest enterprise not only in its branch, but also the largest among all enterprises in the region by the amount of production. 40 masters and workers worked in the second largest Semipalatinsk enterprise, in a steam mill, after Pleshcheev's enterprise, in 1895 it produced output for 54277 rubles. In 1895 at Pleshcheev plant worked 90 masters and workers, it produced output for 98132 rubles. [9, P. 34]

At the end of the XIX - the beginning of the XX centuries in East Kazakhstan more and more extended grain growing that was promoted here by migration of peasants from central regions of Russia who were engaged generally in arable farming. Grain trade took on great significance with expansion of grain growing. As the most wholesale grain merchants in Semipalatinsk can be called: Krasilnikov, Pleshcheev, Musin, Habarov, Zlokozov brothers and others [10, P. 59]. Flour had been accumulated generally on Krasilnikov, Pleshcheev and Musin's mills.

Bought bread with navigation opening by towing steamships were sent down across Irtysh to Omsk or Tyumen, from where were shipped to the European Russia and abroad. 380 thousand poods of wheat flour and 30 thousand poods of oats [4, P. 45] were bought in Semipalatinsk in 1900.

Here the greatest concentration of the capital had been reached with development of flour-grinding industry. Cyndicate of joint-stock company of the flour-grinding enterprises organized in 1908 can be an example. At the head of joint-stock company were Semipalatinsk mayor P. Pleshcheev, large flour-grinding enterprises merchants-owners M. Krasilnikov, M. Artamonov, B. Yadryshnikov, L. Musin, etc. Altogether 27 people. Without competitors, they appointed wheat and flour prices at their own discretion and received huge profits [3, P. 125].

Semipalatinsk was not only center of home trade in the region, but also an important transit point of trade and economic relations of Russia with western regions of China. The Irtysh River allowed city to become a major river pier and was the main trade way in this direction. "Though the first steamships across Irtysh went in 1861, regular steamship service above Semipalatinsk to Zaisan began only since 1901" [11, P.19]. In 1901 P. Bereznitsky and P. Pleshcheev organized "Verkhneirtysh shipping and trade joint stock company" with capital of 30000 rubles. Steamships made a voyage from Tyumen through Pavlodar and Ust-Kamenogorsk to Semipalatinsk, carrying a load from European Russia. On these vessels leather, wool, bread and other goods [3, P. 116-117] were exported from boundary regions of China.

General industrial boom of the 90s of the XIX century was connected with rapid railway construction in Russia. Problem of carrying out railroad through Semipalatinsk region, namely about connection of Semipalatinsk road on the one hand with Tashkent and Vernuy, and on the other hand with Siberian railroad through Barnaul, was discussed in the late 90s of the XIX century. At the beginning of the XX century construction of Novonikolayevsk (nowadays Novosibirsk) - Semipalatinsk railway line through Barnaul begins.

"Imperfection of means of communication is one of the important reasons interfering industry development, demand on its raw materials, for trade distribution, to say nothing of speed of turnover... These reasons would be eliminated thanks to inflow of capital and enterprising people if Semipalatinsk region could leave isolation, connect with industrial world advanced with means of communication, in particular with railroad" [12, P. 38]. Development of means of communication, trade exchange increase to a great extent promoted strengthening of economic relations of Kazakhstan with Russia and to involvement of Kazakhstan, including Semipalatinsk region, to all-russian capitalist market, and also caused further industrial development of the region.

## Conclusion

By the end of XIX – at the beginning of the XX century elements of capitalist production get into Kazakhstan in connection with region's worked involvement into Russian economic relations. In Semipalatinsk region during the studied period capital investment were carried out generally in the branches giving high percent of profitability, i.e. development of natural resources, or branches subordinated to requirements of primary processing of raw materials. Considerable part of the capital was concentrated in trade providing the highest profitability.

Trade was the main sphere of business during the studied period. Many businessmen, having saved considerable capitals in trade, passed to industrial activity. First of all industrial capital got into such branches of production which were connected with trade, didn't demand considerable expenses, were based on a local raw materials source and stable demand for their production promoted formation of stable sales market. Best of all productions based on processing of agricultural and livestock raw materials: flour-grinding, tanning, fat melting, oil, beer brewing, etc. met these conditions and predetermined their predominant development.

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# THE FINANCIAL CRIME IN HELLAS AND ITS COMBATING BY THE HELLENIC LAW ENFORCEMENT AGENCIES. THE CONTRIBUTION OF THE EU ORGANIZATIONS OF EUROPOL AND EUROJUST

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## Abstract

As is being known Hellas is in a crucial turning point of its modern history, as the economic policies during the last three decades have lead the economy to bankruptcy threshold.

But overall crisis that Hellas faces in social and political level as a result of the economic crisis but also as a result of numbers structural problems which have been developed over the last thirty years in the country, repeatedly raise in the forefront a request – which occupies the majority of the citizens: the prosecution of financial crime.

The reasons for this are obvious and fully understood. Key financial issues for Hellas as many surveys have shown constitute bribery, corruption, tax evasion, tax opacity but also the confidence lack to the authorities. To these should be added and the demerit of Hellenic citizens for the Hellenic political leadership class.

With a financial control mechanism that cannot function adequately and effectively, the deficits to remain, unemployment is increased and the black economy to be in soaring, citizens expect that control mechanisms could lead on the revenue increased for the State, but also through effective action by the competent authorities in this section, to be discouraged citizens as far as concerns the law-breaking that demonstrate in areas related to financial activities.

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**Keywords:** Financial Crime, Financial Public Prosecutor, Economic and Finance Crime Unit (SDOE), Hellenic Police (HP), Hellenic Coast Guard (HCG), Europol, Eurojust

## Introduction

Criminal enterprises aim to generate profits. Organized crime does not occur in isolation and the state of the wider economy plays a key role in directing the activities of Organized Criminal Groups (OCGs) (PWC, 2011). The economic crisis has not led to an increase in organized crime activity but there have been notable shifts in criminal markets.

Many OCGs are flexible in their illicit business activities and capable of quickly identifying new opportunities that have arisen during the current economic crisis. For example, in response to reduced consumer spending power, counterfeiters have expanded their product ranges. In addition to the traditional counterfeit luxury products, OCGs now also counterfeit daily consumer goods such as detergents, food stuffs, cosmetic products and pharmaceuticals.

Growing demand for cheap products and services stimulates the expansion of a shadow economy in which migrant labour is exploited. Irregular migrants arriving in destination countries often have no choice but to accept exploitative conditions and working practices in order to pay off debts incurred through their journey. Exploited workers are paid

less and work harder making them attractive to unscrupulous employers who are seeking to decrease production costs.

The economic crisis may also have resulted in increased susceptibility to corruption by individuals occupying key positions in the public sector, especially in countries where large salary cuts have taken place. Reduced incomes and fewer employment opportunities in combination with low interest rates may also make spurious investment opportunities more attractive. This has the potential to enlarge the pool of potential victims for investment, advance fee, and other types of fraud.

Austerity measures in the public sector, including spending on law enforcement, may reduce prevention measures aimed at increasing safety and security due to their high costs. This will allow OCGs to operate more easily and for their activities to remain undetected for longer.

The economic crisis and resulting changes in consumer demand have led to shifts in criminal markets. Many OCGs are flexible and adaptive and have identified and exploited new opportunities during the economic crisis. Reduced consumer spending power has inspired counterfeiters to expand into new product lines.

Economic crimes and fraud in particular have emerged as more significant organized crime activities. OCGs are involved in a wide range of frauds generating very high levels of profit. Although fraud is often perceived as a victimless crime, it causes significant harm to society and losses of billions of Euros per year for all European Union (EU) Member States (MS). Fraud is largely facilitated by the availability of enhanced communication and technological tools in which individuals and companies are increasingly targeted online.

Serious and organized crime (SOC) has a significant impact on the growth of the legal economy and society as a whole. The investment of criminal proceeds and trade in illicit commodities reduces MS budgets through tax avoidance and strengthens criminal enterprises run by or associated with OCGs. It must be also mentioned that except the OCGs individuals are trying on personal basis to gain as more as they can by avoiding fulfilling their finance obligations as they are predicted in the law.

Aim of the presented study is the description of the financial crime in Hellas [Kourakis N. 2001]), the main LEAs that are activated in its combating in domestic [Korontzis T. (2012) 'b' and Korontzis T. (2012) 'e'] but also in international level and the critical approach of their operation. In this frame is essential to be developed the institution of financial public prosecutor that has been established in Hellas in the last few years, as well as the problems that faces in its operation. It is noted that in Hellas has not been established the institution of Juridical Police [Korontzis T. (2012) 'g', Korontzis T. (2011) 'b'].

Also will be presented analytically the contribution of the EU organizations of EUROPOL and EUROJUST to the Hellenic LEAs in combating of this specific phenomenon. It is noted that the above mentioned organizations have a great experience in fields like Transnational Organized Crime including financial crime [Korontzis T. (2012) 'c'].

Finally, the study will be completed with the presentation of conclusions - proposals that were exported from this.

### **The determination of financial crime in Hellas and basic characteristics of the Hellenic economic situation**

As financial crimes are determined crimes committed against the financial interests of the public and of the national economy in general or appears the characteristics of organized crime [article 3 paragraph 1 (Presidential Decree) PD 9/2011 (A' 24)] [Papandreou P. (2011)], [Zisiadis V. (2001)].

It must be noted that main characteristics of the Hellenic public administration recommend the inefficiency, the misconduct and the corruptness, (Hellas possesses the 80th place among 180 states according to the annual Report of the international organization

INTERNATIONAL TRANSPARENCY). These have led the tax evasion in amounts of 10-13 billion Euros or the 5-6% of Gross National Product (GNP) and the underground economy in amounts of 54-61 billion Euros or the 25-28% of GNP rendering Hellas champion in negative economic indicators between Organization for Economic Co-operation and Development (OECD) countries (ELIAMEP 2011).

As is has been known, Hellas from 2010 (Spring) up today is under international economic surveillance, since the Hellenic State could not and still cannot, correspond in its economic obligations (excessive public debt and deficits) [O Kosmos tou Ependyti, 2011]. The reasons for the current situation are many, have been discussed a lot and they are still discussed extensively [indicatively are mentioned certain texts as for the particular subject exists a capable bibliography and articles (Lygeros S. 2011), (Vavouras I. 2011), (Markezinis V. 2011), (Kefalogiannis M. 2010), (Giannakou M. 2010)].

Concisely can be said, that further of the general international economic crisis, the Hellenic Governments proceeded in the last thirty years in thoughtless lending, did not develop productively investments of EU capitals inflows, they did not face the structural problems of Hellenic economy, they created a enormous public sector with main characteristic the employees enormous number and the low quality in the provided services. The growth for some time was supported by the continuous lending, which was not turned in productive activities but in the consumption.

It was not also faced the tax evasion (revenues of 13 billion Euros or 5%-6% of the GNP was loosed by Hellas each year from the tax evasion) (ELIAMEP, 2011), as also the underground economy and the distortions of the Hellenic economy.

All these in combination with the corruptness that dominates in Hellas (Kostarelou E. 2011), the opacity which dominates in the processes of the majority of the transactions with the public sector, the complexity of the tax system, which make difficult each familial and professional budget, the overregulation that acts suspensively in the productive investments but also contributes in the corruptness (Mitsios I. 2011), (Mpenea M. 2012), the slow or even insufficient performance of justice, the penal immunity of politicians who led Hellas to this situation, claiming that they will bring Hellas in the «right street» [Korontzis 2013 ‘‘a’’ and ‘‘b’’], those that led this State here, have created explosive situations. Situations that have ejected the unemployment in a percentage of 29% approximately, workforce is escaping in abroad in order to find work, the shrinkage of wage and pensions etc.

Despite the forceful and painful measures for the Hellenic population, who is called to survive in difficult conditions and was led in this position by the disability of the Hellenic political leadership class in the last thirty years, the main characteristics of this crisis in Hellas remain as follows:

- A.- the dynamic of debt remains unfavorable,
- B.- the dynamic of competitiveness regarding mainly the “structural” competitiveness that is connected with the creation of friendly environment to the enterprising activity is negative,
- C.- there are existing problems in the operation of public sector, with enormous number of employees, low efficiency and excessive expenses,
- D.- problems in the structural changes promotion in closed professions, in the system of health etc
- E.- recession increase,
- F.- jobs losses (report of Hellenics Bank Governor, 2011).

The underground economy and the tax evasion, as have been mentioned before dominate, and the Hellenic competent authorities through the responsible controlling mechanisms show feeble and incompetent to face them (To Vima, 2011). The financial crime also dominates, despite the establishment of special services but also entrusting of special duties to other services in order to combat the various forms of financial criminality.

## **Hellenic Law Enforcement Agencies**

The main Law Enforcement Agencies (LEAs) that are activated in Hellas in combating the phenomenon of financial crime, are the Finance and Economic Crime Unit (SDOE), the directorate of Finance Police of Hellenic Police (HP) and the Hellenic Financial Intelligence Unit (FIU).

It is noted that the Hellenic State has established also and other institutions and authorities that are able to enforce duties in combating the financial crime, as Public Taxes Services (DOY), the Custom Offices, the Controlling Centers, the Finance Inspectors etc. Duties in combating the phenomenon of financial crime have been also assigned to the Hellenic Coast Guard (HGC).

## **Finance and Economic Crime Unit (SDOE)**

SDOE according to the legal practice that characterizes the public policies of Hellenic governments during the last thirty years (30), for instance overregulation, changed title but not and duties through four acts in the last fifteen years.

More specifically, SDOE was established by the article 4 of Law 2343/1995 (A' 211) and was under the supervision directly by the minister of Finance. It was also established a position for a Special Secretary in order to direct this service.

Flowingly, according to article 30 of Law 3296/2004 (A' 253), was established a new service under the title «Service of Special Controls» (YPEE), which was subjected directly to the minister of Economy and Finance (now ministry of Finance). With the beginning of YPEE operation automatically was stopped SDOE operation (mainly as far as concern the name of the institution) as it had been established basically according to article 4 of Law 2343/1995. In this new service Head was a Special Secretary [article 28 of Law 1558/1985 (A' 137)].

The organization of YPEE was regulated by the provisions of PD 85/2005 (A' 122). Flowingly with the article 88 & 1 of the Law 3842/2010 (A' 58), YPEE which had been established by the article 30 of Law 3296/2004 was renamed as SDOE. Substantive and formally, after fifteen years (1995-2010) from the establishment of this service and after titles changes without meaning, legally this service in question turned there from where had started.

SDOE mission according to article 2 & 1 of PD 85/2005, is «the revelation and fighting of financial crime centers, big tax evasion and smuggling, competence of ministry of Economy and Finance, the control of capitals movement, the control of goods and services distribution, as well as the possession and distribution of prohibited or under special regime types and substances, the control of the right enforcement of the provisions that are related with the national and EU subsidies, as well as provisions that are related with the protection of public property, aiming at the prevention of relative infringements and illegal actions, the willing juveniles conformity, the prosecution of responsible perpetrators, as well as the protection of the Hellenic State general financial interests, of the national economy and of the EU».

SDOE personnel according to paragraph 2.[i] of the above mentioned article, can make arrests and persons interrogations and searches of means, goods, persons, shops, deposits, residences and remaining spaces, as well as in the realization of special interrogative action, according to the special provisions which are in force each time and the provisions of Hellenic Penal Procedure Code (HPPC) for the offences that are forecasted by the relative legislation and are within its competence (article 5&c, of Law 3296/2004).

Its territorial competence is extended in all the Hellenic territory and its competencies are exercised by the Central and the Regional Services as fixed in the provisions of PD 85/2005.

It must be mentioned that recently juvenile cases were ascertained concerning leading and top ranking SDOE executives (Mpena M. 2011), (ministry of Citizen Protection, press release, 2012)

### **Hellenic Police/ Finance and Cyber Crime Unit**

By the PD 9/2011 (A' 24) was established the Finance and Electronic Crime Unit of HP. The service in question is a self-existent Central Service, on Police Directorate level, under the supervision of the HP and is overseen and checked by its Chief. It is located at Attica prefecture and practices its competencies in all the Hellenic territory, apart from the spaces which special provisions forecast HCG competence.

Its mission is the prevention and repression of financial crimes, as well as crimes that are committed through the internet use or other means of electronic communication (article 1& 2 and article 4).

In order to implement effectively its mission [results of controls are available on [http://www.astynomia.gr/index.php?option=ozo\\_content&lang='.'&perform=view&id=24766&Itemid=1058&lang=](http://www.astynomia.gr/index.php?option=ozo_content&lang='.'&perform=view&id=24766&Itemid=1058&lang=) and [http://www.astynomia.gr/index.php?option=ozo\\_content&lang='.'&perform=view&id=12774&Itemid=863&lang=](http://www.astynomia.gr/index.php?option=ozo_content&lang='.'&perform=view&id=12774&Itemid=863&lang=)] has been hired staff with special scientific and concrete academic background in sectors like economic, financier services etc (Astynomiki Anaskopisi, 2011, 266 and Astynomiki Anaskopisi 2011, 269).

Regarding the prosecution of electronic crime is pointed out that according to article 2, paragraph c, of PD 85/2005, SDOE has also competence in the search, revelation and combating of illegal transactions, frauds and activities that are held with the use of electronic means, internet and new technologies (article 30&2c of Law 3296/2004) (Psarra M. 2011).

It is must be noted that publications of press have reported that between the two above mentioned financial services exist conflict and competition (Staurakakis M. 2011)

### **Hellenic Coast Guard**

Regarding the HCG [Korontzis T. (2011) 'a'], which practices its competencies in the rest of Hellenic Territory - in consequence of HP competences - in article 19 of PD 67/2011 (A' 149) under the title «Public Security Directorate» and more specifically in the paragraph 3a, exists forecast in the combating of the financial and electronic crime [Korontzis T. (2012) 'd'].

In the HCG according to article 22 of the aforementioned PD has been established «Antidrug and Contraband Directorate» [results of tobacco smuggling are available on <http://www.hcg.gr/node/4046>]. The directorate in question and according to the paragraph 1 of the same article, is responsible on financial crimes affairs handling that have relation with narcotics and for the prosecution of crimes that concerns the illegally import and export of virtuous and other products. In the particular sectors the HCG have demonstrated remarkable activity (ministry of Citizen Protection/HCG, press release, 18-11-2011).

### **Hellenic Financial Intelligence Unit (FIU)**

By Law 3932/2011 which amended Law 3691/2008 the Anti-Money Laundering, Counter- Terrorist Financing Commission was renamed the «Anti-Money Laundering, Counter-Terrorist Financing and Source of Funds Investigation Authority».

The Authority is a national unit aiming at combating the legalization of proceeds from criminal activities and terrorist financing (Priniotaki M. 2008), assisting in security and sustainability of fiscal and financing stability.

Its mission, according to Law 3691/2008, as amended by Law 3932/2011, is the collection, the investigation and the analysis of suspicious transactions reports (STR's) that are forwarded to it by legal entities and natural persons, under special obligation, as well as every other information that is related to the crimes of money laundering (Gkortsa I. 2008) and terrorist financing and the source of funds investigation.

The Authority has been restructured into three (3) individual units as follows:  
a. The Financial Intelligence Unit (FIU). In addition to the President, the FIU comprises seven

(7) Board Members of the Authority. At the end of each year, the FIU submits an activities report to the Institutions and Transparency Committee of the Hellenic Parliament and the Ministers of Finance, Justice, Transparency & Human Rights and citizen Protection.

b. The Financial Sanctions Unit (FSU). In addition to the President, the FSU comprises two (2) Board Members of the Authority. At the end of every year, the Unit submits an activities report to the Ministers of Foreign Affairs, Justice, Transparency & Human Rights and Citizen Protection.

c. The Source of Funds Investigation Unit (SFIU). In addition to the President, the SFIU comprises two (2) Board Members of the Authority. At the end of every year, the Unit submits an activities report to the Institutions and Transparency Committee of the Hellenic Parliament and the Ministers of Finance and Justice, Transparency & Human Rights.

The president is an acting Public Prosecutor to the Supreme Court appointed by a Decision of the Supreme Judicial Council and serves on a full –time basis.

The effectiveness of this Committee Constitution in question is judged as sufficient based on the statistics which are available on [http://www.hellenic-fiu.gr/index.php?option=com\\_content&view=article&id=54&Itemid=63&lang=en](http://www.hellenic-fiu.gr/index.php?option=com_content&view=article&id=54&Itemid=63&lang=en). But there is no available information concerning the cooperation of this UNIT and its activation with other bodies in international level.

### **Financial Public Prosecutors**

For the assistance of the ministry of Finance employees work, State determined the Financial Public Prosecutor institution, which practices concrete duties. More specifically in the articles 2 and 3 of the Law 3943/2011 (A' 66), titled «Financial Crime Public Prosecutor» are fixed that «in the duties of Financial Crime Public Prosecutor, whose competence is extended in all the Hellenic Territory, belong the surveillance, the guidance and the coordination of the general preliminary examination employees action according to article 33&1 of the HPPP, referring also to specialized preliminary investigation employees and in particular employees of SDOE, Custom Offices, ELYT (Control Custom service) and of tax evasion control mechanisms of ministry of Finance in general, during the conducting of searches, preliminary examination or preliminary investigation on the verification of performance of all kinds .....».

Reflection creates the wording of this legal provision. In accordance with paragraph 4 of the said article the Financial Crime Public Prosecutor is informed of all the complaints and information coming to the services referred in paragraph 3 that are under its jurisdiction. But in these services are not included Financial Police of the HP as also the HCG.

This discussion is confirmed and by the wording in the explanatory statement of the law where is expressly stated that «.....the Financial Crime Public Prosecutor supervises, directs and coordinates the actions of General or of Specialized tax evasion control mechanisms employees of the ministry of Finance, Customs, SDOE, ELYT, etc.....», where also is not mentioned the HP and the HCG.

Of course in paragraph 3 are included the General and Specialized preliminary investigation employees of article 33 paragraph of the HPPC including the HP and HCG employees. Therefore is obvious that the Financial Crime Public Prosecutor regarding criminal offences and offences related to financial crimes oversees all the preliminary investigation employees from any agency as also reveals and from paragraph 5 of the same article.

Besides above it must be mentioned that in Hellas the juridical and legislative power are completely controlled by the executive power and concretely by the Government. The last one legislates and also selects the juridical leadership in order to control the justice imposition in critical sectors that is interested about.



Recently the topicality in Hellas was occupied by resignations submission of the responsible Financial Crime Public Prosecutors, which finally recalled. The public prosecutors in question invoked interventions and indications from various factors in critical affairs/cases they handled, with regard to the perpetration of serious financial offences. This incident is indicative about the situation and the mentalities that prevail in Hellas in particular and not only sectors (Kalarrytis L. 2012) (Kalampaliki G. 2011), (Aulonitis A., 2011 and 2012)

It is marked that the Hellenic justice has asked from the Hellenic Government to take measures against the tax evasion and more specifically to be modified article 99 that concern bankruptcy (Bankrupt Code), changes in the legal regime of custodies that concerns the tax evasion (Kathimerini, 2011) etc.

### **Necessity of a Single Authority Establishment**

From the above and in particular the services multiple number in combating financial crime and thus the split but also the overlapping of competencies arises the need for a single Authority establishment in combating financial crime.

This authority which will operate on the standards of the Internal Revenue Service (IRS-USA), corpe which in addition to the taxes collection is also acting against financial crime, or of the standards of the Italian financial police, which is consisted by 78.000 employees and has 600 patrol boats and 100 aircraft. Head of this single authority will be a public prosecutor who will coordinate human resources and actions of the scattered today services in financial crime.

In particular is necessary to be consolidated the following sections or individual services:

A.-the financial departments of HP security directorates. As is being known the police officers are trained in investigating issues (seizures, evidence collection, supervision, etc.) but also in direct (and armed) intervention (body and other surveys, presentations, arrests etc.) and thus can effectively handle the affairs in the field of action. They also have great experience in matters of international police cooperation with other police international agencies (Interpol, Europol) and have access to international databases such as Schengen etc.

B.-of SDOE, since that is the main body in combating financial crime especially in the form of great tax evasion and smuggling.

C.- the directorate of Hellenic Police Cyber Crime Unit since the spread and interface through the Internet but also the use of modern electronic media is a daily phenomenon in the part that concerns financial crime.

D.-Of ELYT since this service is limited to the investigation of competence offences concerning smuggling while for other related crimes (money laundering, forgery, overpricing, using false fictitious invoices) responsible authorities are YPEE and DOY. Consequently is absolutely necessity the complete and not the piecemeal affairs management which will be achieved primarily through the direct cooperation of the relative departments.

E.-of the Economic Inspection since its competencies is the supervision and control of DOY, the management and financial control of legal persons, of the local governments (OTA), of finance employees economic property origin, of the national endowments, and therefore cooperation with other services - such as the SDOE or with the Financial Intelligence Unit - are necessary because in many cases is required parallel control in information or findings relating to the subject (e.g. fake or fictitious invoices, taxes/duties evasion, etc.), and for that reason information and cooperation must be immediate.

F.-of the Inspectorate of Health and Welfare Body since in the health area there is a great waste of public money.

Z.-of the Control Health Costs Service of Social Security Institutions.

H.- of the FIU referred in article 7 of law 3691/2008 (A' 166) on money laundering, the role of which is key on unravelling of a major series financial crimes which are also connected with other crimes, such as terrorism.

With the establishment of the single Authority can be reached direct cooperation and better coordination the services. This will help:

a) In a better information flow, management and elaboration. Today is not uncommon in a smuggling case to be engaged ELYT as far as customs part and SDOE for the part on money laundering or of false or fictitious tax information, but also the Economic Inspection on the part of official crimes committed by employees, e.g. Customs employees involved.

Many times the engaged services hold a piece of the case which if is joined with the other can result better and more directly results in all the dimensions. The most serious here is that none of the above services has statutory obligation to inform the relevant State services on other similar offences.

b) In better distribution and operation of human resources. The consolidated into sub-domains service means that can become functional allocation of human resources both in numerical terms and more importantly in quality. The establishment of action teams each time by the appropriate staffing of all the required specialties ensures speed, efficiency and elaboration of human resources required each time. It is no coincidence that in all the meetings, either in Hellas or abroad, of identical prosecuting services, countries like Germany, the Netherlands, Switzerland, and Bulgaria appear with detachments in which a Public Prosecutor is involved, a Customs Officer, a DOY employee and a Police Officer.

Furthermore SDOE is not online connected with both databases exist, i.e. Taxis (DOY) and ISIS (Customs). Namely there are two systems of the ministry of Finance which do not have access among them but also not in Schengen database, with result to be requested information via the Hellenic Police.

Head of the single Authority must be an active Public Prosecutor (Financial Crime General Public Prosecutor) assisted by regional public prosecutors. The role of the Prosecutor as Head of the single prosecuting financial crime Authority will be comprehensive as:

A.- Will deal on a daily basis with many procedural and all kinds of legal problems plaguing financial prosecution services and will provide direct and legal orders - directives.

B.-Will actively participate in the forming of criminal file of proceedings with specialized legal issues arising there, such as accusation formation, documents validity, seizures, evidence collection in general, the application of fragrant crime for which employees refer to the Prosecutor's Office, etc.

C.-Will prevent with its presence and the constant monitoring of the affairs, any symptoms of corruption that may occur to members of the prosecuting authorities.

This proposal would be a very good solution in combating finance crime in Hellas was examined by the Hellenic Government in 2010 but did not further promoted for implementation (<http://www.tovima.gr/finance/finance-news/article/?aid=310294>).

## **European Union Organizations**

### **Europa**

By EU Council Decision of 6 April 2009 [OJ L 121, 15-05-2009] which came into effect on 01.01.2010, replaced the provisions of the Convention establishing the European Police Office ("Europol Convention") [OJ C 316, 27-11-1995] Article K.3 of the Treaty on European Union [Korontzis T. (2011) 'd'].

The objective of Europol according to article 3 of the above mentioned decision is: «to support and strengthen action by the competent authorities of the Member States and their mutual cooperation in preventing and combating organized crime, terrorism and other forms of serious crime».

Europol's competence according to article 4 of the same decision shall cover organized crime [document 6204/2/97 ENFOPOL 35 REV 2 issued by EU Council and Law 3975/2010 (A' 158)], terrorism and other forms of serious crime as listed in the Annex (trafficking in human beings, drugs trafficking, illegal immigration, maritime piracy, etc) affecting two or more MS in such a way as to require a common approach by the MS owing to the scale, significance and consequences of the offences.

It must be noted that in order to be simplified the information and intelligence exchange between Law Enforcement Agencies (LEAs) of EU MS has been adopted the Framework Decision 2006/960/JHA of 18 December 2006 [OJ L 386, 29-12-2006].

The main activity of Europol is to support MS in collection, analysis and distribution of information related to crime and to coordinate operations.

MS encountered specific criminal phenomenon that affects two or more EU MS may ask Europol to open similar topic (Focal Point) to support investigations in this area. Europol provides assistance on current operations through two Analytical Work Files (AWF) [Serious Organized Crime (SOC) and Counter Terrorism (CT)] where have been developed 23 themes [Focal Points (FP)] for illegal activities within the circle of competence (Korontzis T. 2012 'f')

Important activity that is developed by its staff is the participation with a support role in Joint Investigation Teams (JIT) [Korontzis T. 2012 'a'] in order to provide assistance on all activities and to exchange information with all the members of the JIT but without to participate in coercive measures.

According to article 5 Europol shall have the following principle tasks:

- a) To collect, store, process, analyze and exchange information and intelligence (operational statistics are available on <https://www.europol.europa.eu/content/page/operational-statistics-1847>).
- (b) To notify the competent authorities of the MS without delay via the national unit referred to in Article 8 of information concerning them and of any connections identified between criminal offences;
- (c) To aid investigations in the MS, in particular by forwarding all relevant information to the national units;
- (d) To ask the competent authorities of the MS concerned to initiate, conduct or coordinate investigations and to suggest the setting up of joint investigation teams in specific cases;
- (e) To provide intelligence and analytical support to MS in connection with major international events;
- (f) To prepare threat assessments, strategic analyses and general situation reports relating to its objective (Europol Review 2012) including organized crime threat assessments.

3. Europol shall have the following additional tasks:

- (a) To develop specialist knowledge of the investigative procedures of the competent authorities of the MS and to provide advice on investigations;
- (b) To provide strategic intelligence to assist and promote the efficient and effective use of the resources available at national and Union level for operational activities and the support of such activities.

Additionally, in the context of its objective under Article 3, Europol may, in accordance with the staffing and budgetary resources at its disposal and within the limits set by the Management Board, assist MS through support, advice and research in the following areas:

- (a) The training of members of their competent authorities, where appropriate in cooperation with the European Police College;
- (b) The organization and equipment of those authorities by facilitating the provision of technical support between the MS;
- (c) Crime prevention methods;
- (d) Technical and forensic methods and analysis, and investigative procedures.

5. Europol shall also act as the Central Office for combating euro counterfeiting in accordance with Council Decision 2005/511/JHA of 12 July 2005 on protecting the euro against counterfeiting, by designating Europol as the Central Office for combating euro counterfeiting (OJ L 185, 16.7.2005, p. 35) Europol may also encourage the coordination of measures carried out in order to fight euro counterfeiting by the competent authorities of the MS or in the context of JIT [Korontzis T. 2012 'a'], where appropriate in liaison with Union entities and third States bodies. Upon request, Europol may financially support investigations of euro counterfeiting.

Concerning the combating of finance crime (SOCTA 2013) relative is the Unit O3 of Europol (Criminal Finances & Technology). The Criminal Finances and Technology Unit has a dual vocation. On the one hand this consists of the delivery of expertise and scalable and sustainable solutions throughout the department on financial intelligence handling, criminal asset recovery and computer forensics. On the other hand it provides analytical and operational support to MS LEAs covering the whole range of financial and hi-tech crime phenomena and related offences, such as the sexual exploitation of children on the internet. In doing so O3 applies the Intelligence Led Policing concept to all its projects, with a strong focus on pursuing the proceeds of crime whilst effectively disabling organised criminal networks.

O3 reflects by excellence the multi-agency and multi-disciplinary character of Europol as it gathers people with very different law enforcement backgrounds, such as police, gendarmerie, customs and regulatory authorities, and utilises their diverse qualities to focus on the menace of serious and organised crime. O3 provides a unique platform for officers from 17 different MS harmoniously working together, and as such adds an entirely new dimension to the notion of international law enforcement cooperation. The Criminal Finances and Technology Unit stands for professionalism, highly specialised expertise, quality service, full cooperation with our LEAs partners and dedication to their objectives

### **Serious Organized Crime, Analytical Work File Focal Point relative to Finance Crime**

AWF Sustrans (opening date 26/11/2001): AWF Sustrans targets criminal organizations involved in money laundering activity and related offences. It does this by analyzing three main sources of information: suspicious transaction reports (STRs) filtered by law enforcement authorities, currency transaction reports mainly provided by Customs, and operational information from ongoing money laundering investigations.

The activity conducted by Europol in relation to suspicious transaction reports complies with political direction given by the Treaty of Amsterdam, Article 30(1)(b).

The European Suspicious Transaction Reporting network (€STR) is part of the money laundering project.

AWF Copy (opening date 30/01/2008): AWF Copy is concerned with intellectual property theft (IPT), also known as intellectual property rights infringement (IPRI). It tackles organized crime networks engaged in the manufacturing or trading of counterfeit goods and product piracy (except cigarettes and tobacco products), including all related financial aspects thereof.

Counterfeiting is the offence linked to industrial property rights such as trademarks, patents, designs and models. Piracy is a violation of copyrights which covers literary and artistic works such as film, musical work and software programmes.

IPT generates huge profits which are used for other areas of organized crime. In addition there is a risk to public health and safety from counterfeit medicines, foods, spare parts, etc.

AWF MTIC (opening date 2/4/2008): AWF MTIC (Missing Trader Intra-Community Fraud) aims to assist member States in identifying or dismantling organised criminal networks involved in MTIC fraud and/or tracing and confiscating the proceeds of MTIC fraud.

The essence of missing trader fraud is that through a chain of linked companies the fraudsters sell goods from one Member State to another, with no VAT being charged when the goods cross an EU border. Then at some stage these goods are traded within a Member State and VAT is charged, but this is not passed over to the fiscal authorities, and the company responsible then disappears.

AWF Smoke (opening date 25/04/2005): The purpose of AWF Smoke is to support competent authorities in preventing and combating the activities of organized crime networks engaged in the unlawful manufacturing and trafficking of cigarettes and tobacco products. Europol has the status of Observer within the Customs Co-operation Working Party (CCWP). At a strategic level the objective is to assist EU Customs in their third pillar strategy by means of consecutive Action Plans. This is done by participation in different Project Groups which are tasked by the CCWP according to the Action Plan.

At operational level the aim is to provide assistance and liaison for all OC Units in Joint Customs Operations (JCO).

Mass Marketing fraud targets individuals or companies, as opposed to vertical fraud which targets the state. The aim is to explore the feasibility of creating a platform for pan-European integrated analysis, enabling law enforcement agencies to operate in a more flexible and proactive way towards emerging serious trends in horizontal fraud.

O5 is the Unit that deals with Forgery of Money. Within the unit are currently four Focal Points (FP), formerly known as Analytical Work Files (AWFs):

Cyborg - Cyber crime: Preventing or combating the forms of criminality within Europol's mandate associated with internet and ICT (information and Communication Technology) related Organized Crime. More specifically the focus will be on the crimes defined in Articles 2-8 of the Cyber Convention.

Soya - currency (euro) counterfeiting: Targeting criminal groups, involved in the production and uttering of counterfeit currency, specifically the Euro currency.

Terminal other means payment of fraud: Targeting networks consisting of individuals involved in fraudulent activities related to payment card fraud. From Europol's annual review issued on 2013 reveals that the percentage of operations which had its support in Hellas was 2.0, percentage which certainly can be improved (Europol Review 2013, p. 34) as there are MS that have a percentage higher than 10.0.

From the same review reveals that there was not any support to the Hellenic competent authorities in combating finance crime as they had not requested such a thing and also they had not been involved in operations occupied two or EU MS.

Thus there are clearly margins for improvement of the expertise provided by the European Agency in combating financial crime as Hellas has not exploited Europol's capabilities and knowhow provided by this organization. Moreover, Hellas is a member of the south eastern hub of criminal activity in the EU with gravity centre this along with Romania and Bulgaria (Europol Review 2013, p. 96),

## **Eurojust**

Eurojust was established by the EU Council Decision of 28 February 2002 «setting Eurojust with a view to reinforcing the fight against serious crime» [2002/187/JHA, L 63/27].

According to article 3 of the above mentioned decision the objectives of Europol are:

- (a) To stimulate and improve the coordination, between the competent authorities of the MS, of investigations and prosecutions in the MS, taking into account any request emanating from a competent authority of a Member State and any information provided by anybody competent by virtue of provisions adopted within the framework of the Treaties;
- (b) To improve cooperation between the competent authorities of the MS, in particular by facilitating the execution of international mutual legal assistance and the implementation of extradition requests;

(c) To support otherwise the competent authorities of the MS in order to render their investigations and prosecutions more effective.

2. In accordance with the rules laid down by this Decision and at the request of a Member State's competent authority, Eurojust may also assist investigations and prosecutions concerning only that Member State and a non-Member State where an agreement establishing cooperation pursuant to Article 27(3) has been concluded with the said State or where in a specific case there is an essential interest in providing such assistance.

3. In accordance with the rules laid down by this Decision and at the request either of a Member State's competent authority or of the Commission, Eurojust may also assist investigations and prosecutions concerning only that Member State and the community.

Eurojust competences according to article 4 are:

1. The general competence of Eurojust shall cover:

(a) The types of crime and the offences in respect of which Europol is at all times competent to act pursuant to Article 2 of the Europol Convention of 26 July 1995;

(b) The following types of crime:

i) Computer crime,

ii) Fraud and corruption and any criminal offence affecting the European Community's financial interests,

iii) The laundering of the proceeds of crime,

iv) Environmental crime,

v) Participation in a criminal organization within the meaning of Council Joint Action 98/733/JHA of 21 December 1998 on making it a criminal offence to participate in a criminal organization in the Member States of the European Union (OJ L 351, 29-12-1998, p.1);

(c) Other offences committed together with the types of crime and the offences referred to in points (a) and (b).

Concerning the crimes categories of which combating is a priority in Eurojust cases relatives are the tables 5 and 6 of the Annual Report 2011 of Eurojust in the period 2010-2011 AVILABLE

ON  
<http://eurojust.europa.eu/doclibrary/corporate/eurojust%20Annual%20Reports/Annual%20Report%202011/Annual-Report-2011-EN.pdf> p.p. 73-74.

2. For types of offences other than those referred to in paragraph 1, Eurojust may in addition, in accordance with its objectives, assist in investigations and prosecutions at the request of a competent authority of a Member State.

1. In order to accomplish its objectives according to article 5 Eurojust shall fulfill its tasks:

(a) Through one or more of the national members concerned in accordance with Article 6, or

(b) as a College in accordance with Article 7:

(i) When so requested by one or more of the national members concerned by a case dealt with by Eurojust or

(ii) When the case involves investigations or prosecutions which have repercussions at Union level or which might affect MS other than those directly concerned, or

(iii) When a general question relating to the achievement of its objectives is involved, or

iv) When otherwise provided for in this Decision [Eurojust activities (Annual Report of 2011) are available on 2011

<http://eurojust.europa.eu/doclibrary/corporate/eurojust%20Annual%20Reports/Annual%20Report%202011/Annual-Report-2011-EN.pdf>].

Also when it fulfills its tasks, Eurojust shall indicate whether it is acting through one or more of the national members within the meaning of Article 6 or as a College within the meaning of Article 7.

Also can request the establishment of JIT [Korontzis T. 2012 'a'), as also its members to participate in this. Its role in the establishment and successful activation of JIT is crucial. It is provided the possibility as reveals from its institutional framework through its

national Members but also as collegiate body to invite the competent national authorities to establish JIT where considers is necessary (article 4 paragraph 1 Law 3663/2008). At JIT Eurojust provides administrative support as the coordination meetings held at its premises in The Hague, Netherlands.

MS have the ability to nominate their national representatives to participate in JIT and in such a case would not represent Eurojust but the member state from which it comes. Eurojust has the possibility to participate as a collective body to JIT nominating in this case the member who will represent something which is provided in article 9& 3 of 2002/187/JHA of 28 February 2002.

It must be noted that concerning JIT Eurojust after signing cooperation memorandum with the European anti-fraud Office (OLAF) concerning fraud or other offences affecting the financial interests of the EU, when one of the two organizations participate in JIT for such offences shall inform the other institution and propose to the MS recommended JIT to invite respectively and the other organization [Eurojust 2013, 'a'].

Eurojust relations with Europol are regulated on the basis of the memorandum of cooperation signed between them [Eurojust 2013, 'b'].

In general and as far as concerns Hellas activities regarding participation in cases handled by Eurojust, study of statistics from period 2010-2011 (there are not provided concrete evidence In combating finance crimes) (<http://eurojust.europa.eu/doclibrary/corporate/eurojust%20Annual%20Reports/Annual%20Report%202011/Annual-Report-2011-EL.pdf>) reveals the following:

A.-In Figure 2 p. 70 is depicted the number of bilateral and multilateral cases entered by each national bureau in 2011 and in which the Hellenic presence is satisfactory.

B.-In Figure 7 p. 75 is depicted how many times each MS requested the assistance of Eurojust in 2010 and 2011 and in which the Hellenic presence is satisfactory.

C.-In Figure 8 p. 76 is depicted how many times requested the assistance of the authorities in each Member State through Eurojust in 2010 and 2011 and in which the Hellenic presence is satisfactory.

D.-In Figure 10 p. 78 is depicted the number of cases for which was necessary a coordinating meeting on request for assistance per Member State or third country in 2010 and 2011 and in which the Hellenic presence is considered as low.

E.-In Figure 11 p. 79 is depicted the number of coordination meetings during 2010 and 2011 involving authorities at all MS in cases requiring coordination assistance after request that was accepted and in which the Hellenic presence is satisfactory.

A survey of the records of that organization in collaboration with the National Bureau of Hellas at Eurojust in order to be recorded the participation of Hellenic LEAs as also and of judicial authorities in specific activities as JIT, coordination committees etc refereed always in combating financial criminality revealed that the activities of the Hellenic LEAs and the Hellenic judicial authorities in terms in combating financial crime is almost nonexistent.

From the above it is concluded that there are capabilities for improvement on the part of Hellas concerning the elaboration of know-how provided by the European Agency in combating criminality at EU level.

## Conclusion

From the juxtaposition of the above legal provisions arise the following interesting points:

There are three major administrative formations (SDOE, HP, HCG) in combating financial crime and cybercrime and the FIU in combating money laundering and financing of terrorism. The first one (SDOE) has jurisdiction throughout the Hellenic territory and the remaining two (HP, HCG) in specific territorial areas as are determined by the relevant legal provisions. At the same time there is also FIU. Self-explanatory is created the well-known

phenomenon that characterizes the problematic Hellenic public administration, competencies duplication.

In periods that the Hellenic economy lacks resources, creates questions what kind of needs led to the establishment of a new agency to combat/prosecute the financial criminality. Need which means recruitment of new qualified staff and supplies appropriate equipment in order the specialised staff to exercise effectively the competencies assigned them by the State. And if there were these resources why they did not allocated to staff SDOE services?

As reveals from the legislation, the control mechanisms on combating financial crime exist and are sufficient. What every time is looking for is their effectiveness.

Establishment and merge all of the bodies and services in a single service in the form of a single Authority as mentioned earlier, staffed with trained and specialized professionals under the supervision and guidance of the competent financial public prosecutor, could lead to best practices in combating financial crime.

The argument that the establishment of new services with related prosecuted work subjected in different bodies and ministries leads through the competition to a fullest combating of finance criminality is not tenable. Besides the fact that there is no evidence to confirm this claim and the confusion caused to citizens by the existence of many joint jurisdiction services Hellas has many control mechanisms but their results in combating finance criminality cannot be considered as satisfactory.

In addition the report of the task force for Hellas (2011) mentions the need for institutional reform in tax administration, redeployment of staff with target debts collection and checks realization as also the reorganization of all the central functions and services of tax administration.

Also is required the enlargement of the competent authorities cooperation with other similar services in abroad in combating international finance criminality crime but also with the respective European organizations, cooperation which cannot be characterized as satisfactory.

It remains to be evaluated the activation of the controlled mechanisms in combating finance crime over the coming years – as a right staff public policy planning requires –and under adverse financial conditions for the citizens and Hellas and subsequently in the case that the desired results do not come to be redeveloped the area in combating financial crime in the direction mentioned above which may be the best holistic approach for achieving best results.

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# ECONOMIC DECISIONS OF LATVIAN RURAL ENTREPRENEURS: INTERPRETATION OF MODERN SOCIO-ECONOMIC DISCOURSES

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## Abstract

The basic assumption of European social science tradition is a conclusion that every decision made by an individual or an organization is well-founded and rational. The uppermost thesis of classical economics is a desire of every economic entity to attain maximum income by applying minimum possible resources. Hereto, income is usually defined by fiscal indices. Modern economics theories confirm that economic decision making processes can be explained more precisely with concepts of behavioural economics. Agents who make economic decisions are “rationally bounded” and elements of social positioning possibly exceed values expressed in categories of economic utility. The objective of this article is to prove that economic decisions made by Latvian rural entrepreneurs can be explained with the help of modern theories of social science that complement classical thought with an interdisciplinary view on socio-economical processes.

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**Keywords:** Behavioural economics, bounded rationality, economic decisions, social hierarchy

## Introduction:

The basis of the scientific tradition established globally is a conclusion that classical economics theory treats rationality mostly as a desire of each economic entity to attain maximum benefit with minimum possible resources. Hereto, income is usually defined in the terms of fiscal indices i.e., money. Nevertheless, daily empirical view of processes and phenomena certifies the fact that economic decisions are not entirely based on exact economic calculations. There is a substantial number of other factors impacting decision making processes of both individuals and organizations and they are socially, psychologically and culturally determined. Therefore, classical economics models act as a common doctrine in explaining economic processes but lack adequacy when analysing concrete and real economic decisions. Without understanding significant social and other factors, a classical economics discourse substantiating decisions made by individuals and economic organizations will not be adequate and correspond to real life processes. The task of the research is to explain processes happening in the society in a truthful way. Hence, if decisions made by economic entities are determined by a complex value system that exceeds and deviates from paradigms of classical economics theories, the task of the research is to study all possible factors that impact a decision making process. Consequently, the research process acquires an interdisciplinary view or, in other words, the classical research set of instruments has to be enriched with new concepts and cognitions.

When analysing economic decision making process impacted by interests of an individual or a group we can state that empirical observations and cognitions expressed by economic agents do not confirm with the rationality principle of positive economics. In the attempt to explain the contradiction between the classical rationality dogma of economic decision making and empirical reality, behavioural economics, a new sub-division of socio-economic theory, was formed. Its task is not to contradict but to enrich the thought system of classical economics theories with cognitions of other social sciences in order to explain economic activities of economic agents in a more truthful way. Behavioural economics changes the notion of rationality from abstract construction to a model explaining daily decisions. As a result, one can explain economic actions of economic subjects by applying behavioural economics apprehension discourse.

Economics is a science where performance of laboratory experiments in order to validate hypothesis of the study, is almost impossible. As a result, its set of research instruments differs from the one applied in natural sciences. The research process, especially on a microeconomics level, has to be carried out in the environment where economic activity subjects both act and make decisions. In-depth interviews, subjective reflections of respondents and their theoretical conceptualization become a set of scientific research instruments.

This aspect makes the study of rural manufacturers especially interesting. Agriculture has got a number of peculiarities making it different from other industries of national economy. Rural entrepreneurs are attached to a specific territory, they usually live in a relatively closed social environment, and they possess manufacturing means that are limited in absolute terms (such as the land) or are relatively expensive (such as agricultural machinery). Rural entrepreneurs in the EU countries operate within restricted competitive conditions and gain substantial subsidies from transnational regulatory bodies. Agricultural entrepreneurship encompasses both gains from economic activities that can be classically interpreted and immaterial income such as rural lifestyle.

In view of aforementioned managerial peculiarities of rural entrepreneurs, well-founded explanations of economic decisions made by rural entrepreneurs and consecutive scientific interpretations serve as a successful example for further and more generalised substantiation of comprehension concepts involving socio-economic processes.

### **Theoretical Assumptions:**

Behavioural economics as a scientific sub-division has got a relatively long history. Already centuries ago, philosophers understood the complexity of the decision making process that was not subjected to rationality. When making decisions including economic ones, people follow not only the desire to gain maximum benefit by applying minimum resources but also a number of other social, political, psychological and emotional factors.

### **Bounded rationality concept**

One of the most quoted management science authors is the 1978 Nobel Memorial Award winner Herbert A. Simon whose contribution is legitimization of the bounded rationality concept. He believed that limitation on human rationality and calculation existed “by the disparity between the complexity of the world and the fitness of human computational capabilities” (Simon, 1997, p.319).

Simon regarded the decision making process as a complex set of activities not falling within interpretations of a single scientific discipline. The neo-classical economic rationality within daily practices can contradict the person’s social objectives, limited available information or the total educational level. Simon shifted the decision making process from a one-dimensional rational viewpoint to a complex systems approach. The Simon’s

interpretation of the decision making process as an element of “social architecture” is of special importance since it highlights the complex nature of economic decisions.

According to Simon, the bounded rationality theory “does not come from the assumption of rationality but rather from the assumption that rationality is, at least in some important respects, bounded” (Simon, 1997, p.332). Also, Simon advanced a thesis that was later incorporated in the theory of behavioural economics: in the decision making process, actors are simultaneously led both by short term immediate challenges and long term comprehensive thinking (Simon, 1983, p.12). Simon especially stressed the knowledge and level of perception that the decision maker was endowed with. The decision maker can operate solely within the boundaries of a familiar social field and on the basis of the volume of available information; thus, constructing an individual rational assumption instead of an absolute one.

Those judgements, despite being in conflict with the comprehensive rational behaviour concept of neoclassical economics theory, have formed nowadays a basis of a separate subdivision of economic thought and gained a status of economic school by being able to explain empirical data supported through household practices with the help of behavioural economics concept developed by Simon.

### **Conspicuous consumption**

The consumption process can be referred to both common products necessary for the provision of human existence and manufacturing means and long term commodities. The objective of the consumption can be equally to meet immediate needs and, on a more complex level, to present a social status, as an example.

The scientific study of consumption process has got a relatively long history. Back in 1899, Thorstein Veblen revealed the complex nature of conspicuous consumption in his book “*The Theory of the Leisure Class: An Economic Study in the Evolution of Institutions*” (1899). T. Veblen wrote that by acquiring goods unnecessary for daily survival, the social agent demonstrated his economic power and belonging to a certain higher social class (Veblen, 1899). The acquired goods thereby possess functions of both economic utility and social representation. The products representing prosperity can be obtained by financially secured market players. Moreover, those products carry a certain status of luxury goods. Whereas founders of the conspicuous consumption theory T. Veblen (1899) and P. Nystrom (1928) regarded luxury goods of mass consumption as status goods, with the development of national economy and improvement of the quality of life, manufacturing means also became representative products to demonstrate a higher social status (Trigg, 2001, pp. 99-115).

### **Positional goods**

Continuing the discourse on the social nature of consumption, Fred Hirsch (1976) defined characteristics of positional goods: they could be both products and services, the consumption of which relate to the user’s place within the social hierarchy. With the improvement of the entire well-being, products and services increasingly fulfil a representation function of the social hierarchy instead of a sustainable survival function of an individual or an organization. On the one hand, it promotes an ongoing development of the national economy to meet the needs of continuously increasing consumption; on the other hand, an unlimited consumption of positional goods threatens the depletion of natural resources and the raise of social inequality.

In the context of modern economics theory, the discussion on the attribution of real estate, including the land, to the status of positional goods is of special importance. The products of limited availability should be certainly attributed to positional goods. With regards to real estate, its territorial placement allows it to be included among such products. In its turn, the discussion on the land employed in agriculture, is a more complex one. On the

one hand, the land resources are limited within a territorial and, consequently, a social field and, hence, the owner of those resources is both economically and socially privileged. On the other hand, the property of positional goods is mainly characterised by a high social status and economic prosperity. Rural entrepreneurs have often acquired the land historically and they treat it not only as manufacturing means but also a lifestyle instrument. Nevertheless, the modern development of the industry increasingly positions the land resources as insufficient to ensure sustainable development of a rural farm; hence, shifting the land to the comprehension of positional goods and presenting the owner of agricultural land as somebody who occupies a high social status, at least in the hierarchy of its social field.

### **Prospect theory in economics**

Nowadays Daniel Kahneman can be regarded as the most splendid representative of behavioural economics. He enriched the belief system of behavioural economics with a number of cognitions, of which Prospect theory was presented with the Nobel Memorial Award in 2002. Kahneman continued to develop the theory of cognitive diversity of decision making rationality. The theory developed in partnership with Amos Tversky ( Kahneman, Tversky, 1979, pp. 263-327 ) confirmed the following: in making economic decisions, agents did not apply equal importance to probabilities of opportunities and losses. The decision making mostly takes place on impulse and on the basis of the historic experience that does not always reflect the existing reality. The possibility to avoid losses is regarded as proportionately more significant than the possibility to gain additional income under equal, unknown probabilities.

### **Research Methodology:**

A valid methodological approach is a part of scientific study. Socio-economic studies cannot be carried out in laboratories and confirmed through the method of experiment. Nevertheless, a set of instruments has been developed in modern times, allowing to prove conceptual constructions with empirical data.

Vernon L. Smith (1982) developed the theory of experimental economics that enriched theoretical assumptions with analysis of empirical results. The agents of socio-economic processes act in real economics and the decisions made by them cannot be replicated in laboratories. The parameters modelled in the study process do not always correspond to real economic practices. Hence, empirical data such as statistics on a macro level and polls and participatory observations on a micro level can be regarded as methodologically acceptable analytical tools.

With the objective to find out the rationality of economic decisions made by Latvian rural farms in the context of neoclassical economics theory, 44 rural farms were surveyed between September 2011 and June 2013. The subject of the study were large-scale farms which manage minimum 300 hectares of farm land and regard themselves as participants of the food commodities' market, and which have been granted subsidies by the institutions of the European Union for both rural management and the purchase of agricultural machinery.

Responses to questions of an unstructured interview and self-reflections of respondents form the set of the studied data. The study demonstrated that it was not only the formal owner of the farm but also the spouse and other employees of the farm playing a significant role in the decision making process, which is comprehensible in the context of rural manufacturing.

It should be specially noted that the manufacturers of Latvian large-scale farms were the study subject, a priori occupying the highest hierarchical position of the respective social field.

**Findings:**

Thirty four farm representatives or 77% of the targeted farms realize and during the interviews acknowledge the fact that the purchase of agricultural equipment, subsidized by institutions of the European Union, is not subjected to such factors as the lowest possible price or a potentially higher productivity output being the most essential reasons for choosing particular entities. The decision to purchase particular means of production is equally impacted by such equipollent social argument as a status assigned to the equipment by neighbours. The desire to occupy a social status above one's neighbours is the key factor in choosing the particular model of agricultural equipment. The labour productivity characteristics of the equipment play a secondary role. The treatment of the above written in terms of economics theory is an outcome that managers of Latvian rural large-scale farms utilize support programmes of the European Union in the purchase of positional goods. If the purchase of status goods is described as irrational in terms of national economy, then it is logical to ask why the support programmes of the European Union have to finance, at least partially, the acquisition of such products. Surely, a theoretical mechanism has been developed to prevent an acquisition of positional and status goods in the form of a tender where the equipment with the lowest price is deemed to be the winner. However, according to 39 ( 89 % ) of the respondents, such tender has got a formal status.

The statement made by interviewers during informal interviews of such choice being irrational did not convince respondents for their response arguments mainly confirmed the conceptual thesis of "bounded rationality": rationality comprehension was ambiguous and could not be measured in terms of economic parameters.

It is noteworthy to share the following conclusion of the study: at the moment of purchasing the equipment as part of rural support programmes of the European Union, only 6 of the 44 interviewed managers of Latvian rural large-scale farms or 14% considered such economic categories as the equipment's value at the end of its depreciation period and the possibility to resell it for an appropriate price. Thus, it serves as an illustrative cognition of the prospect theory that short-term priorities of decision makers prevail over long-term utility aspect.

**Conclusion:**

Throughout the course of the study, there was a strong presence of the contradiction between the desire to support the development of rural farms with the objective to ensure long-term development of rural enterprises as expressed by institutions regulating agricultural policy of Latvia as the European Union country and the comprehension and real economic decisions of farmers that could be only explained with concepts of behavioural economics and that were more socially than economically orientated.

Consequently, the problem of agricultural support methods and forms funded by tax payments of member states remains unsolved and requires further study.

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# THE SHARE OF INTENSIVE AND EXTENSIVE FACTORS ON THE GDP DEVELOPMENT OF SELECTED EU COUNTRIES<sup>12</sup>

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## Abstract

The paper introduces new methodology how to count the share of intensive factors (total factors productivity) and extensive factors (total input factors, TIF) on the GDP development. The methodology is applicable for all possible developments and not only for growth of GDP as in case of growing accounting equation. The methodology is used for investigation of intensive and extensive development of selected EU countries with history of socialistic regime. The development of TIF is further divided on the development of labor and capital. The results are compared with results achieved for EU-15.

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**Keywords:** GDP development, intensive and extensive factors, total factor productivity, total input factors, labor, capital

## Introduction:

The comparison of the GDP development of different states enabling the identification of the ways resulting growth, decline or stagnation belongs to the permanent solved issue of economic analysis. Generally speaking, GDP development can be achieved by intensive or extensive ways or by their combination. Intensive development is based on the innovation and is seen as qualitative ones. The extensive development, based on the increasing units of inputs, must, at certain point, meet with the limit of scarce resources. It is not also able to increase production without further increasing of inputs what can endanger environment, nature and even life on the Earth. The knowledge society should therefore rely on intensive factors of development, especially on innovations. The representatives of any economic system should know whether the development of the system is based on the intensive or extensive factors including the share of both factors. The growth accounting equation is usually used for measuring the shares. The equation, however has certain limitations and only allows to express the impact shares for the production growth, on condition of positive impact of both intensive and extensive factors. That is why we suggest alternative methodology how to measure the share of the intensive and extensive factors on the GDP development. Our proposed solution can express the effect of intensive factors for both growing and declining product, including the stagnation thereof, whereas it also addresses potential compensation of extensive and intensive factors, as well as corresponding effect of both factors on the production growth or decline.

The paper is organized as follows<sup>13</sup>. First our methodology of the measurement of

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<sup>12</sup> The article is one of the outputs of the specific research „Identifikace pusobeni znalostní společnosti a inovacního vyvoje ve firmách (Identification of the effects of knowledge society and firms innovation development())”, which I realized by University of Finance and Administration and financed by Ministry of Education, Youth and Sport of Czech Republic

intensive and extensive factors is introduced and the parameters of intensity and extensity are derived. The methodology is then applied for quantification of GDP development of selected EU countries (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania Poland, Romania, Slovenia and Slovakia) for the period 1990-2010. Conclusion summarizes our results.

### **Methodology: derivation of dynamic intensive and extensive parameters**

The basic shape of the national economy aggregate production function (Cyhelský, Mihola, Wawrosz, 2012, p. 38, statement (27) or Hájek and Mihola 2009, p. 741, statement (2)) is given by the plain multiplicative (geometrical) relation that expresses the product Y as the product of the total factors productivity TFP<sup>14</sup> and the total input factor (TIF):

$$Y = \text{TFP} * \text{TIF} \quad (1)$$

The national economy aggregate production function is characteristic by the fact that the value of TFP and TIF is given by the specific mix of the production types, applied technology, production efficiency and distribution of such production. Therefore, the specific value of TFP at this level is affected by the TIF structure. The determination of the level and development of TFP/TIF is the subject matter of the static or dynamic analysis.

The summary input factor TIF (Cyhelský, Mihola, Wawrosz 2012, p. 38, statement (26)) is obtained as the weighted geometrical aggregation of the two basic factors of production, i.e. labor L<sup>15</sup> and capital K. The function has characteristic of Cobb-Douglas production function and can be written as<sup>16</sup>.

$$\text{TIF} = L^\alpha \cdot K^{(1-\alpha)} \quad (2)$$

This function has constant returns to scale (Soukup 2010, p. 460), because, as the sum of the weights, i.e. function exponents, equals to 1, by increasing each of the production factors t-times, the TIF will also increase t-times.

$$t.\text{TIF} = (t.L)^\alpha \cdot (t.K)^{(1-\alpha)} \quad (3)$$

If we substitute TIF in (1) by its expression in (2), we will get

$$Y = \text{TFP} \cdot L^\alpha \cdot K^{(1-\alpha)} \quad (4)$$

The expression (4) corresponds to the special form of production function in the neoclassical model of economic growth

$$Q = \kappa \cdot f(K, L) \quad (5)$$

Coefficient  $\kappa$  from expression (5) is represent by TFP in expression (4) and function  $f(K, L)$  is aggregate function of total input factor. The fact that Solow understood the level of the used technology  $\kappa$  much more widely that just as a level of technology can be corroborated by his statement (Solow, 1957, p. 312): “The term technical change is used as a short-hand expression of any kind of shift in the production function. Thus slowdowns, speed-ups, improvements in the education of the labor force, will appear as technical change.” In case the TFP does not change and L and K increase t-times, it will be a purely extensive development (growth) corresponding to constant returns to scale. In case the growth of product Y is achieved solely as a result of changes in the TFP, it will be a purely extensive growth.

<sup>13</sup> The article is one of the outputs of specific research “Identification of effects of knowledge society and innovation development in firms” which is realized by University of Finance and Administration and financed by Ministry of Education, Youth and Sport of Czech Republic.

<sup>14</sup> Robert M. Solow (see Solow 1957) examines the steady state growth, under which the growth rate of capital and labor equalize. The production growth per capita is then subject to technical progress, which is seen as an exogenous factor here. Further elaboration of the idea has revealed that it is not just technical progress, but rather the summary effect of all intensive growth factors.

<sup>15</sup> In this paper, we will not examine the measuring methods of L or K in detail. The range of definition for all used values results from the range of definition for labor and capital  $L > 0$  and  $K > 0$ .

<sup>16</sup> The comprehensive multiplication production study with the factors of labor, capital, and technical progress is mentioned in Barro and Sala-I-Martin (1995, p. 29); this is the Cobb-Douglas production function  $Y = AK^\alpha L^{(1-\alpha)}$ .

The functions (1) and (4) represent the static task that concentrates on the GDP of specific years and counts the share of TFP and TIF (TIF divided on the share of labor and capital) for that year. The static task fully determines the aggregation method in a dynamic task which investigates the growth rate or the change coefficient of GDP and how the growth rate or change coefficient were caused by change of TFP, TIF, respective of labor (L) and capital (C). The statement (1) may easily be converted to the dynamic version of an aggregate production function expressed with the use of change coefficient

$$I(Y) = I(TFP) \cdot I(TIF), \quad (6)$$

Or with the use of growth rates<sup>17</sup>

$$G(Y) = \{[G(TFP) + 1] \cdot [G(TIF) + 1]\} - 1 \quad (7)$$

In case  $I(TFP) = 1$  and  $I(Y) = I(TIF) > 1$ , it is a purely extensive growth. The same may be achieved using the growth rates. In case  $G(TFP) = 0$  and  $G(Y) = G(TIF) > 0$ , it is a purely extensive growth. If both indices have same value greater than 1, i.e.  $I(TFP) = I(TIF) > 1$ , then  $I(Y) = I^2(TFP) = I^2(TIF)$ , which represents the so-called intensively-extensive growth. Detailed classification of all basic types of development and proposal of values of the corresponding dynamic parameters are addressed in paper (Mihola, 2007, p. 123).

Similarly, it is also possible to convert statement (2) into a dynamic version

$$I(TIF) = I^\alpha(L) \cdot I^{(1-\alpha)}(K), \quad (8)$$

Whereas the following applies for the growth rates

$$G(TIF) = \{[G(L) + 1]^\alpha \cdot [G(K) + 1]^{(1-\alpha)}\} - 1 \quad (9)$$

Furthermore, we could provide an analogous typology of the TIF development for these two relations, based on the impact of labor/capital development on such development.

If we substitute  $I(TIF)$  in (6) by its expression in (8), we will get a dynamic aggregate production function

$$I(Y) = I(TFP) \cdot I^\alpha(L) \cdot I^{(1-\alpha)}(K), \quad (10)$$

After using logarithmic calculation, it is possible to get from (10) the following statement after introducing the growth rates

$$\ln[G(Y) + 1] = \ln[G(TFP) + 1] + \alpha \cdot \ln[G(L) + 1] + (1-\alpha) \cdot \ln[G(K) + 1] \quad (11)$$

For small growth rates of up to  $\pm 5\%$ , the following statement applies sufficiently accurately<sup>18</sup>

$$\ln[G(A) + 1] \approx G(A) \quad (12)$$

By utilizing this approximate relation (12), it is possible to modify statement (10) as follows:

$$G(Y) = G(TFP) + \alpha \cdot G(L) + (1-\alpha) \cdot G(K) \quad (13)$$

The expression (12) is the basic equation of growth accounting<sup>19</sup>. It is apparent from the construction that when using the initial dynamic multiplicative aggregate production function (10) for higher change rates, it is necessary to use the precise statement (11).

The basic equation of growth accounting (13) is usually used to calculate a residual value, i.e. growth rate  $G(TFP)$ . We will certainly get an accurate result for higher growth rates as well, if we first determine  $G(TIF)$  from statement (9) and calculate  $G(TFP)$  using following statement (14) that is based on statement (7).

$$G(TFP) = \frac{G(Y)+1}{G(TIF)+1} - 1 \quad (14)$$

Statement (14) is also used to calculate the effect of the TFP development,  $G(L)$  development, and  $G(K)$  development, always linked to the development of  $G(Y)$ . This is usually performed by dividing statement (14) by the value  $G(Y)$ , whereas each of the three terms indicates the relevant effect share. However, this method may only be applied in case it

<sup>17</sup> The TFP growth rate, i.e.  $G(TFP)$ , was used by (Denison, 1967, p. 15), for example, for the purpose of an international comparison of 9 developed countries.

<sup>18</sup> When  $G(A) \pm 5\%$ , the error equals to 0.12 p. b. – i.e. 2.5% of the value.

<sup>19</sup> The calculation of the aggregate productivity of factors using this relation is addressed by a number of studies, e.g. OECD (2003), OECD (2004).

is a production growth caused by positive effects of all three factors under review. Therefore we suggest different indicators for measuring the share of intensive and extensive factors on GDP development. The indicators can be easily derived from the statement (6) by using logarithmic calculation (see Mihola 2007, pp. 123 and 124 for details.)

$$\ln I(Y) = \ln I(TFP) + \ln I(TFI) \quad (15)$$

The dynamic intensity parameter is then given by the relation

$$i = \frac{\ln I(TFP)}{|\ln I(TFP)| + |\ln I(TFI)|} \quad (16)$$

And the dynamic extensity parameter is given by the following relation

$$e = \frac{\ln I(TFI)}{|\ln I(TFP)| + |\ln I(TFI)|} \quad (17)$$

Absolute values in both denominators guarantee that the share of intensity and extensity development can be measured for all possible development of the share of extensive and intensive factors (Mihola 2007, p. 125):

- Change in the extensive factors only, without any change in the intensive factors;
- Change in the intensive factors only, without any change in the extensive factors;
- Simultaneous growth of both extensive and intensive factors;
- Simultaneous decline of both extensive and intensive factors;
- Compensation of extensive factors for intensive factors;
- Compensation of intensive factors for extensive factors;
- Stagnation of both extensive and intensive factors.

Using analogy to the expression (16) and (17), we can also define formulas for the dynamic parameter the share of the development of labor L and capital K on the TIF development. The share of the labor development on the TIF development can be expressed as

$$l = \frac{\alpha * \ln I(L)}{\alpha * \ln I(L) + (1 - \alpha) * \ln I(K)} \quad (18)$$

The share of the capital development on the TIF development can be expressed as

$$k = \frac{(1 - \alpha) * \ln I(L)}{\alpha * \ln I(L) + (1 - \alpha) * \ln I(K)} \quad (19)$$

### Comparative analysis of the intensive and extensive development of selective EU countries for the period 1990-2010

The methodology derived in the previous section will be used for the purpose of comparing the quality of development dynamics for Poland, Slovakia, Slovenia, Czech Republic, Estonia, Hungary, Romania, Bulgaria, Lithuania, and Latvia for the period of the past twenty years (1990 – 2010). The data for the EU-15 will also be shown for the sake of comparison<sup>20</sup>. The following comparative analysis also assigns the corresponding values for the 4 dynamic parameters under review – *i*; *e*; *l* and *k* – to the average annual development G(GDP) in stable prices of year 2000 for each analyzed country.

The data were taken from the Statistical Annex of European Economy<sup>21</sup>, included in the EU prognoses, as well as research studies and articles in scientific journals. To ensure credibility of the generated data, we have confronted their development with the evaluation of the respective stages by various authors and organizations. Moreover, year-to-year weights  $\alpha$  were identified for each country using standard method. Furthermore, the time series of the growth rates G(GDP), G(L), and G(K) for the period of 1990 through 2010 were also used as input data for the analysis. Using statement (9) for the given alpha, a growth rate of the

<sup>20</sup> EU-15 consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, the Netherlands, Portugal, Spain, Sweden, and United Kingdom.

<sup>21</sup> There is currently no uniform source of such data, whereas it is also necessary to respect revisions that correct the data *post facto*, in time intervals of various duration.

summary input factor  $G(TIF)$  was calculated. Statement (14) was used to calculate the growth rate of the summary productivity of factors. The growth rates determined in the aforementioned manner enable the calculation of all four dynamic parameters under review -  $i$ ;  $e$ ;  $l$  and  $k$  – by means of statements (16) through (19). The algorithm was applied to average indexes<sup>22</sup> of the initial annual data for the examined period of 1990 – 2010 as a whole.

Since the twenty-year time series of several input indicators form an extensive set, Table no. 1 only show average year-to-year indicators  $G(GDP)$ ;  $G(TIF)$ ,  $G(TFP)$ ,  $G(L)$ , and  $G(K)$  – supplemented with dynamic parameters. The countries are sorted based on the recorded average year-to-year GDP growth rate, in a descending order. The last column shows data for the EU-15.

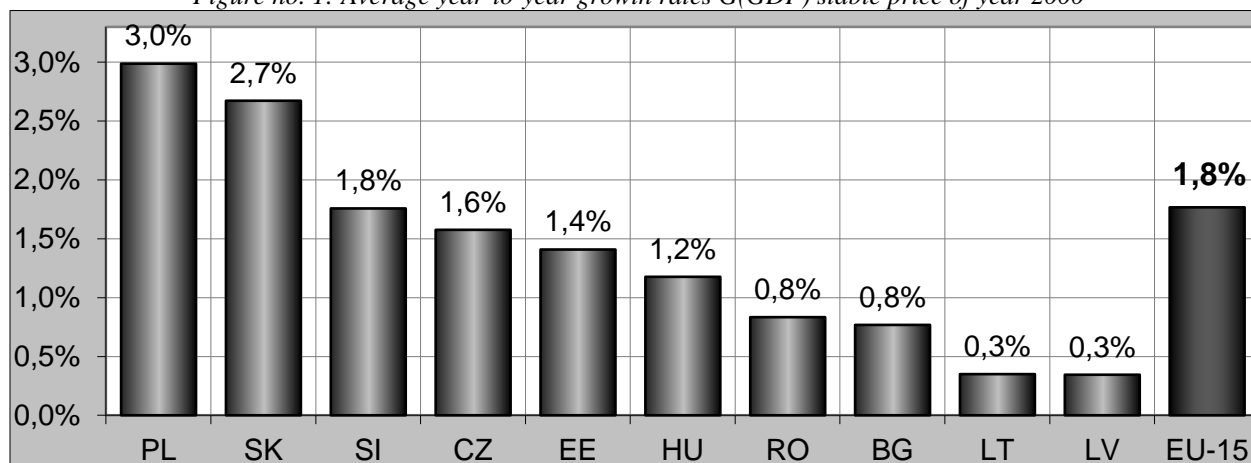
Table no. 1: Average year-to-year dynamic characteristics (all indicators are expressed in %)

	PL	SK	SI	CZ	EE	HU	RO	BG	LT	LV	EU-15
<b>G(GDP)</b>	3.0	2.7	1.8	1.6	1.4	1.2	0.8	0.8	0.3	0.3	1.8
<b>G(TIF)</b>	0.2	1.5	0.0	0.6	0.2	-0.1	-0.9	-0.1	0.2	-0.2	0.7
<b>G(TFP)</b>	2.8	1.1	1.8	0.9	1.2	1.3	1.8	0.9	0.2	0.6	1.1
<b>G(L)</b>	-1.3	-0.4	-0.5	-0.9	-1.9	-1.1	-2.1	-0.9	-2.1	-0.4	0.7
<b>G(K)</b>	2.0	1.4	3.4	3.0	3.3	1.7	2.3	1.0	2.0	1.9	2.1
<b>i</b>	94	42	100	60	87	90	65	87	47	71	61
<b>e</b>	6	58	0	40	13	-10	-35	-13	53	-29	39
<b>l</b>	-35	-12	-48	-21	-46	-53	-74	-55	-42	-53	39
<b>k</b>	65	88	52	79	54	47	26	45	58	47	61

Source: Own calculations

The growth rates for individual countries are shown in Figure no. 1. Only Poland and the Slovak Republic recorded higher average growth rate than the EU-15. Slovenia shows the same growth rate as the EU-15. The mentioned countries are followed by the Czech Republic and other countries under review.

Figure no. 1: Average year-to-year growth rates  $G(GDP)$  stable price of year 2000



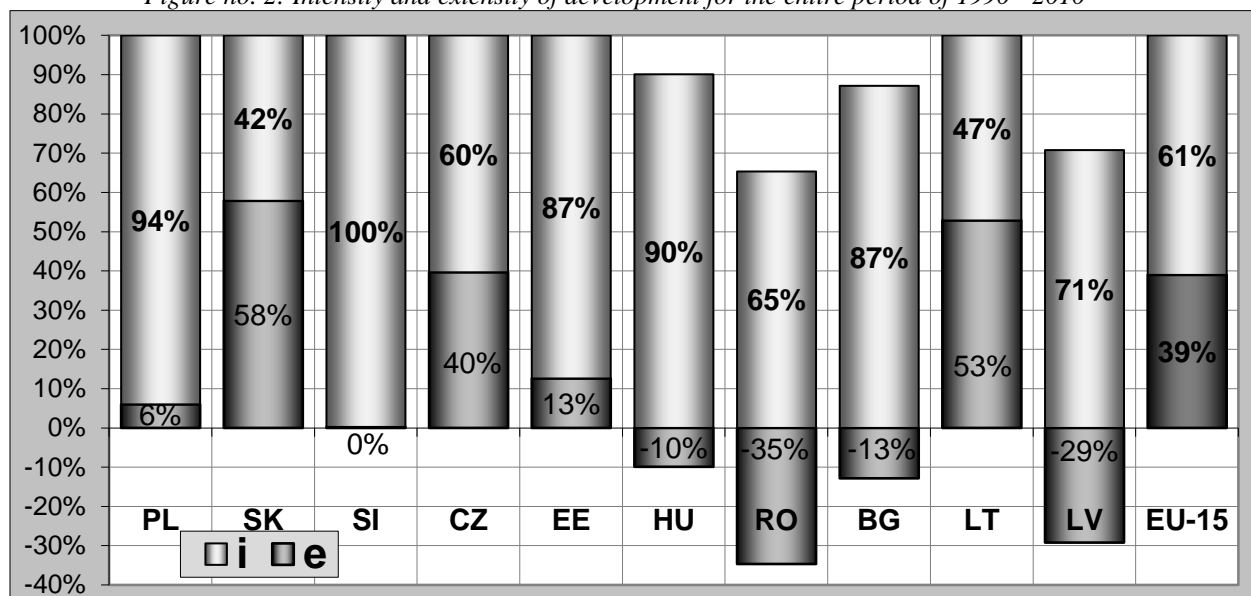
Source: Table no. 1; own calculations

The degree of intensity or extensity, as appropriate, of such development is shown in Figure no. 2 that lists the examined countries in the same order as Figure no. 1. Most countries appear to be predominantly intensive in the period under review. The development of Estonia seems to be purely intensive. The development of Slovakia, Lithuania as well as the Czech Republic is extensively-intensive. Four countries with a lower growth rate – i.e. Hungary, Romania, Bulgaria, and Latvia – experience intensive compensation. Slovakia and

<sup>22</sup> Geometric mean of annual indices and the corresponding annual growth rates were used to calculate the average indices. The use of arithmetic mean for the annual growth rates does not lead to correct results.

Lithuania show the least intensive development. Development in the Czech Republic shows very similar parameters to the EU-15.

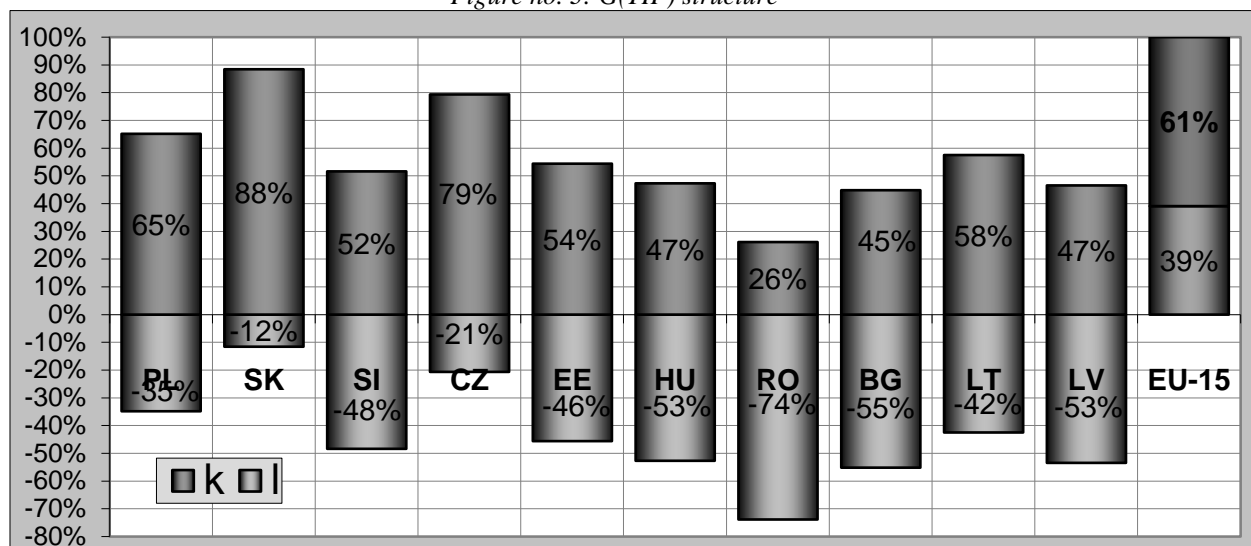
Figure no. 2: Intensity and extensity of development for the entire period of 1990 - 2010



Source: Table no. 1; own calculations

Figure no. 3 gives an overview of the growth rate structure of the summary input factor G(TIF). All the examined countries experienced the decrease of labor during the period under review, which is – in most cases – more than compensated by the increase of capital. In case of Slovenia, the decrease of labor by 48% was directly eliminated by the increase of capital by 52%, which led to stagnating TIF and zero extensity. In case of Romania, Latvia, Bulgaria, and Hungary, the decrease of labor was so significant that the increase of capital could not compensate in full, thereby resulting in the decrease of TIF and negative extensity.

Figure no. 3: G(TIF) structure



Source: Table no. 1, own calculations

**Conclusion:**

The article shows how time series of the basic macroeconomic indicators (GDP, total factor productivity TFP, total factor inputs TIF, value labor and capital) expressed in money terms may be used to analyze, whether the change in such indicators in time is caused by mainly extensive factors, reflecting the change of inputs, or by mainly intensive factors, with

changes in the efficiency indicator. We introduced new method how to measure the share of intensive and extensive factors on the GDP development which is applicable for all possible development and not only for growth of GDP as in the case of equation of grow accounting. So the methodology could be considered as more accurate and exact. Further the article explains how the developments of labor and capital contribute on the development total input factors (TIP).

Our methodology was applied for the investigation of the GDP development of Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania Poland, Romania, Slovenia and Slovakia for the period 1990-2010. The results reveal that most of the countries achieved in the observed period more intensive development than traditional EU countries (EU-15). The only exception were Lithuania and Slovakia where the value of intensity parameters was lower than in the EU-15 and the Czech Republic with same value as EU-15. The intensive development in Rumania and Latvia and partly in Bulgaria and Hungary even eliminated the decline of total input factors. All countries under our review faced the fall of labor force which was, however usually compensated by increasing of capital inputs. Our analysis confirms that the investigated countries with socialist experience before observed period tried to draw level of EU-15 in the observed period. To be able to achieve the concentration of the intensive factors was necessary. Further it was confirmed that all countries suffered from over-employment during socialistic period that resulted in the decline of the share of labor force on the development of TIF after year 1989. The method brings exact result of the development of main macroeconomic indicators connected with GDP and create base for further investigation.

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# THE JUSTIFICATION FOR INFLATION CRITERIA IN V4 COUNTRIES<sup>23</sup>

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## Abstract

The countries aspiring to the membership in the Eurozone must cover the Maastricht convergence criteria, which are divided into fiscal (government deficit, public debt) and monetary (price stability, exchange rate stability, stability of long-term interest rates). The basic requirements for criteria were settled at the time of their formulation in the Protocol to the Treaty of European Union. There was the requirement to ensure a high degree of sustainable economic convergence. Currently, global uncertainty and significant financial fluctuations in the world and off course in Europe, appears to be important question of whether the fulfillment of these nominal criteria is sufficient condition, for the adoption of the common European currency as a guarantee of future success Eurozone membership. The basic objective of the article is through the analysis of monetary convergence criteria - price stability - to assess the merits of sustainability monetary criteria in Visegrad countries (V4) as an informal group of four Central European countries - the Czech Republic, Hungary, Poland and the Slovak Republic. We concluded that it is a certain distortion ability to express reference value determined by developments in the EU member states (and not members of the Eurozone). However, it should ensure price stability as a precondition for the smooth functioning of the euro area, covered by a common monetary policy of the ECB.

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**Keywords:** Maastricht criteria, Inflation, V4 countries, Eurozone

## Introduction

Any country joining into the European Union (EU), at the same time, committed to future membership of the euro area - the adoption of the euro. It happens EMU Member States with a derogation (exception) to adopt the euro, but the time horizon of its entry into the euro area is not directly addressed. For the introduction of the common European currency is required fulfillment Maastricht convergence criteria, which are enshrined in the Protocol to the Treaty of European Union, signed on 7. February 1992 in Maastricht (also referred to as the Maastricht Treaty). These criteria cover the monetary and fiscal criteria and they should also ensure a high degree of sustainable economic convergence. They represent the convergence of the numerical values of inflation and long-term interest rates, acceding countries to the values prevailing in the euro area. It is necessary to stabilize their exchange rates against the euro during the two years Membership in ERM II and respecting fiscal discipline. In the current period, marked by global financial and debt crisis (in the Eurozone) are increasingly emerging views and doubts, whether the fulfillment of the Maastricht criteria of nominal convergence is sufficient condition for adopting the euro and successful membership of the euro area

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countries. The basic objective of the article is through the analysis of monetary convergence criteria - price stability - to assess the merits of sustainability monetary criteria in Visegrad countries (V4) as an informal group of four Central European countries - the Czech Republic, Hungary, Poland and the Slovak Republic.

### **Maastricht criteria – price stability**

<b>Price stability</b>	Sustainable price stability, while the average rate of inflation over the past year, may not exceed by more than 1.5% average inflation rate in the three Member States of Eurozone with the lowest inflation.
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Source: *The Treaty of European Union (1991)*.

Reducing the rate of inflation in countries with high inflation is not generally a necessary condition of forming the Monetary Union, but this is a condition for forming a Monetary Union with a low inflation rate. According to the Treaty of EU, the rate of inflation should not exceed the average rate of inflation in the three EU countries with the lowest price increase by more than 1.5 %. The level of price stability must be sustainable. It is measured by the Consumer Price Index (Consumer Price Index - CPI), but on a comparable basis, taking into account differences in national definitions of inflation. In the EU has been compiled and adopted Harmonized index of consumer prices (Harmonized Index of Consumer Prices - HICP) in 23th of October 1995).<sup>24</sup> According to D. Gros, (Gros, 2004) existence of a convergence criteria on price stability, as we know it today, appeared to be justified as being necessary in order to minimize the risk of project failure to involve the European single currency group of countries, with the lowest inflation rate. Many economists (Gros, 2004, Buiter, 2004, Kowalski, 2003) criticized precisely the fact, that when assessing price stability criteria based on the inflation rates of all EU countries instead of examining inflation rates in the euro area. While taking into account, the inflation rates of the countries, which are not full members of the Eurozone, and therefore they are not justified common monetary policy of the ECB. With the current number of 28 members of the EU are more likely to just those three countries, whose average inflation rates will form an evaluation of price stability limit (as defined in the Protocol of the Maastricht Treaty) and basically those countries will not be directly involved to the common monetary policy.<sup>25</sup> O. Dedek, (Dedek, 2008) find out, that despite the relatively clear definition of the inflation criteria, they were seen as essential to any subsequent interpretation. "Preferably to be the best in inflation, it was confirmed to have the lowest inflation. At that time no one bother possibility, that the baseline value of inflation rate, can be against common sense, could deflect inflation downward, if one of the Eurozone member will has deflation. Later, when did this anomaly occurred, it was treated by pointing out, that the inflation criteria says, thus the price increase, while deflation is a decrease price level. Thus, the exclusion of inflation with a negative sign was something that could be useful in formal criteria."

### **The justification for inflation criteria and the reference value**

The literature presents the view, that countries wishing to establish a Monetary Union, must take certain steps leading to the convergence of the inflation. The basic purpose of price

<sup>24</sup> HICP was based on a comparable basis, taking into account differences in national definitions (range of goods and services, consumer population, geographic coverage, rates, scales used). It is calculated as a weighted average of the indexes of the Member States. Country weights depend on the percentage of the final monetary consumption expenditure of households in total expenditure in the euro area (the highest weight to Germany, France and Italy) and it is allowed to change the weight each year. HICP is constantly reviewed and improved.

<sup>25</sup> MUCHOVÁ, E. 2009. Nominal and real convergence in the context of EMU. In: Macroeconomic convergence of the Slovak economy of the euro area: *electronic book of article International Scientific Conference* [CD-ROM]. Bratislava : Katedra ekonomickej teórie NHF EU, 2009, s. 1-9. ISBN 978-80-225-2822-1.

stability in the Maastricht criteria is to align preferences about the inflation rate in the Eurozone, which is actually the willingness of developing countries to adapt their own inflation rates with respect of the primary objective of monetary policy ECB - price stability.

The design of the Maastricht criteria in price stability is subject to criticism on two grounds. The first, it is the way in which they calculated benchmark to assess the performance of the inflation criteria. The second, it is the adequacy or inadequacy of the inflation criteria, its original form in 1991 called for “catching-up” countries. The low flexibility in the interpretation of this criteria makes difficulty for the countries of Central and Eastern Europe fulfilment in nominal performance criteria.<sup>26</sup> Maastricht criteria on price stability does not determine specific value for the assessment of compliance with this criteria. In order to calculate the reference value, is measurement of inflation, based on the average rate of HICP of the three EU countries with the best performance in terms of inflation. Definition of the criteria on price stability and interest rate convergence criteria includes matching three EU Member States, which in terms of price stability have best results. According to the results of these three states is determine the reference value of the two criteria, for the definition of the individual criteria. The European Commission in assessing the stability criteria is based on the inflation rates of all EU Member States instead of examining inflation rates of the euro area.

Even in EMI Convergence Report (1998) introduced the concept of “extraordinary value” in inflation towards negative value.<sup>27</sup> This exceptional value could be excluded when calculating the reference value, as it could lead to reduce its explanatory power in the EU. We concluded that it is a certain distortion ability to express reference value determined by developments in the EU member states (and not members of the Eurozone). However, it should ensure price stability as a precondition for the smooth functioning of the euro area, covered by a common monetary policy of the ECB.

The following table 1, shows a comparison of benchmarks for the Maastricht inflation criteria laid down by the Protocol of the Maastricht Treaty, with average annual HICP inflation for the EU and the euro area countries, as well as their values after adding 1.5 percentage points.

Table 1.: The reference value and average value for inflation criteria (%) in 1998 – 2012

Year	1998	2000	2002	2004	2006	2007	2008	2010	2012
Reference value <sup>1</sup>	2,7	2,4	3,3	2,4	2,8	3,0	3,2	1,0	3,1
Average of EU <sup>2</sup>	1,7	1,4	2,3	1,9	2,2	2,2	2,7	1,0	3,1
Average of Eurozone <sup>2</sup>	1,5	1,4	2,5	2,1	2,2	2,1	2,5	0,3	2,8
Average of EU + 1,5 %	3,2	2,9	3,8	3,4	3,7	3,7	4,2	2,5	4,6
Average of Eurozone + 1,5%	3,0	2,9	4,0	3,6	3,7	3,6	4,0	1,8	4,3

Source: Convergence reports of ECB 1998 - 2012, Eurostat, authors calculations.

<sup>1</sup>Specification for 1998 refer to the period from February 1997 to January 1998. For the year 2004 covering the period September 2003 to August 2004. For the 2006 period from November 2005 to October 2006.

Data for other years are from April last year to March of the present year.

<sup>2</sup>The average annual inflation rate in the EU and the euro area are based on data for the same period as the reference value.

As we can be seen from Table 1, the reference value of 2010 for the inflation criteria expressed using the non-weighted arithmetic average rate of inflation of the three EU countries with the lowest inflation rate, compared to the other years is very low. It is caused

<sup>26</sup> MUCHOVÁ, E. - CHRENKOVÁ, J. 2009. Inflation and price stability in terms of global trends. In: Economic viewpoints.[online]. 2009, roč. 38, č. 4. s. 467-480. [cit. 2013-02-10]. Dostupné na internete:<[http://www.euba.sk/departament-for-research-and-doctoral-studies/economic-review/preview-file/er4\\_2009\\_muchova\\_chrenkova-10313.pdf](http://www.euba.sk/departament-for-research-and-doctoral-studies/economic-review/preview-file/er4_2009_muchova_chrenkova-10313.pdf)>. ISSN 0323-262X.

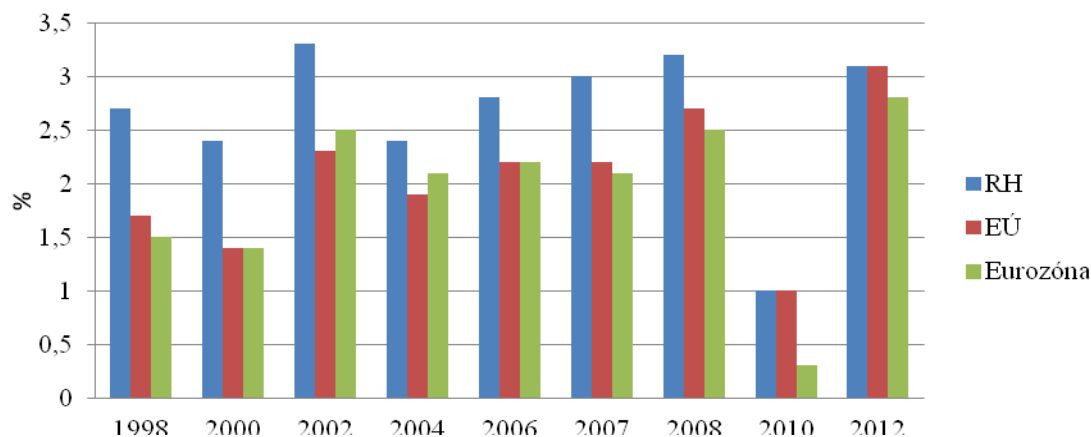
<sup>27</sup> The exclusion of this value depends on the decisions of the ECB. The same applies to the interest rate convergence criteria, in which the reference value is determined on the basis of the level of interest rates in the same three states.

by negative values of countries entering the calculation of this criteria - Portugal (-0.8%), Estonia (-0.7%) and Belgium (-0.1%).<sup>28</sup> The average inflation rate was therefore 0.5% and the benchmark, after adding 1.5 percentage points, was 1.0%. The price developments during the reference period in Ireland, resulting in the 12-month average inflation rate of -2.3% in March 2010. It was considered an "extraordinary" value. It was given, that inflation is due to several factors specific to Ireland (exceptionally sharp decline in economic activity and the associated decline in wages) is considerably lower than in other Member States. Ireland's inflation rate was excluded for the calculation of the reference value, because its inclusion would cause a distortion of the reference value. As it is stated in the 2010 Convergence report - development of a Member State deems "exceptional" when two conditions are satisfied:

- If the 12-month average inflation rate is substantially lower than comparable rates in other Member States;
- If the price development in the country has been greatly influenced by exceptional factors.<sup>29</sup>

ECB Convergence Report of 2010: "the principle of an extraordinary, not mean mechanical process of elimination of certain inflation rates, but it was introduced to deal with potential significant deviations of inflation in the country."

Figure 1.: The comparison of average annual inflation rate in the EU, the Eurozone and the reference values for the inflation criteria in selected years



Source: Authors processing by Eurostat and ECB Convergence Reports.

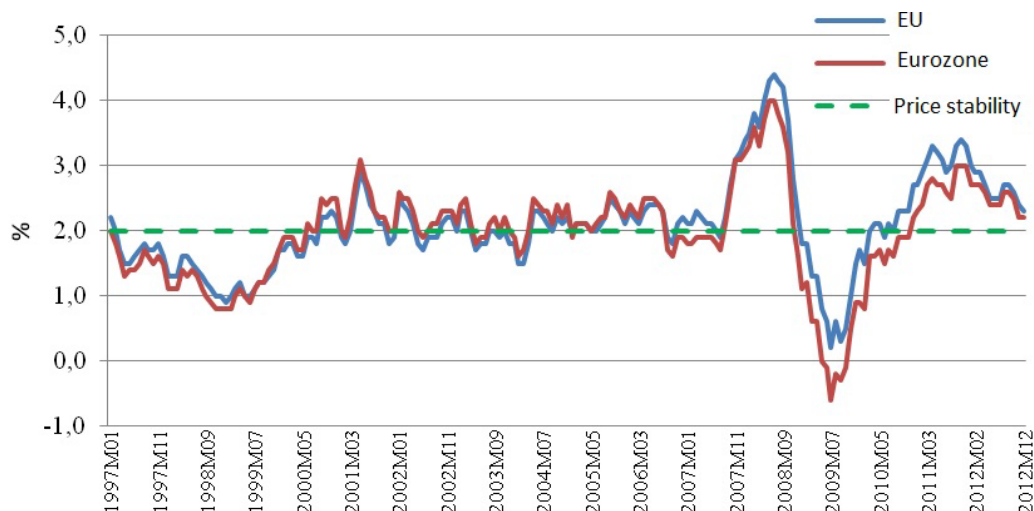
Based on Figure 1, we compare the benchmark inflation criteria published by the European Central Bank in its Convergence reports for the years and the average annual inflation rate for the euro area and the EU in the respective reference periods. Reference values exceeded the annual average inflation rate in the EU and the euro area in the period 1998 - 2008. From the Figure 1 we can see, that in the years 2010 and 2012, the inflation criteria corresponds to an average annual inflation rate in the EU (for the period from April of the previous year to March of that year), while the average inflation rate for the reporting period fell down in 2010 (April 2009 to March 2010). The differences can be explained by the instability of the price level in European countries in the second half of 2008 and especially in 2009, which were mainly related to the sharp decline in commodity prices (especially oil prices, metals and agricultural commodities) reflecting to the decline in global demand as a result of the global financial crisis. This declines led to the development of prices in the EU, more pronounced in the euro area in 2009, the overall average HICP inflation stood at 0.3 %. Compared with the previous year and dynamics of the Harmonized index of consumer prices

<sup>28</sup> Convergence Report 2010. The calculation includes data from April 2009 to March 2010.

<sup>29</sup> ECB. 2010. Convergence Report May 2010. [online]. Frankfurt nad Mohanom : ECB, 2010. s. 7 [cit. 2013-02-10]. Dostupné na internete: < <http://www.ecb.int/pub/pdf/conrep/cr201005sk.pdf>>. ISSN 1725-9665.

slowed down significantly (3.3% in 2008) and in the months from June to October 2009 inflation had negative values in the Monetary Union. In the Annual Report of the NBS in 2009 states, that "a dampening effect of commodity prices, largely in energy prices and partly foods, were the main reason for the significant reduction in inflation in 2009 in the euro area."<sup>30</sup> Price developments in the euro area was also dampened by a slowdown in economic activity during 2009, which was also reflected in the monetary policy of the ECB. It reached to the unconventional monetary measures with efforts to provide the necessary liquidity to euro area banks. The Figure 1 showed, that the most significant difference in the average annual inflation rate observed in the period (latest evaluation of the ECB or the Commission). Price developments in the EU and the euro area increased in the average growth, which was mainly related to recovery in economic activity in all countries in 2011. In 1998, the Governing Council established a quantitative definition of price stability as the annual growth of the Harmonized index of consumer prices (HICP) area less than 2 %. Price stability is maintained over the medium term. In 2003, this led to clarify the definition, according to the aim, is to keep inflation in the medium term, below or close to 2 % (to prevent deflation). If we have a look of the inflation criteria in terms of the basic objective of the single monetary policy of the ECB - the criteria on price stability - we find, that between 2000 and 2007 (Figure 2) year changes of HICP in the EU and euro area are slightly fluctuated at around 2 %, while in July 2008, this occurred the most significant shift on year changes upwards from the desired price target of ECB. As we mentioned above, the financial crisis has signed the lowest annual rate of HICP in the EU (0.2 %), or even negative in the euro area (-0.6 %) in July 2009.

Figure 2.: The year change of HICP in EU and Eurozone. Inflation target of ECB in years 1997 - 2012



Source: Authors processing by Eurostat and ECB Convergence Reports.

On Figure 2 we can see that the annual variation in inflation in the euro area was up to August 2006, slightly higher, eventually the same as the average in all EU countries. From this period the annual changes of rising inflation in the euro area significantly lower than in the EU.

<sup>30</sup> NBS. 2010. The Annual Report 2009. [online]. Bratislava : NBS, 2010. s. 15 [cit. 2013-02-10]. Dostupné na internete: < [http://www.nbs.sk/\\_img/Documents/\\_Publikacie/Vyrocnasprava/VSNBS09.pdf](http://www.nbs.sk/_img/Documents/_Publikacie/Vyrocnasprava/VSNBS09.pdf)>. ISBN 978-80-8043-154-9.

## The justification for inflation criteria in V4 countries

Comparison of the values for inflation criteria in the evaluation of the review period, the ECB and the European Commission are in the following Table 2.

Table 2.: The Maastricht inflation criteria (%) and reference value in 1998 – 2012

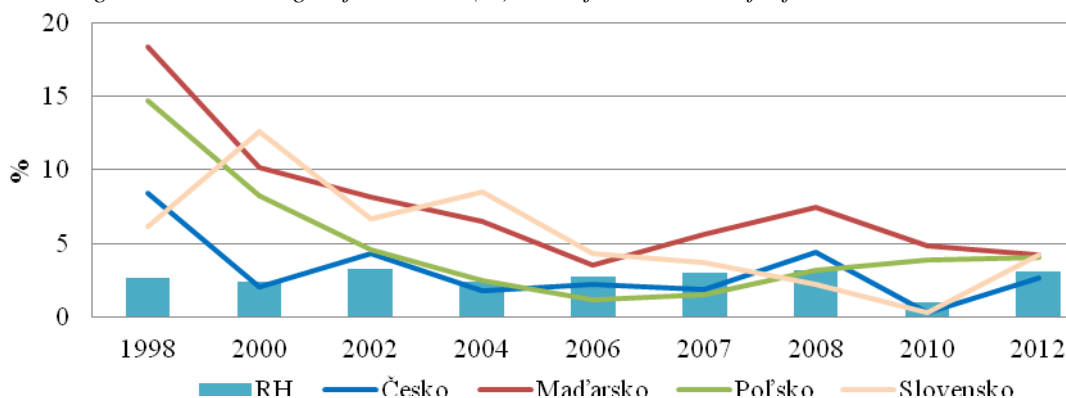
Country/year	1998	2000	2002	2004	2006	2007	2008	2010	2012
EU	1,7	1,4	2,3	1,9	2,2	2,2	2,7	1,0	3,1
Eurozone	1,5	1,4	2,5	2,1	2,2	2,1	2,5	0,3	2,8
Czech rep.	8,4	2,1	4,4	1,8	2,2	1,9	4,4	0,3	2,7
Hungary	18,4	10,1	8,1	6,5	3,5	5,6	7,5	4,8	4,3
Poland	14,7	8,2	4,6	2,5	1,2	1,5	3,2	3,9	4,0
Slovakia	6,1	12,6	6,7	8,5	4,3	3,8	2,2	0,3	4,2
Reference value	2,7 <sup>1</sup>	2,4	3,3	2,4	2,8	3	3,2	1	3,1

Source: Author processing by Eurostat and Convergence reports of ECB 1998 - 2012,

<sup>1</sup>Convergence Report 1998, EMI (predecessor ECB)

Based on Figure 3, we see, that in the period up to 2004 (1 May 2004 entrance into EU) the price level measured by the HICP in the V4 countries increased faster than the developed benchmark for inflation criteria in this period. The lowest inflation rate of post-communist transition (V4 countries) during this period comparable to the EU average and the euro area showed only the Czech Republic (CR). Czech Republic examined the evaluation period for the years 1998 and 2003 is declining, although not continuous trend, which could reduce the average rate of measured HICP inflation of 8.4% in 1998 to 1.8% in 2004 (September 2003 - August 2004). It is representing a decrease of up to 6.6 p. b. Its value for the reference period considered in 2004 was lower, than the average for the EU and the euro area and even by 0.6 p. b. lower than the reference value for inflation criteria in a given period.

Figure 3.: The average inflation rate (%) and reference value of inflation criteria in selected years



Source: Authors processing by Eurostat and ECB Convergence Reports.

The process of reducing inflation in 2003 was also affected by the orientation of monetary policy to achieve and maintain price stability in the medium term. In the next period (after the Czech Republic joined the EU in May 2004), the inflation rate was relatively volatile, mainly due to rising food and oil prices and changes in indirect taxes and administered prices.<sup>31</sup> In the next period inflation was mostly between 1.6% and 3% until the end of 2007, when began to rise again (Figure 2). Negative consequences of price developments in the Czech Republic in this period was the average inflation rate, which have been 1.2% above the reference value of 3.2% published by ECB and the European Commission in May 2008. Inflation in 2008

<sup>31</sup> ECB. 2008. Convergence Report 2008. [online]. Frankfurt nad Mohanom : ECB, 2008. s. 37 [cit. 2013-02-11]. Dostupné na internete: < <http://www.ecb.int/pub/pdf/conrep/cr200805sk.pdf> >. ISSN 1725-9665.

reached a peak and in 2009 inflation decreased significantly (min. - 0.6 % in October 2009).

This year, the Czech economy due to the global financial and economic crisis plunged into recession. Since this period, Czech economy records rather lackluster recovery mainly due to exports, as its reflected in the gradual increase in inflation to March 2012 (4.2%), but not exceeding 12 observed average values of the reference period in 2010 (0.7 % below the reference value) and 2012 (0.4 % below the reference value). Price increase was due to developments in food, fuel and energy, but also relatively strong growth in regulated prices.<sup>32</sup>

Since April 2012, the inflation with minor fluctuations again slightly decreases. Next country in terms of price stability over the period showed, the second best result is Poland.

However, Poland has begun to fulfill the inflation criteria after its entrance into the EU, with the exception of last reference period in 2010 and 2012. Compared with the Czech Republic, 12 month average HICP entered into the calculation of the reference value, in December 2006 and in May 2007. It means, that in this period, the inflation rate in Poland was one of the three lowest rates in the EU. Since the end of the 90<sup>th</sup> years of the 20 century has seen annual HICP inflation in Poland decline in double digits (17.9 % in January 1997) to very low levels in 2003 (min. 0.3 % in April 2003). In 2004, inflation was temporarily increased due to the increase in administered prices and indirect taxes and higher food prices after Poland's accession to the EU (up 4.8% in August 2004). After a period with low inflation in 2005 and 2006, price developments was turn over in 2008 and 2009, inflation exceeded 4.0% since the beginning of 2010 began to decline. The extreme increase of the commodity prices in global markets, depreciation of the nominal exchange rate and the increase in VAT in an environment of domestic demand in 2011, caused increase of inflation. Until mid-2012, inflation was slightly fluctuated at around 4.0 % since gradually decreases. The development of inflation in Poland is based on a background of relatively steady growth in economic activity in mid-2008, which was only partially interrupted in the first half of 2005. Between 2007 and 2008, began to show capacity pressures in the form of visible growth in unit labor costs, deepening current account deficit and historically low unemployment rates. The onset of the global economic and financial crisis was caused sudden weakening of the capacity constraints. Relatively short economic downturn and lower global commodity prices led to a decline in the summer of 2010, annual HICP inflation to 1.9 % (July, August 2010).<sup>33</sup> Slovak Republic, although it is the only country among the V4 countries, which begun a member of EMU from 1 January 2009, filled benchmark inflation convergence criteria in the evaluation of the only times in 2008 and 2010. In the longer term, inflation in consumer prices in Slovakia volatile with the highest double-digit levels in the first half of 2000 (up 16.8 % in March 2000). The development was affected by significant inflation and accelerating growth in real GDP in 2005 - 2007. In 2007, there was a significant reduction in inflation, which was signed under particular appreciation of the Slovak currency. In the summer of 2007, the inflation rate has very low values (decreased mainly due to the slight development of domestic energy prices). Later, annual HICP inflation was started as a result of higher prices of food, energy and services in conjunction with global and domestic inflationary pressures.

This trend continued until the end of 2008. The global financial crisis in Slovak economy signed the profound decline in inflation in late 2009. At the beginning of 2010 inflation has seen even negative (-0.2 % in January and February 2010). "The decline in regulated energy prices in January 2010, slowdown in services prices and slightly lower growth in industrial goods excluding energy, have meant that, despite of the substantial

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<sup>32</sup> From January 2012 are settled the increased rate of VAT, which are subscribed to rising of food prices and regulated prices.

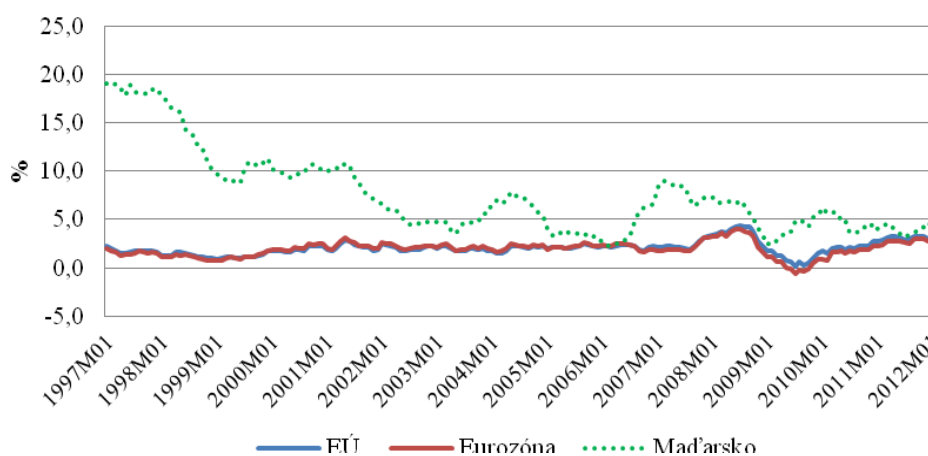
<sup>33</sup> ECB. 2012. Convergence Report, May 2012. [online]. Frankfurt nad Mohanom : ECB, 2010. s. 59 [2013-03-5]. Dostupné na internete: <<http://www.ecb.int/pub/pdf/conrep/cr201205sk.pdf>> . ISSN 1725-9665. 65 s.

increase in food prices, the average inflation fell down."<sup>34</sup> Rising inflation in the next period, was the result of a combination of external and domestic factors (increase in administered prices and government consolidation measures), when domestic price level was affected on the one hand, rising global oil prices and agricultural commodities, stagnant domestic demand on the other hand. This negative trend in the price level caused by the fact, that in May 2012 Slovakia did not cover the inflation criteria with difference 1.1 % above the reference value.

From December 2011 (4.6%) the inflation rate gradually decreases and its dynamics compared to the same period in 2012 decreased by 1.2 %. Hungary is the only country among the V4 countries, which for the reporting period did not meet even once convergence criterion for price stability. It showed the highest differences in average twelve-month inflation rate from average values measured in the EU and the euro area in the same reference period.

Development in the yearly changes in HICP inflation rate, compared with the same period in the EU and the euro area from 1997 captures the following graph.

Figure 4.: The year change in HICP (%), 1997 – 2012 (Hungary, EU, Eurozone)



Source: Authors processing by Eurostat and ECB Convergence Reports.

The ECB Convergence Report 2012, showed, that long-term volatility in inflation rates during this period is largely caused by frequent changes in indirect taxes and administered prices. In the first decade of this century, there was typical for Hungary significant growth in unit labor costs caused by the rapid growth of compensation per employee. In the next period, the changes in the labor market led to a significant slowdown in overall growth in unit labor costs. In 2011, increase in compensation per employee again outpaced labor productivity, which caused into increase in unit labor costs. Inflationary pressures, despite the very low demand in 2011 were caused by rise in commodity prices, exchange rate depreciation in the second half of 2011. The impact of the introduction of specific taxes in certain sectors in 2010 (energy and telecommunications sectors, retailers etc.) led to increase in indirect taxes in early 2012. In the current period, the inflation rate in Hungary is the highest in the all countries of European Union.<sup>35</sup>

## Conclusion

Countries aspiring to membership in the Eurozone must meet the Maastricht convergence criteria, which are divided into fiscal (government deficit, public debt) and monetary (price stability, exchange rate stability, stability of long-term interest rates). The basic requirements

<sup>34</sup> NBS. 2011. Convergence Report 2010. [online]. Bratislava : NBS, 2011. s. 13 [2013-03-5]. Dostupné na internete: <[http://www.nbs.sk/\\_img/Documents/\\_Publikacie/VyrocnaSprava/VSNBS10.PDF](http://www.nbs.sk/_img/Documents/_Publikacie/VyrocnaSprava/VSNBS10.PDF)>. ISBN 978-80-8043-166-2.

<sup>35</sup> ECB. 2012. Convergence Report, May 2012. [online]. Frankfurt nad Mohanom : ECB, 2012. s. 57 [cit. 2013-02-11]. Dostupné na internete: <<http://www.ecb.int/pub/pdf/conrep/cr201205sk.pdf>>. ISSN 1725-9665.

for criteria were settled at the time of their formulation in the Protocol to the Treaty of European Union. There was the requirement to ensure a high degree of sustainable economic convergence. Currently, global uncertainty and significant financial fluctuations in the world and off course in Europe, appears to be important question of whether the fulfillment of these nominal criteria is sufficient condition, for the adoption of the common European currency as a guarantee of future success Eurozone membership. The basic objective of the article is through the analysis of monetary convergence criteria - price stability - to assess the merits of sustainability monetary criteria in Visegrad countries (V4) as an informal group of four

Central European countries - the Czech Republic, Hungary, Poland and the Slovak Republic. When defining the criteria on price stability and the convergence criteria of long-term interest rates, there is introduced the concept of three EU Member States, which in terms of price stability have the best results. This is related to the problem of determining the reference value in assessing both criteria, whereas the EC is based on the inflation rates of all EU Member States instead of examining inflation rates of the euro area. Problematic also appears to be the introduction "exceptional value" of inflation rate, which may be the benchmark excluded from the calculations (case of Ireland in 2010). This fact may cause to some distortion, which have a direct impact on the assessment of compliance with the criteria in a specific country. Reference values for the inflation criteria exceeded the annual average inflation rate in the EU and the euro area in the period 1998 - 2008, while the reference period 2010 to 2012, the inflation criteria coincided with an annual average inflation rate in the EU (for the period from April of the previous year to March of the year), in 2010 the average inflation rate fell sharply. The differences can be explained by the instability of the price level in European countries in the second half of 2008 and especially in 2009. There were mainly related to the sharp decline in commodity prices (especially oil prices, metals and agricultural commodities) reflecting the decline in global demand as a result of the global financial crisis.

Dynamics of HICP slowed down significantly especially in the Eurozone in the months from June to October 2009. The temporary negative values has to be seen threat of deflation in the Monetary Union. The V4 countries in the period 1998-2004 (1 May 2004 entrance in the EU) the price level, measured by the HICP, significantly was faster than the developed benchmark for inflation criteria in this period. The lowest inflation rate of post-communist transition V4 during this period comparable to the EU average and the euro area showed only the Czech Republic. Downward trend in inflation and subsequent maintenance of inflation, was also influenced by the orientation of monetary policy to achieve and maintain price stability in the medium term. The only country among the V4 countries, which for the reporting period did not meet even once convergence criteria in price stability was Hungary. It showing the highest differences in average 12 -month inflation rate from average values measured in the EU and the euro area. When assessing the sustainability criteria can be pointed precisely to Slovakia. Slovakia is the only member of the Eurozone which fulfill the inflation criteria in the reference period of 2008, before joining the euro area on 1. 1. 2009. In the reference period of 2012, the inflation rate was the second highest in V4 countries, after Hungary significantly over average of the euro area and the EU. As shown, any adverse developments in recent years, to achieve the smooth functioning of the monetary union is important to achieve a certain degree of real convergence. This is generally expressed in particular by GDP per capita in purchasing power, productivity and comparative price levels.

In this respect, we can say, that the nominal convergence criteria have uncovered another problem - the extent to could the behavior of the countries after their adoption into the monetary union. The Maastricht criteria for joining the euro area were originally defined for countries with a similar level of economic development. This fact is confirmed by the direct continuation on the Treaty of EU – The Stability and Growth Pact (1997) and its subsequent reforms in 2005 and 2011 (the six pack). This documents primarily undertake the Member of



Eurozone to comply fiscal convergence criteria for a stricter regime and for imposing sanctions law Eurozone countries violating budgetary discipline.

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# PRACTICAL APPLICATION OF ENTERPRISE ARCHITECTURE, STUDY CASE OF SME METALMECHANIC IN MEXICO

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## Abstract

Small and Medium Enterprises are important in the world economy, according to statistics have a low level of survival and are facing serious problems like access to financing, weak management capacity, poor information about market opportunities, new technologies and methods of work organization and limited information about access to innovation and research funds. These firms have opportunity areas in the integration of its key processes into information and communication technologies; the methodology of Enterprise Architecture can provide them a model of integration supported with strategic planning.

Integrated by partial architectures like business, applications and technology; each partial architecture has components that differ from each other. The architecture has been designed with the data of the firm of the study case resulting in the identification of strategic changes supported by the methodology, assessment of option for change and a change plan for the adoption of the methodology in their processes.

This paper is the practical application of the architecture, result of two year of research in mediums enterprises ending with the designing and implementing in the study case.

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**Keywords:** Enterprise Architecture, SME, Metal mechanic Industry

## Introduction:

The manufacturing industry in Mexico has a great potential of growth, especially in the northern area, where the automotive cluster is located with important firms like General Motors and Chrysler. Small and Medium Enterprises (SME's) are strategic link in the supply chain that provide products and services to large enterprises.

In the adoption of new methods for organization of work has been placed the Enterprise Architecture methodology. Enterprise Architecture (EA) is a methodology that aims to provide companies with a framework for the use of the information in business processes in ways that support the business strategy, provide the strategic alignment between the business strategy and information and communication technologies (ICT).

Some frameworks have been created for providing a guide or method for the establishing of the EA, these are:

- The Zachman Framework.
- The Department of Defense Architecture Framework (DoDAF).

- The Open Group Architecture Framework (TOGAF).

The Zachman Framework was created by Jhon Zachman in the early 60's at International Business Machines (IBM) Corporation, who developed a framework for to define the information systems. Combining rows and columns that representing perspectives or views and descriptions types; the perspectives are: scope, business model, systems model, technology model, detailed representations and company performance. The description's types are: data, function, network, people, time and motivation the Figure 1 shows the Zachman Framework with its elements. Each celd contains a set of elements that represent diagrams or documents on the specific architecture and level of detail, for example in the column of the functions or processes with line of objectives and scope, the cell has a list of processes that run the business, Ylimaki and Halttunen says that all the columns and rows are important because are abstractions of the company and each celd must include a primitive graphical model that describe the company from the viewpoint of the perspective that is analizaing.

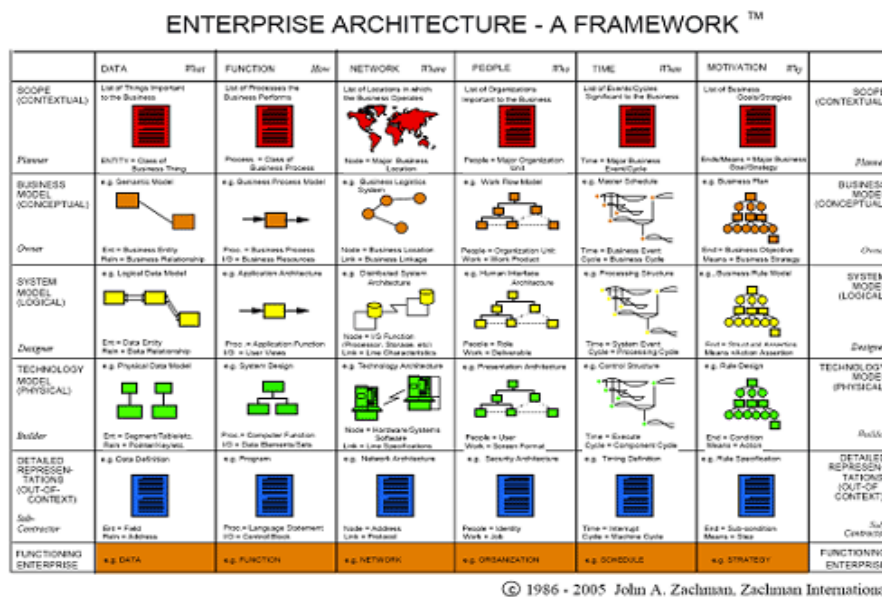


Figure 1 The Zachman Framework extended, source:

The Zachman Framework established the basis for the next generations of frameworks.

The Department of Defense of the United States Of America created in 1994 its own framework the Technical Architectural Framework for Information Management (TAFIM), which was withdrawn and donated to the association The Open Group, who subsequently developed the standard TOGAF.

TOGAF is based in the Architectural Development Method (ADM), whit 9 phases represented in Figure 2, where these phases are: Preliminary analysis, architecture vision, business architecture, information systems architectures, technology architecture, opportunities and solutions, migration plan, implementation of governance and architecture change management. All these components of TOGAF generate deliverables in form of diagrams, flowcharts, structures, definitions and other artifacts.

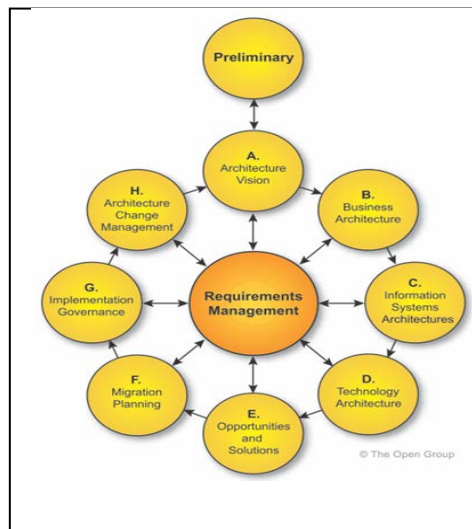


Figure 2 Phases of TOGAF, source

Every framework has a common factor, the empowerment of the company through the ICT, searching increases the productivity and the competitiveness. With the increment of complexity in the companies the needs of data processing are increasingly. In this case has been taken references about TOGAF and Zachman Framework for construct the design proposal of the architecture, software designing tools like Enterprise Architect<sup>36</sup> and the editor Protégé Ontology Editor version 3.4<sup>37</sup>, have been used for the management of the data in the architecture design.

## I.

Research and studies in Europe indicate that the EA is a driver for transformations in companies, Orantes, Gutierrez and Lopez mentioned that the company should be constantly evolving, redefining business processes to achieve business architecture (BA) which is the basis for subsequent architectures.

With these premises, have been constructed the partial architectures, the first is the business architecture.

### Business Architecture

The purpose of the BA is to define the business, documenting organizational structure, identifying and defining business functions and processes relying on strategic planning with their areas of interest. The BA involucres some elements of the company like mission, vision, objectives, goals, values and policies; business processes, procedures and functions; organizational structure, situational analysis, customers, markets, products and long, medium and short strategies.

The company of the study case is a medium enterprise that provide raw material to the large steel companies in northeast of Mexico, was founded in 1982 to meet the needs of the industry in the manufacture and machining of metal parts, the machined parts are made through computerized numerical control machines (CNC), the main products manufactured are generally forklift parts, rotating joints, plates thousand holes (clamps, screws, etc) and

<sup>36</sup> Enterprise Architect is trademark of Sparx Systems Corporation [www.sparxsystems.com](http://www.sparxsystems.com)

<sup>37</sup> Protégé Ontology Editor is an editor developed by Stanford University <http://protege.stanford.edu>

various mechanical equipment parts and assembly work. The company has 65 employees. The Figure 3 and Table I presents the data for the BA, with some of its elements.



Figure 3 Elements of the BA

Table I Processes organized by area

Core Processes/ Company area	Process1	Process2	Process3
Distribution	Management of the delivery of the finished products.		
Finance	Management Company's finances		
Human Resources	Personnel administration	Detect training needs of business areas, especially productive areas for develop entrepreneurial training program	
IT	Provision of information technology, support for company's business processes		
Quality	Check during the manufacture that meets production the specifications levels	Testing and inspection using ultrasonic methods or industrial inspection	Identify causes of non-conformity in items or lots and take corrective action
Sales & Marketing	Management clients.	Continuous communication with customers to identify needs and complaints.	
Product development	Program production cycles	Cutting, marking, machining and forming of steel plates and profiles	Management of the manufacturing process, Calibrate equipment periodically

In the Table I Elements of the BA are presented, organized by business area, the core processes are described, all for achieving the objectives and goals of the company.

The structure of the company has 4 levels, corresponding to the CEO and Sales manager the tops position, Head of production machining, Head buyer, Head finance and Human resource manager, and other levels has Supervisors for machining and pailer areas.

Compete in the regional market of Mexico and has a local quality certification, the strategy is to produce with high quality that markets demanding.

## Application Architecture

The application architecture contains the software products that the company has for support the processes; objectives, principles and capabilities that govern this architecture are presented in Table II.

Table II Objective, principles and capabilities

AA, Application Architecture	Name	Description
Objective	Define the best kinds of applications to manage data and support business processes	Define the best applications that support the business processes
Principle	Customizing minimum packaged applications	Minimize app package, customization will improve the ability to ensure ongoing maintenance and maximum value obtained from the adoption of a package solution
Capabilities	Analysis, design, programming and implementation of information systems Search packaged solutions tailored to the needs of the SME's Provide technical support for software and hardware throughout the company	Domain in the analysis, design, programming and implementation of IS Domain in search packaged solutions tailored to the needs of the SME's Domain to provide technical support for software and hardware

The objective of AA is "Define the best kinds of applications to manage data and support business processes with minimum packaged applications, the capabilities for the management of the AA are "Analysis, design, programming and implementation of information systems, search packaged solutions tailored to the needs of the SME's and provide technical support for software and hardware in all the company. Some of the current applications are presented in Table III. In this case the applications are related to the processes that support in the firm.

Table III Values for instances of the AA

Name	Description	Performed by the rol	Domain of App	Performed by business processes	
Domain	Stock Information System	Management of the inputs and outputs of the company general store	Stock Warehouse manager	Update catalog of items,Articles inventory processing	Registry inputs and outputs of goods and raw materials.
	Quality	Spreadsheets records quality of finished products	Quality	Data of finished products according to production plan	Verify the manufacturing process according especifications with production
	Client IS	Manage Client Portfolio	Sales, Head of Sales	Update Clients Portfolio,Electro nic Billing	Manage Client Portfolio

## Technology Architecture

The technology architecture (TA) represent the computational equipment that support the applications for operation of the company. The objectives, principles and capacities of TA are displayed in Table IV.

Table IV Basis for TA

TA: Technologica I Architecture	Name	Description	Support Technolgy Principle	Capabilities
Objective	Technology infrastructure consolidation	The technology infrastructure will be consolidated in the company	Minimum diversity of technological products	Services management software, hardware platform services
Principle	Minimum diversity of technology products	Minimum diversity for better maintenance of equipment		
Capabilities	Communication and networking services Security services and technical support Software management services Hardware platform services Integration and implementation services Monitoring services	Ability to acquire, install and configure networking and communication. Ability to detect and correct faults in computer equipment Ability to manage all software Ability to manage hardware platforms Ability to integrate data from various sources Ability to monitor processes		

The consolidation of the technology infrastructure is the main objective with minimum diversity for maintenance purposes. The capabilities are complex because TA manages communications, networks, provides technical support and various services like platforms, integration and monitoring. The Figure 4 presents the equipment.

The company has one server with 9 computers in the local area network, one shared printer provides printing services. Areas like quality, purchasing, sales, production, design, finances, human resources and the CEO are supported by the equipment. In one equipment can be runned various applications.

The Table V summarizes the results of the architectures integration with processes, applications and technology that supports the application.



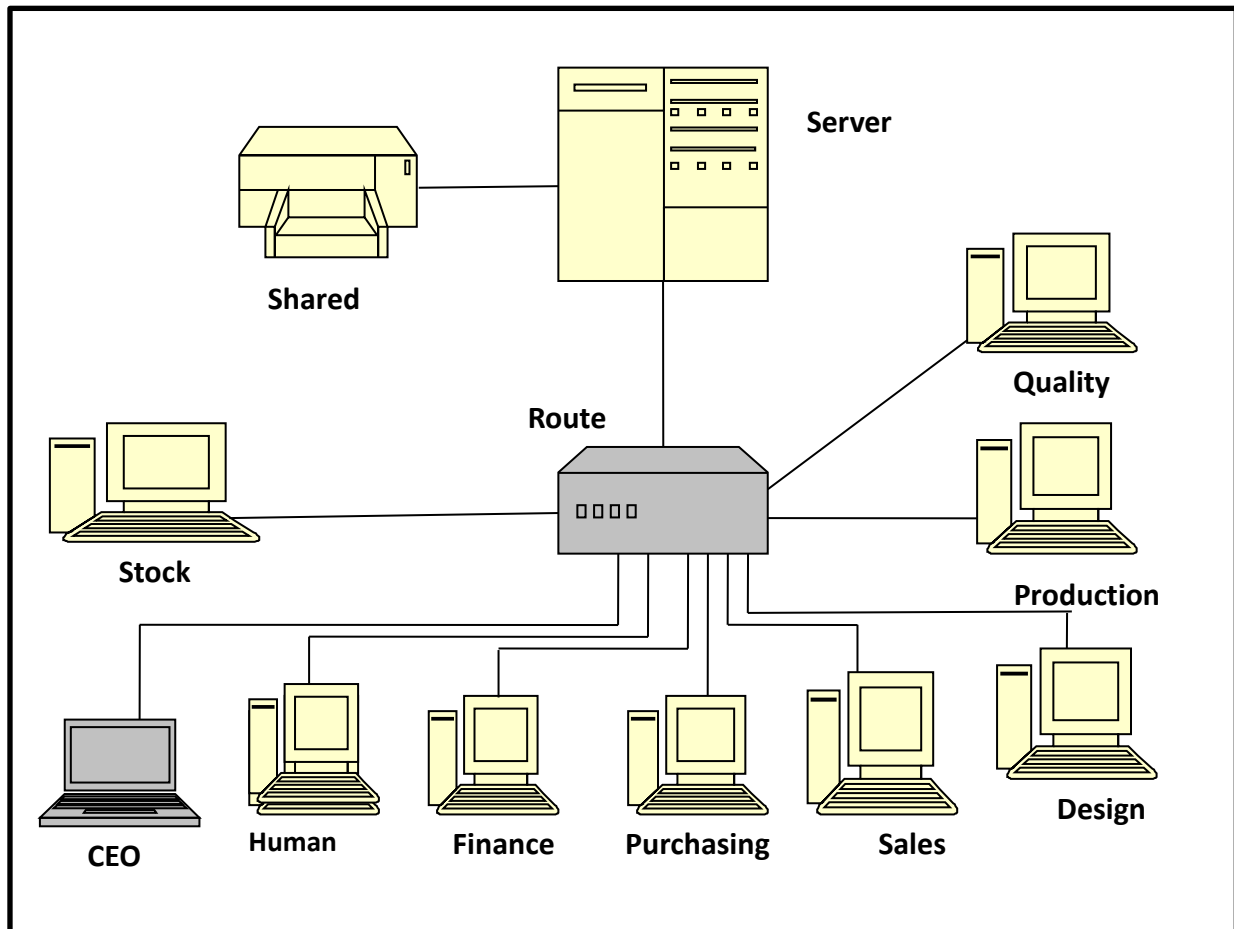


Figure 4 the computational equipment

### The Change plan and assesment of the options change

Two processes are not supported by applications and technology, these are: Training and Shipment. The assessment of the options change includes costs for developing projects in these processes. Involving equipment, people, programs, time and the integration with other information systems

### Gaps identified by applying the methodology

- Organizational restructuring, strategy long-term growth, investment in ICT to increase competitiveness and growth into new domestic and international markets.
- Establish a definition of roles and functions and policies for recategorizing.
- Get an open line of credit to finance the plan expansion and the purchase of equipment and machinery.
- Competition is intense in this sector of the industry, to achieve a better position in the market is necessary to identify and select new potential customers, increase advertising in all media, expand sales channels and follow up to the customer service.
- Fostering a culture of total quality in whole company.
- The change plan is long term and includes management activities to be closing gaps encountered and the adquisition and implementation of information systems and technology.

*Table V Results of integration*

Areas	Process 1	Process 2	Process 3	Process 4	Application	Technology
Quality	Controls of input materials, componentes and cosumables	Verify the production plan meets especifications	Testing and inspection using ultrasonic methods or industrial inspection	Identify causes of non.confomity in items or lots and take corrective action	Spreadsheets	Computer connected to LAN and internet access
Training	Planning and monitoring The Training Business Plan	Detect training needs of business areas, especially productive areas			<u>There is no application for this process</u>	<u>There is no technology for this process</u>
Shipments	Shipment management of finished products				<u>There is no application for this process</u>	<u>There is no technology for this process</u>
Billing	Billing management				Billing information system	Computer connected to LAN and internet access
Production / Machining and Pailer	Program production cycles	Cutting, marking, machining and forming plates and steel profiles	Management of fabrication process	Calibrate equipment periodically	Production information system	Computer connected to LAN and internet access
Sales	Sales management	Detecting customer needs			Clients Information System	Computer connected to LAN and internet access

**Conclusion:**

The Enterprise Architecture methodology applied in this medium business has detected the elements shown with a strong emphasis on the changes that are required for the purpose of aligning the processes with ICT.

The application of the methodology has been successful in the mid-market as it has produced a series of changes within the company to achieve the integration of processes which has improved production rates and competitiveness.

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# ECONOMIC GROWTH AND PROSPERITY IN DIFFICULT CONDITIONS AT THE BEGINNING OF THE 21<sup>st</sup> CENTURY<sup>38</sup>

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## Abstract

Beginning of the 21st century can be specified as a period characterized by the reversal in the direction of intensifying pessimistic expectations regarding the possibility of overcoming the consequences of the global financial and economic crisis in a relatively short timeframe. The complexity of the problem requires finding of the solutions in collaboration of scientists from different disciplines, as well as cooperation theorists and economic policy makers, particularly in their orientation on real resources and their effective use. The paper is based on the identification of problems related to the long term revaluation of the importance of economic growth, and underestimation of the importance of prosperity as well as the comparison of the values of indicators of economic growth and prosperity (the subject of our interest are the EU countries), in order to justify the need for modifications to their perception, specify their interdependence and identify the primary determinants that may play a positive role in ensuring sustainable economic growth rate, and to increase the level of prosperity in the current difficult conditions. Implementation objective entails the application of holistic approach.

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**Keywords:** Economic growth, prosperity, globalization, indicators, financial and economic crisis

## Introduction:

Questions of the sense of human activities were raised by scientists from different scientific disciplines since the past as well as nowadays. In view of the limited extent of this paper, the subject of our interest will be perception of the sense of economic activities. Is really any economic activity reasonable? What is the basis for presuming that certain economic activities except the profit motive, personal benefit of some individuals are not justifiable? If such economic activities exist, are these only exceptional cases and therefore they are not worth being paid attention or is it a not negligible range of economic activities? Is not exactly the current global financial and economic crisis the greed of gain reflexion of several individuals? The seriousness of the problem is even greater as it is not a specific case of behaving of a few individuals in a few countries, within a region, but it is a problem of a global character. Another fact which should be taken into consideration is intensification of pessimistic expectations regarding possibilities of overcoming the consequences of the global financial and economic crisis in a relatively short horizon. Complexity of problems requires looking for solutions in cooperation of scientists from various scientific disciplines as well as cooperation between theorists and creators of economic policy.

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<sup>38</sup> The paper was elaborated within the project VEGA No. 1/0174/11 Determinants of Forming the Knowledge Economy in the Context of the New Economic Strategy of Europe 2020.

**Shift in perception of economic growth – possibility or necessity:**

In economic theory the economic growth is defined as the increase of production in time or increase in income per capita. Respective authors who deal with the issues of economic growth pay attention mainly to the factors which influence the economic growth and its rate or to the identification of the share of respective factors on the increase of production. Inhomogeneity of opinions has led to the formation a wide spectrum of theories and models of economic growth. To the most famous undoubtedly belong neoclassical, Keynesian, endogenous (new) or institutional theories and models of economic growth. Names of economists as Paul H. Douglas<sup>39</sup>, Robert M. Solow, Trevor W. Swan, Roy F. Harrod, Ewsey D. Domar, Alvin H. Hansen, Nicholas Kaldor, Robert B. Barro, Paul M. Romer, Robert E. Lucas, and Walt W. Rostow are fundamentally connected with the given topic and their contribution is generally accepted. Detailed analysis of their work and specification of their views on the factors conditioning economic growth is, however, not the subject of our interest.<sup>40</sup> Long-term priority focus on economic growth, one-sided concentration on achieving the highest possible rates of economic growth, confusing the means for the goal has led to forgetting the fact that sense of activities in human society should be the human being with its needs meeting of thereof will provide a happy and satisfying life. Of course, if it is supposed for the biggest possible part of society.

After the Second World War and formation of two different socio-economic systems the effort to prove the advantages of the system came to the foreground in that way that the individual countries were overtaking in that how high rate of economic growth they are able to ensure as well as emphasizing the need of formation of welfare states. It could seem that economic growth should have been the condition of formation of the welfare states.

Paradoxically, the extensive economic growth in combination with growing government interventions into economy which were manifested in the significant increase of the share of government expenditures on GDP,<sup>41</sup> in the increase of deficits and public debt, did not lead to the increase of welfare, but to an ineffective allocation of limited resources, to excessive consumption of the minority part of population in the national, regional as well as global context at concurrent increase of that part of population which was on the poverty line or in its close proximity.

At the end of the 1960s the Club of Rome pointed out the unsustainability of long-term orientation on high rates of economic growth<sup>42</sup>, which by means of its reports drew attention to possible consequences of global problems of mankind. In the year 1972 the work with title

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<sup>39</sup> American economist Paul H. Douglas cooperated with the mathematician Charles Cobb at verifying his production function on specific statistical material. The basis for them were the data from the period of years 1899 – 1922, while they analysed the connection between the volume of output and size of engaged production factors, namely labour and capital.

<sup>40</sup> Approaches of respective authors are contained in referenced sources and a brief characteristic of these theories and models of economic growth is included in the textbooks of Economics, Macroeconomics or in the textbooks of the History of economic theories, e.g.: Lisý, J. et al.: *Ekonomía*. Bratislava: Iura Edition, 2011. Holman, R.: *Dějiny ekonomického myšlení*, Praha: C. H. Beck, edition III, 2005. Lisý, J. et al.: *Ekonomický rast a ekonomický cyklus*. Bratislava: Iura Edition, 2011. Lisý, J. et al.: *Dejiny ekonomických teórií*. Bratislava: Iura Edition, 2003.

<sup>41</sup> When comparing the share G/GDP in the years 1960, 1985 and 1990 there is a clear increase of this share up to the year 1985, and subsequently in the majority of countries there is certain decrease of this share. For documenting this statement it is possible to mention the situation in certain EU countries: Germany (32,5; 47,2; 45,2), France (34,6; 52,4; 49,8), Denmark (24,8; 59,5; 58,3), Ireland (28,0; 54,6; 42,4), the Netherlands ( 33,7; 60,2; 54,1), Sweden (31,1; 64,5; 59,1). To the contrary, in Greece there was permanent increase (17,4; 43,2; 52,5). In: McNutt, P.: *The Economics of Public Choice*. Cheltenham: Edward Elgar, 1996, pp.76 - 98.

<sup>42</sup> In the year 1968 was formed the association of theorists as well as professionals from practise, later known as the Club of Rome the aim of which was specification of reasons, links and consequences of global problems of mankind.

*The Limits of Growth* was published.<sup>43</sup> Its authors were looking for the answer to the question if the limits of economic growth exist. They supposed that if the rates of economic growth were increased exponentially, the limits of growth would be reached before the year 2100. They could see the solution in removing this tendency of constant increase of economic growth rates and achieving ecological and economic balance. Requirements of the change of orientation to zero and later organic growth are also connected with the Club of Rome. Particularly, in the second report of the Club of Rome there was stated that the problem is not the growth itself, but cancerous, undifferentiated economic growth which must be changed into the organic growth. The organic growth represents the growth in the system in which the individual parts of the system are interconnected and interdependent.

In the further period we encounter the requirements for ensuring the long-term sustainable economic growth respecting ecological limitations or with the requirements for ensuring the intelligent growth (based on knowledge and innovation), sustainable growth (support of more efficient resources, competitiveness), or inclusive growth (based on ensuring the full employment, social and territorial cohesion).

From the report of The World Economic Forum<sup>44</sup> arise requirements for ensuring the sustainable global economic growth, global and balanced economic growth or green growth. We particularly state two quotations from the given report which document these requirements:

“We can start by dispelling the myth that economic growth and low-carbon, environmentally-sensitive development are competing objectives. A growth model that improves resource efficiency and mitigates climate change also generates a number of mutually reinforcing benefits, including accelerated job creation, healthier populations, expanded access to secure energy supplies and sustained global economic growth” (p.3)

“The concept of green growth began to take hold in 2008 at the Pittsburgh G20 Summit, where leaders launched the *Framework for Strong, Sustainable and Balanced Growth*. The Framework was again referenced in 2009 at the G20 Summit in Korea, where leaders put a high global priority on green growth, while also starting a new innovation at the Summit, creating the Business 20 – or “B20” – as an invitation to leading businesses to provide formal input. The 2010 B20 Working Group IX published a comprehensive report, *Creating Green Jobs*, which made several recommendations about the business and social opportunities of a smarter approach to green investment”. (p.5)

Regardless of what attribute we assign to the economic growth, we do not change the perception of economic growth as the goal of activities in the society. Economic growth is undoubtedly important, however, it should be perceived as the means to achieving the national prosperity as well as individual prosperity.

### **Several notes to perception of prosperity and choice of prosperity indicators**

Is prosperity clearly defined? Do we encounter with the stricter as well as broader definitions of prosperity? Can we be considering various types of prosperity? What creates national prosperity and what can help the countries to achieve higher prosperity from the point of view of scientists in the past and nowadays? Which factors are dominant? Which indicators provide us with information on behaviour of individuals and governments from the point of achieving the modification of perceiving prosperity? Is there justification for strict orientation on national prosperity or is the current emphasis of the importance of identification of personal prosperity of individual members of society desirable?

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<sup>43</sup> Meadows, D, Meadows D., Zahn, E., Milling, P. (1972.) *The Limits of Growth*. The Report to the Club of Rome, N.Y. 1972

<sup>44</sup> The World Economic Forum. The Green Growth Action Alliance: Progress Report from the First Year of Catalysing Private Investment. Geneva, Switzerland, 2013. REF 106 613, pp. 1-23

There is no generally accepted definition of prosperity. Prosperity is sometimes interpreted as a synonym for wealth, welfare, success, boom, comfort, health, luxury, state of pleasure, big happiness or luck, successful social status (Jackson, 2009; Seligman, 2002; Legatum Institute, 2012), sometimes as a unity of two equivalent parts of material wealth and welfare (quality of life, subjective welfare).<sup>45</sup>

Current conditions play an essential role in the direction of intensifying the need for correction of their perception. In case of wealth these are the following problems: problem of exact definition of wealth, quantification of wealth, problem of wealth concentration by minority elite and changing structure of wealth in the symbiosis with the effect of wealth, glorification of wealth, confusing wealth for welfare, confusing individual and social welfare. Further problems are connected with the identification of motives which lead individuals and households to creation and accumulation of wealth. Identification of motives creates prerequisites for adjusting behaviour. New perception of wealth and new approach to wealth is reflected in the integrity of material and intellectual wealth, in the preference of the real wealth before the virtual wealth, in the integrity of wealth and welfare.

A serious problem is changing wealth for welfare, changing individual and social welfare. However, wealth and welfare are not synonyms. Distinguished economist Arthur Cecil Pigou wrote two works which are relevant to mention in this connection. It is the work *Wealth and Welfare* from the year 1919, and the work *Economics of Welfare* from the year 1920.<sup>46</sup> In these works Pigou pointed out on differences between the efforts for maximization of welfare. He refused the chase for wealth and personal benefits as according to his opinion the abundance of material goods need not mean also the growth of welfare. He pronounced the thesis that economic theory should attempt for qualitative evaluation of different forms of wealth according to the ability to provide for welfare. Pigou himself perceived welfare as economic welfare which can be expressed in monetary form unlike the non-economic welfare which is not measurable. Maximization of welfare was conditioned by distribution of production factors among alternative uses, stability of product formation, amount and stability of income formation as well as income distribution. The higher and more stable income is achieved, the more evenly distributed is the income, and the maximization of welfare will be ensured in bigger rate. According to his opinion, maximization of individual welfares does not necessarily mean maximization of social welfare. It can happen in that case, if the maximization of individual welfares gets into conflict with the maximization of social welfare or then if the scarce resources are used for production which does not lead to the growth of welfare, but to wasting of scarce resources as well as at considerably uneven distribution of income. Other economists also focused on this topic, it is necessary to mention Alfred Marshall, Vilfred Pareto, Nicolas Kaldor, James Mead, John Hicks, Amram Bergson. American economist Amram Bergson in his work *A reformulation of Certain Aspects of Welfare Economics* from the year 1938 presented the exact function of social welfare by giving up the interpersonal comparison of usefulness as well as from value judgements and purely subjective judgements. According to Bergson increase in social welfare is Pareto-efficient if all the alternatives are used, and if at least one person gets to a better position without such situation that somebody else gets to a worse position (Bergson, 1938).

Prosperity is perceived generally or different levels of prosperity are specified. Perhaps the most frequently global, national and personal, economic or human, intellectual prosperity are considered. Prosperity means hope of the safe and peaceful world; it means hope for

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<sup>45</sup> Napoleon Hill claims that money and material goods are essential for the freedom of the body and mind, but at the same time there is something what is more important – harmonic family, friendly relationships, spiritual values.

<sup>46</sup> Pigou, A. C.: *The Economics of Welfare*. 1920. In: Dome, T.: *History of Economics Theory. A critical Introduction*, 1994, pp. 179 - 193.

future generations. Prosperity means elimination of hunger and homelessness, end of poverty and injustice.

In the beginning of the 21<sup>st</sup> century several new indicators were processed which are from our point of view necessary not only to notice, but owing to their broader connections and more complex view to consider them in solving respective current problems. One of the most important indicators of national prosperity is undoubtedly Prosperity Index or Legatum Prosperity Index (LPI) processed by the Legatum Institute.<sup>47</sup> In the report<sup>48</sup> is stated that the aim of the Institute was to contribute to the discussion and to inspire scientists, politicians, public and media to applying the holistic approach to prosperity, what means that two organic parts of prosperity – income (material wealth) and welfare (satisfaction with life, subjective welfare). LPI consists of eight sub-indexes – economy, business relations and opportunities, government, education, health, defence and safety, personal freedom and social capital where every sub-index reflects certain aspect of prosperity. By researching the individual aspects of prosperity information is gained how the given area contributes to the higher level of income and to higher welfare. In poorer countries (average income lower than USD 10,000/person) was growth of material wealth perceived as priority, in rich countries (over 20,000 USD/person) the importance of material wealth decreases. LPI represents the situation in more and more countries. From the initial number of 104 countries, the number of countries later increased to 110 countries and in the year 2012 to 142 countries where 96% of the world population live and 99% of the global GDP is created.

The Happy Planet Index<sup>49</sup> represents an indicator which identifies perception of welfare or satisfaction with own life, life expectancy and ecological footprint which are necessary for sustaining the achieved life standard in the respective country. For the year 2050 were set goals for developed countries – average value of the Happy Planet Index 89, life expectancy 87, ecological footprint for sustaining the achieved life standard 1.7 gha/1 person, for developing countries these aims were moved 20 years later. The positive side is the effort to ensure the same conditions for a long, happy and meaningful life also for future generations.

Human Development Index represents a compound index which reflects the average values in three basic dimensions of human development – long and healthy life, education, amount of gross national product per one inhabitant.

Table 1 shows the order of the EU countries on the basis how the respective countries generally create conditions for prosperity growth. At the same time, the order of countries within the individual sub-indexes LPI enables to specify where the country is successful in comparison with other countries and it is on the contrary unsuccessful. From the EU countries the best conditions for prosperity growth were created by Nordic countries and in the Netherlands, the least favourable conditions are characteristic for Romania, Bulgaria, Greece, and for Lithuania and Latvia. At evaluation of the EU countries also on the basis of two other indexes we find out that to the most successful countries belong Sweden and the United Kingdom, whereas very unfavourable ranking as for the order in case of the Happy Planet Index have 25 countries, what means that their position in the order is 50 or more than 50.

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<sup>47</sup> Legatum Institute is an independent non-party organisation whose research included progressive ideas and policy which supports development of free and prosperous societies. Legatum Prosperity Report 2012.

<sup>48</sup> Legatum Prosperity Report 2012. [www.prosperity.com](http://www.prosperity.com)

<sup>49</sup> Dutch sociologist R. Veenhoven combined the satisfaction with life with the life expectancy as happy years of life. Ecologists M. Wackernagel and W. Rees processed the third organic element of the Happy Planet Index – ecological footprint. The index value = 100 means high satisfaction with the own life, high life expectancy and low ecological footprint. The estimate of biocapacity 1.8 gha/1 person. Satisfaction with the own life is assessed from 0 to 10, the higher the assessment, the higher the satisfaction with the own life. The Happy Planet Index was processed in the year 2006; the authorship belongs to the *New Economic Foundation* in London, an independent *think-and-do tank*, which is focused on paying the attention to ensuring the real economic welfare and on the man who will be able to live a long, happy and fully-fledged life.



The majority of the EU countries are mainly extraordinary demanding as for the natural resources. They consume much higher amount of natural resources than corresponds with their share on the natural resources. It is valid particularly for Luxembourg, Denmark, and Belgium. On the other hand, the most favourable situation as for the requirements for natural resources is in Malta and Rumania. The EU countries are successful in view of the Human Development Index as from 28 countries only two countries have not achieved a very high level of human development – Bulgaria and Romania.

*Table 1 Indicators of Prosperity*

Indicators Country	Legatum Prosperity Index Rank 2012									Happy Planet Index 2012					HDI 2012	
	LPI	Economics	Entrepren.	Government	Education	Health	Safety and	Personal fr.	Social kap.	HPI rank	HPI	a)	b)	c)	HDI Rank	Index
<b>France</b>	21	22	21	18	19	9	31	16	40	50	46.5	6.8	81.5	4.9	20	0.893
<b>Germany</b>	14	6	18	16	15	5	21	12	15	46	47.2	6.7	80.4	4.6	5	0.920
<b>Italy</b>	33	36	37	39	36	19	42	57	38	51	46.4	6.4	81.9	4.5	25	0.881
<b>Belgium</b>	17	21	12	17	17	8	22	20	18	107	37.1	6.9	80.0	7.1	17	0.897
<b>Netherlands</b>	8	14	10	11	11	7	18	9	6	67	43.1	7.5	80.7	6.3	4	0.921
<b>Luxemburg</b>	11	4	5	9	48	1	7	8	16	138	29.0	7.1	80.0	10.7	26	0.875
<b>United Kingdom</b>	13	26	6	7	30	18	20	11	12	41	47.9	7.0	80.2	4.7	26	0.875
<b>Denmark</b>	2	19	1	3	16	16	8	7	2	110	36.6	7.8	78.8	8.3	15	0.901
<b>Ireland</b>	10	25	14	14	14	11	4	4	7	73	47.4	7.3	80.6	6.2	7	0.916
<b>Finland</b>	7	16	3	5	8	12	3	19	5	70	42.7	7.4	80.0	6.2	21	0.892
<b>Sweden</b>	3	5	2	4	12	14	6	5	9	52	46.2	7.5	81.4	5.7	7	0.916
<b>Austria</b>	16	13	17	12	24	10	15	21	14	48	47.1	7.3	80.9	5.3	18	0.895
<b>Spain</b>	23	40	26	26	10	21	29	18	34	62	44.7	6.2	81.4	4.7	23	0.885
<b>Portugal</b>	26	51	28	36	34	28	17	13	67	97	38.7	4.9	79.5	4.1	43	0.816
<b>Greece</b>	49	85	51	48	35	23	38	12	97	83	46.5	5.8	79.9	4.9	29	0.860
<b>Slovenia</b>	24	41	25	29	9	25	14	28	36	87	40.2	6.1	79.3	5.2	21	0.892
<b>Czech Republic</b>	28	30	29	33	22	26	24	45	45	92	39.4	6.2	77.7	5.3	27	0.873
<b>Slovakia</b>	36	56	35	42	26	31	33	40	47	89	40.1	6.1	75.4	4.7	35	0.840
<b>Poland</b>	32	52	38	38	38	34	25	37	46	71	42.6	5.8	76.1	3.9	39	0.821
<b>Hungary</b>	39	68	45	37	20	38	28	68	79	104	37.4	4.7	73.3	4.0	37	0.831
<b>Lithuania</b>	43	82	42	43	18	46	34	93	49	120	34.6	5.1	72.2	4.4	41	0.818
<b>Latvia</b>	47	80	36	44	28	50	50	11	86	11	34.	4.	73.	4.0	44	0.81

								2		8	9	7	3			4
<b>Estonia</b>	35	60	32	25	31	39	39	74	30	11	34.	5.	74.	4.7	33	0.84
<b>Malta</b>	25	32	20	19	46	27	30	24	21	66	43.	5.	66.	2.6	32	0.84
<b>Cyprus</b>	30	37	27	21	25	33	49	34	56	59	45.	6.	79.	4.4	31	0.84
<b>Bulgaria</b>	48	93	41	72	51	49	41	59	85	12	34.	4.	73.	3.6	57	0.78
<b>Romania</b>	60	94	49	77	49	64	67	81	11	75	42.	4.	74.	2.8	56	0786
<b>Croatia</b>	50	59	48	52	56	37	35	10	11	82	40.	5.	76.	4.2	47	0.80

Sources: An Inquiry into Global Wealth and Wellbeing. The 2012 Legatum Prosperity Index™. Legatum Institute. The Happy Planet Index: 2012 Report A Global Index Of Sustainable Well-Being. The New Economics Foundation, www.happyplanetindex.org, well-being b) life expectancy, c) ecological footprint. Human Development Report 2013. Human Development Index, Statistical tables, pp. 154 - 157.

Table 2 The Growth of GDP in EU (%), GNI per capita in PPP USD, % severely materially deprived people

Countries	2008	2009	2010	2011	2012	GNI/per capita 2012	GDP per capita in PPP 2012	% MDP 2011
<b>France</b>	-0.1	-3.1	1.7	1.7	0.0	30,277	108	5.2
<b>Germany</b>	1.1	-5.1	4.2	3.0	0.7	35,431	122	5.3
<b>Italy</b>	-1.2	-5.5	1.8	0.4	-2.4	26,158	99	11.2
<b>Belgium</b>	1.0	-2.8	2.4	1.8	-0.3	33,429	119	5.7
<b>Netherlands</b>	1.8	-3.7	1.6	1.0	-1.2	37,282	129	2.5
<b>Luxemburg</b>	-0.7	-4.1	2.9	1.7	0.3	48,285	272	1.2
<b>United Kingdom</b>	-1.0	-4.0	1.8	0.8	0.2	32,538	110	5.1
<b>Denmark</b>	-0.8	-5.7	1.6	1.1	-0.4	33,518	125	2.6
<b>Ireland</b>	-3.0	-7.0	-0.4	0.7	0.9	28,671	130	7.8
<b>Finland</b>	0.3	-8.5	3.3	2.7	-0.8	32,511	119	3.2
<b>Sweden</b>	-0.6	-5.0	6.6	3.9	0.7	36,143	129	1.2
<b>Austria</b>	1.4	-3.8	2.1	2.7	0.9	36,438	131	3.9
<b>Spain</b>	0.9	-3.7	-0.3	0.4	-1.4	25,947	97	3.9
<b>Portugal</b>	0.0	-2.9	1.4	-1.7	-3.2	19,907	75	8.3
<b>Greece</b>	-0.2	-3.1	-4.9	-7.1	-6.4	20,511	75	15.2
<b>Slovenia</b>	3.6	-8.0	1.4	-0.2	-2.3	23,999	82	6.1
<b>Czech Republic</b>	3.1	-4.5	2.5	1.9	-1.2	22,067	79	6.1
<b>Slovakia</b>	5.8	-4.9	4.2	3.3	2.0	19,696	75	10.6
<b>Poland</b>	5.1	1.6	3.9	4.3	1.9	17,776	66	13.0
<b>Hungary</b>	0.9	-6.8	1.3	1.7	-1.7	16,088	66	23.1
<b>Lithuania</b>	2.9	-14.7	1.3	5.9	3.7	16,858	70	18.5
<b>Latvia</b>	-4.2	-18.0	-0.3	5.5	5.6	14,724	62	31.4
<b>Estonia</b>	-4.2	-14.1	3.3	8.3	3.2	17,402	69	8.7
<b>Malta</b>	4.4	-2.7	2.7	2.1	1.0	21,184	86	6.3
<b>Cyprus</b>	3.6	-1.9	1.3	0.5	-2.4	23,825	91	10.8
<b>Bulgaria</b>	6.2	-5.5	0.4	1.7	0.8	11,474	47	43.6
<b>Romania</b>	7.9	-6.6	-1.6	2.5	0.7	11,011	49	29.4
<b>Croatia</b>	2.1	-6.9	-1.4	0.0	-2.0	15,419	61	14.8

Sources: GDP growth (annual rate %). The World Bank 2013

<http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>, 2013, 1-800-831-0463, Human Development

*Report 2013, pp. 154 – 157, Real GDP growth rate – volume, Eurostat 2013, GDP per capita in PPS, 2013, <http://epp.eurostat.ec.europa.eu/tgm/printTable.do?tab=table&plugin=1>, MDP materially deprived people.*

Comparison of the countries on the basis of data included in Table 1 and Table 2 enables to state that in the most favourable position are these countries – Germany, United Kingdom, and Austria, in the least favourable position Bulgaria, Romania, Croatia, Latvia, Lithuania, Hungary, and Poland. The highest prosperity is not always connected with the countries which have a high GNI/per capita or GDP/per capita, or which have positive rates of economic growth. As an example we can mention Denmark, Belgium, and Luxembourg whose requirements for natural resources are disproportionately high what is reflected in the Happy Planet Index.

## Discussion

Discussions in the given subject area is concerned with four areas:

- Interdependence and conditionality of economic growth and prosperity,
- Need for new perception of prosperity,
- Possibility of more or less exact depicting of prosperity by means of a spectrum of indicators,
- Need for application of a multidisciplinary and multidimensional approach to depicting the position of individual countries in the global context.

If the economic growth is necessary for achieving prosperity or if is in contradiction with prosperity is the subject of discussions. Generally, the fact is accepted that economic prosperity is conditioned by the economic growth what leads to the fact that problems are solved mainly by means of economic growth. However, there are also opinions that achieving prosperity or its maintaining does not require the economic growth as a lot of problems arise just thanks to the economic growth. Sustainable development requires refraining from the idea that the condition of prosperity is growth. As dangerous is also considered persistence of the myth of economic growth when economic growth is perceived as progress and therefore governments are focused on renewal and maintaining of economic growth (Kinsley, 1997, Jackson, 2009). World Economic Forum in Davos (2009)<sup>50</sup> pointed out to the fact that economic crisis showed that it is necessary to deal with the essence of economic growth, because it is economically and ecologically unsustainable.

The subject of discussions is also the question of perceiving prosperity. Discussions are concerned with the questions related to the overestimating economic prosperity or not fully appreciating the importance of necessity of broader perception of prosperity. Complexity of the current situation in the global scale even more highlights the urgency of the shift in perception of prosperity.

Heated debates concern also the suitability or unsuitability of use of individual prosperity indicators. To specify the situation within individual countries or to try to make comparison among the countries is not possible on the basis of one single indicator. Despite various objections which in connection with processing the individual indicators come into existence, each of them has a certain information value. If some countries are successful from the point of view of more indicators or other countries, on the contrary, are not successful, it should evoke interest in creators of economic policy to analyse the reasons which cause these differences. Subsequently also finding solutions and suitable measures for correction of negative development.

Another area which arouses discussions is the willingness to accept multidisciplinary and multidimensional approach as the necessary precondition of catching the real state not only in

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<sup>50</sup> The Happy Planet Index: 2012 Report. A global index of sustainable well-being . New Economic Foundation. [www.happyplanetindex.org](http://www.happyplanetindex.org)

the national, regional or also global scale. Evaluation of ranking of individual countries without taking into consideration their specifics is not bearable. Multidisciplinary and multidimensional approach creates space for creating new indicators which will enable to gain even more complex idea of the situation in the individual countries from the point of view of creating conditions for growth of prosperity. By generalization of theoretical and empirical knowledge from various scientific disciplines the essence of problems as well as their possible solutions can be identified.

### **Conclusion:**

Global financial and economic crises only intensified the discussions which concerned the economic growth and prosperity, measuring the economic growth and prosperity, looking for the most suitable indicators reflecting the real state in the respective countries. Despite the different opinions on solving problems and looking for ways out it can be stated that there exists consensus in that the impacts of the global financial and economic crisis are not evenly distributed on all countries or on all subjects. At the same time the opinion prevails that the increasing differences and economic disparity are deepened. In these difficult conditions the necessity to reassess the existing approaches is increasing as well as taking into consideration the effects of the present day decisions on the future generations, identification of side effects as well as cumulative effects of present decisions.

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# NATIONAL PRODUCTIVITY OF THE SOUTHEAST ASIAN COUNTRIES

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## Abstract

Since the financial crisis of 1997, Southeast Asia's fast recovery and continued development has surprised the world. This paper investigates national productivity of the ten Southeast Asian countries. The high national productivity explains why the economy of this region developed steadily after the financial crisis. From the viewpoint of labor productivity and capital productivity, the ten countries are classified as high-productivity, low-productivity, labor-intensive, and capital-intensive countries. Together with another indicator used by many economists to represent living standards, GDP per capita, the Southeast Asian countries are categorized into four types: fast growing-moderate living standards, fast growing-low living standards, stable growing-high living standards, and slow growing-low living standards. Categorization into corresponding groups facilitates subsequent inference regarding their characteristics and stage of economic development. More importantly, weak areas are identified for future improvement.

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**Keywords:** Productivity, competitiveness, Southeast Asia

## Introduction:

Southeast Asia is a region with abundant natural resources. Its half billion people provide a sufficient labor force for economic activities. Each year, a collective gross domestic product (GDP) of nearly one trillion US dollars is generated. The ten countries of the Association of Southeast Asian Nations (ASEAN), Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam, have close political, economic, and cultural relationships. Following the lead of Japan and the four tigers of Asia-Hong Kong, Korea, Singapore, and Taiwan, the flying-geese model (Cutler et al. 2003, Dowling and Cheang 2000, Ozawa 2003) properly explains how this region has experienced impressive economic development in the 1980s and 1990s.

Despite the Asian financial crisis of 1997, the region recovered in a very short period of time to attain a high growth rate. This high growth rate has continued, even through the worldwide economic slowdown in 2000-2002. The ratio of exports and imports to GDP in the region is over 20%, which is higher than the world average (World Bank web). As the ASEAN Free Trade Area (AFTA) becomes a reality, trade in this region is expected to be more vigorous than before, which will undoubtedly trigger the growth of world trade and GDP. It is thus worthwhile to investigate the performance of this region in economic development.

There are a lot of indicators for measuring the performance of a unit, of which productivity is probably the most widely used. Generally speaking, productivity measures the efficiency of converting a set of inputs to a set of outputs. Lower productivity implies that larger amount of inputs must be consumed to produce a fixed amount of outputs. Thus, at the firm level, a decline in productivity means an increase in production costs and therefore a deterioration of the competitiveness of the firm. In a similar vein, at the country level, a decline in productivity can lead to slow economic growth and therefore a deterioration of the

competitiveness of the country. Higher productivity can lead to higher living standards, for it is only by producing more efficiently that we create the possibilities of a larger total of goods and services in which we can all share. There are many articles (Dewan and Kraemer 2000, Gomory 1995) that address the topics related to national productivity. However, due to difficulty in data collection, a complete discussion of national productivity of the Southeast Asian countries from the economic point of view is still lacking. This paper tries to measure the national productivity of the ten Southeast Asian countries.

In the sections that follow, firstly, we discuss the methods for measuring national productivity. Next, we describe how the data was collected to measure the national productivity of the ten Southeast Asian countries in the period of 1999-2001. In addition to investigating the national productivity of the Southeast Asian countries, how they compare to each other is also discussed. Finally, some conclusions are drawn from the discussion.

### **Productivity Measurement:**

Productivity is generally defined as the ratio between input and output in a specified period of time for measuring the transformation efficiency. The contents and dimensions of the inputs and outputs specify different kinds of productivity (Kurosawa 1991). From the viewpoint of dimensions, there are physical and value productivity, where the outputs are measured in units and monetary terms, respectively. Regarding contents, there are single factor productivity and total factor productivity (TFP), where the former is related to each of the factors of production while the latter is concerned with the total of the factors of production. Since the production factors are generally categorized as labor and capital, the most popular kinds of single factor productivity are labor productivity (LP) and capital productivity (CP) (Craig and Harris 1973, Sumanth 1984).

There are two approaches for measuring TFP. One is the econometric approach, where the output (or value-added) is expressed as a function of the inputs multiplied by an efficiency parameter. The other is an index number approach which defines TFP as the ratio of the aggregated output to the aggregated input (Bitran and Chang 1984). The inputs are separated into labor inputs and capital inputs so that LP and CP can be calculated (Kendrick and Creamer 1965):

$$TFP = \frac{\text{Value-added}}{\text{Labor inputs} + \text{Capital inputs}}, \quad (1a)$$

$$LP = \frac{\text{Value-added}}{\text{Labor inputs}}, \quad (1b)$$

$$CP = \frac{\text{Value-added}}{\text{Capital inputs}}. \quad (1c)$$

The study of Kao et al. (1995) is of this approach. In Equation (1), usually the three components, viz., value-added, labor inputs, and capital inputs, are represented in monetary terms, so they have a common base for comparison and combination. The ratio represents the value of outputs generated from each dollar value of inputs. The econometric approach, on the other hand, when being applied, does not require all three components to have the same units. The interpretation is usually economical, for example, the elasticity of the output with respect to each input factor. Since the purpose of this paper is to investigate the amount of value-added that can be generated from each dollar value of inputs, the second approach is used.

For a business unit, value-added is the net contribution of its input factors through a production process during a specific period. Labor inputs are the expenses related to employees and capital inputs include fixed capital inputs and working capital inputs. At the country level, value-added can be considered as the net contribution generated by the country's economic activities. In this sense, GDP, which is the value of final goods produced within the country, is a suitable measure. Regarding labor inputs, the total remuneration of all

employees (TR) in the country can be used for representation. Due to the availability of data, TR is calculated as the product of the average remuneration per employee (AR) and the number of employees (NE). Finally, capital inputs are composed of foreign direct investment (FDI) and domestic direct investment (DDI). The sum of these two is called gross capital formation (GCF) and is used as the capital inputs of the country. To summarize, the national productivity (NP), labor productivity at the country level (LP), and capital productivity at the country level (CP) are calculated as:

$$NP = \frac{GDP}{TR + GCF}, \quad (2a)$$

$$LP = \frac{GDP}{TR}, \quad (2b)$$

$$CP = \frac{GDP}{GCF}. \quad (2c)$$

When expressed in monetary terms, national productivity shows how much value of GDP is generated from each dollar of inputs (a combination of labor and capital). Similarly, labor productivity and capital productivity show how much value of GDP is generated from each dollar input of labor and capital, respectively. If labor (or capital) productivity is high, then this country is labor (or capital) efficient. However, one must bear in mind that the single factor productivity can give misleading indications. The level of labor (or capital) productivity could be improved by raising the amount of capital (or labor) inputs; in other words, at the expense of capital (or labor) productivity. Therefore, the interpretation of specific single factor productivity must be accompanied with others at the same time.

A simple mathematical manipulation shows that national productivity is one-half of the harmonic average of labor productivity and capital productivity:

$$NP = \frac{1}{\frac{1}{LP} + \frac{1}{CP}} = 0.5 \frac{2}{\frac{1}{LP} + \frac{1}{CP}}. \quad (3)$$

Increasing both LP and CP by the same proportion  $k$ , NP will be increased by proportion  $k$  as well.

### Data Collection:

From August 2001 to July 2004, a three-year project regarding the investment environment of the Southeast Asian countries was conducted by a research team at National Cheng Kung University with the financial support of the National Science Council of the Republic of China. One objective of that project was to calculate the national productivity of the ten Southeast Asian countries. With the help of scholars from the universities of those countries, the University of Brunei, Royal University of Phnom Penh, University of Indonesia, National University of Laos, University of Malaya, University of Yangon, University of the Philippines, Nanyang Technological University, Chulalongkorn University, and University of Economics- HCMC, the data required for calculating national productivity were collected from publications of world organizations and government reports. Most of the data are available on public websites. The period covered is 1999, 2000, and 2001. To grasp a general idea of the national productivity of those countries and to avoid unstable results caused by data fluctuation in individual years, three-year averages were used to calculate one single productivity measure for the three-year period instead of three productivity measures for three individual years. Table 1 shows the data for GDP, AR, TR, and GCF of the ten countries. The units are in US dollars.



*Table 1. GDP, average remuneration (AR), total remuneration (TR), and gross capital formation (GCF) of the ten Southeast Asian countries in US dollars.*

Country	GDP (10 <sup>6</sup> )	AR	TR (10 <sup>6</sup> )	GCF (10 <sup>6</sup> )
Malaysia (My)	85746	4534*	41857	11314
Indonesia (I)	145844	825	74279	21336
Philippines (P)	74095	1260*	35955	13396
Singapore (S)	89172	20742	41732	26619
Brunei (B)	4982	16994*	2437	1500*
Myanmar (Mm)	6420	246*	4858	752
Cambodia (C)	3348	469*	2531	512
Thailand (T)	120033	2652	82980	26410
Laos (L)	1637	-	1235*	363
Vietnam (V)	30942	691	25463	8677

\* Data are unavailable and are estimated from other sources.

Most of the data were collected from publications or websites such as the Asian Development Bank, ASEAN, EIU, World Bank, and World Development Indicators Database. Data for Vietnam for all three items, viz., GDP, TR, and GCF, were collected by scholars at University of Economics-HCMC from General Statistics Office (GSO), Vietnam. Some data were not available and had to be estimated by professors in local universities.

### ***Productivity Analysis:***

By applying the data contained in Table 1 to Equation (3), the labor productivity, capital productivity, and national productivity of the ten Southeast Asian countries are calculated as shown in the last three columns of Table 2. The average LP of the ten countries is 1.6885 and the average CP is 5.4315. Figure 1 is a scatter diagram of the ten countries where the horizontal axis is labor productivity and vertical axis is capital productivity. This figure clearly shows that the ten countries are separated into two groups, one with high LP and the other with low LP. Singapore, the Philippines, Malaysia, Brunei, and Indonesia belong to the first group. They have an LP measure greater than 1.95 and are considered as labor efficient. The other five countries, Thailand, Laos, Cambodia, Myanmar, and Vietnam, belong to the second group. Their LP measures are smaller than 1.45 and are labor inefficient as compared to the first group.

It is also interesting to note that the five labor efficient countries have the highest AR (referring to Table 1). Since the GDP of these countries generated are high enough to compensate the high remuneration rate, their LP measures are still high. Thailand is an exception in this, although it has the fourth highest AR, it is a low-LP country.

*Table 2. GDP per capita, national income (NI) per capita, and productivity measures of the ten Southeast Asian countries.*

Country	GDP p.c.	NI p.c.	Labor P.	Capital P.	National P.
Malaysia (My)	3715	3390	2.0485	7.5788	1.6126
Indonesia (I)	701	613	1.9635	6.8356	1.5253
Philippines (P)	971	1033	2.0608	5.5311	1.5014
Singapore (S)	22530	22180	2.1368	3.3499	1.3046
Brunei (B)	12555	14094	2.0443	3.3213	1.2654
Myanmar (Mm)	279	300	1.3215	8.5372	1.1444
Cambodia (C)	261	293	1.3228	6.5391	1.1002
Thailand (T)	1985	1997	1.4465	4.5450	1.0973
Laos (L)	312	258	1.3255	4.5096	1.0244
Vietnam (V)	401	383	1.2152	3.5660	0.9063
Average			1.6885	5.4315	1.2482

Suppose we denote the coordinates of the average LP and average CP as the origin. Then the LP-CP plane can be divided into four quadrants and the ten countries are categorized into four clusters according to the quadrant they are located in. The first quadrant has three countries: Malaysia, Indonesia, and the Philippines. Since the countries in this quadrant have both high LP and high CP, their NP are of the highest among the ten countries. This cluster is considered as the high-productivity cluster. The second quadrant is the region of low LP and high CP. There are two countries in this quadrant, Myanmar and Cambodia. The high CP measure indicates that they are capital efficient, but they are using relatively larger amounts of labor to generate GDP, as is evident from their low LP measures. Therefore, they are labor-intensive countries and this cluster can be called the labor-intensive cluster.

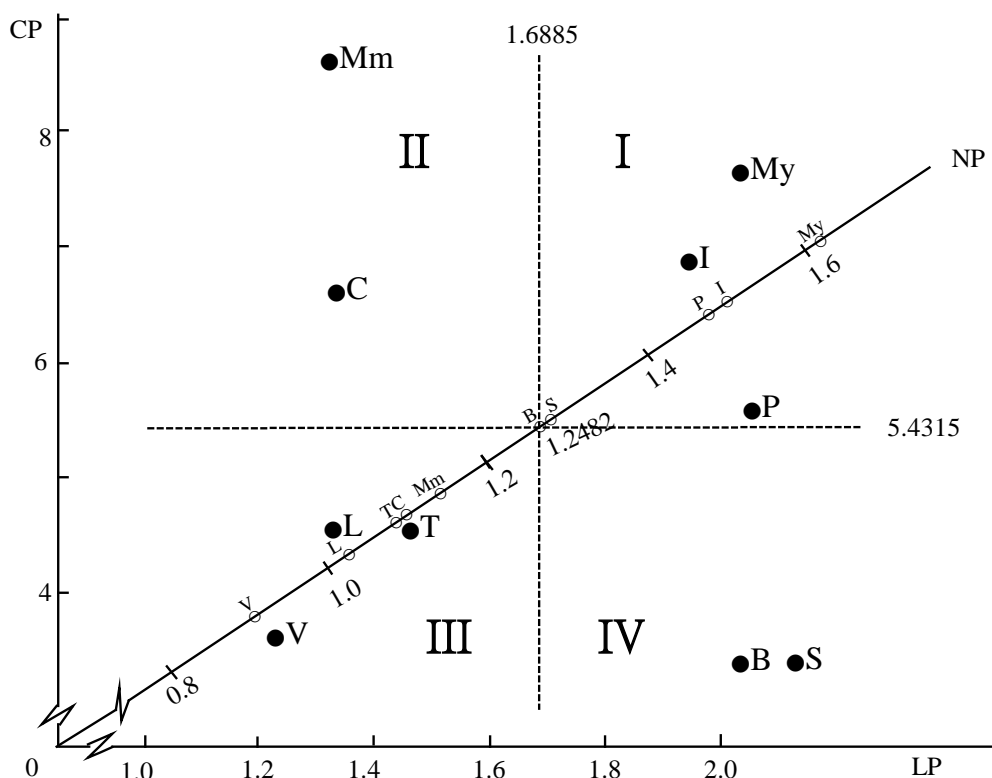


Figure 1. Scatter diagram of the productivities of the ten Southeast Asian countries.

The third quadrant is the region of both low LP and low CP. There are three countries in this quadrant, Thailand, Laos, and Vietnam. Since both the LP and CP are low, the NP measures of these three countries are the lowest among the ten countries, and this cluster is considered as the low-productivity cluster. The fourth quadrant has high LP and low CP.

There are two countries in this quadrant, including Singapore and Brunei. As opposed to the second quadrant, countries in this quadrant are capital intensive because they use relatively high amounts of capital compared to labor in transforming inputs into GDP. This cluster can thus be called the capital-intensive cluster. Note that in this example, the capital-intensive countries have higher national productivity than the labor-intensive countries, indicating that capital is more effective than labor in generating GDP.

As shown in Equation (3), national productivity is one-half of the harmonic average of labor productivity and capital productivity. It is very difficult to express this relation in the LP-CP plane of Figure 1. To simplify the expression, we use a straight line passing through the origin (0, 0) and the point (1.6885, 5.4315), which is the intersection of average LP and average CP, to represent the axis of NP. The order and relative scale of the NP measures of the ten countries are shown on the NP-axis. This axis functions like a regression line. Each

country is projected onto this line according to the NP measure. The average NP of the ten countries is 1.2482. Figure 1 shows that the countries in the high-productivity cluster are located in the leading position of the NP-axis. Countries in the capital-intensive cluster have NP measures which are a little higher than the average while countries in the labor-intensive cluster have NP measures which are lower than the average. Finally, countries in the low-productivity cluster are located in the trailing position of the NP-axis.

As described in the preceding section, productivity is the value of GDP generated from each dollar of inputs. The higher this value is, the more efficient is the transformation of labor and capital into GDP. In this sense, a country of high NP is more competitive than a country of low NP. From the position of the ten countries on the NP-axis shown in Figure 1, a visual inspection categorizes them into six groups. Malaysia, as the only country in the first group, has the highest NP, followed by the second group of Indonesia and the Philippines. Countries in these two groups are developing at a relatively fast pace. Then there is the third group of Singapore and Brunei. Their NP measures indicate that their economic development have reached a stable status, they are growing steadily. The fourth group is composed of Myanmar, Cambodia, and Thailand. Finally, there is the fifth group of Laos and the sixth group of Vietnam. Countries in the last three groups are growing at a relatively slower pace. The NP measures more or less indicate the competitiveness of the ten countries.

GDP is the value of final goods produced within a country. When it is divided by the population to yield GDP per capita, it can be used for comparing living standards across periods of time or among different countries. The second column of Table 2 shows GDP per capita of the ten countries. For Malaysia, although it is the most competitive country (as indicated by its highest NP measure), its living standards are in third place (as indicated by its third highest GDP per capita). Indonesia and the Philippines have the second highest NP measures, yet their living standards are in fifth and sixth place. Singapore and Brunei are in the third group of NP measures; however, their living standards are the best and are much better than the other countries, with Singapore considered a developed country. Except for Thailand, the remaining five countries all have small NP measures and low GDP per capita. The small NP measure of Thailand is a warning to this country. Its position of being ranked fourth in living standards (as indicated by its fourth largest amount of GDP per capita) will be under threat if its NP is not improved in the future.

### **Conclusion:**

The economic development of Southeast Asia has been and continues to be very fast. On the one hand, this fast development triggers the economic development of some countries; on the other hand, it weakens the relative competitiveness of other countries. Since high national productivity implies faster economic growth and consequently stronger competitiveness, this paper proposes a method for calculating national productivity to measure the performance of economic development. NPs of the ten Southeast Asian countries are also calculated.

From the measures of labor productivity and capital productivity, the Southeast Asian countries are classified as high-productivity, labor-intensive, capital-intensive, and low-productivity. Of the ten countries, Malaysia, Indonesia, and the Philippines are high-productivity; Myanmar and Cambodia are labor-intensive; Singapore and Brunei are capital-intensive; and Thailand, Laos, and Vietnam are low-productivity.

Based on NP measures and GDP per capita, which is a yardstick of living standards, the ten Southeast Asian countries can be categorized into four groups. The first is fast growing-moderate living standards group, and. Malaysia is the only country in this group. The second is fast growing-low living standards group. There are two countries in this group, viz., Indonesia and the Philippines. The third is stable growing-high living standards group. This group is typified by Singapore and Brunei. The remaining five countries, Myanmar,

Cambodia, Thailand, Laos, and Vietnam, belong to the fourth group of slow growing-low living standards group.

The discussion of this paper is focused on the calculation of productivity. A subsequent and more important issue is how to improve it so that continuous economic growth can be assured. Many studies address this issue from the viewpoint of research and development (Morant 1983, Verspagen 1995). This deserves further exploration.

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# MARKETING SKILLS AS A FACTOR INFLUENCING ADOPTION OF INNOVATIONS ALONG THE MANGO SUPPLY CHAIN IN MERU COUNTY, KENYA

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## Abstract

The study adopted descriptive survey design. The population of the study consisted of Mango Growers in Meru County and the mango traders and exporters. Meru County was chosen due to the good climatic condition that has made it suitable for mangoes production. This study adopted a probability sampling method to select the respondents for the study. Out of 13,442 farmers, traders and exporters, 447 farmers, 12 traders and 2 exporters were randomly selected for interview. Secondary data used in the study was collected from the Ministry of Agriculture Offices while primary data was collected from the respondents using a structured questionnaire with both open and close ended questions. Both qualitative and quantitative data were used in the analysis. Quantitative data obtained from the field was analyzed using descriptive and inferential techniques. The descriptive techniques adopted were means and frequencies while the inferential technique used were regression and correlation to establish relationship between variables in the study and inferences made. Frequency tables and charts were used to present the findings.

The study found out that majority of the traders/exporters were trained on marketing. They had price knowledge, product knowledge and promotion knowledge and majority adopted innovations unlike the growers who had low marketing skills; this would explain why 39% of the produce goes to waste. On traders/ exporters, a significant chi-square relationship was established with innovation given a chi-square value of 9.620 at  $p=0.047$ .

The study concludes that marketing skills influence buying and selling; and if value chain members had excellent marketing skills, nothing could be going to waste as they would adopt relevant technologies and add value to the produce and meet the customers' needs.

The study recommends that there is need for intense training on market skills on value chain members and stakeholders, either through NGOs and private sector. There is also need for business incubation programs and need to revise training curriculum to cater for marketing skills.

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**Keywords:** Value chain, Marketing skills, agriculture, Mango, adoption, innovation

## Introduction

The agricultural sector in Kenya continues to face major challenges affecting the value chain despite the government proposed a strategy for revitalizing agriculture, 2004 –2014; mainly due to poor productivity, poor land use, lack of markets and value addition. The challenges are exacerbated by the unfavorable institutional framework currently governing the sector (Moturi et al., 2010).

To streamline the challenges in the sector, the Government through its policy document "Vision 2030" aims to promote an innovative, commercially-oriented, and modern agricultural sector through adding value to farm and livestock products before they reach the local and international markets. This will be accomplished through transforming key

institutions in the sector to promote growth, increase productivity, introduce land use policies for better utilization of high and medium potential lands, developing more irrigative areas in arid and semi-arid lands for both crops and livestock, and improving market access for small holders through better supply chain management (Rok, 2008). These interventions should contribute to the adoption of innovations along the mango value chain driven by producers, agents, transporters, processors and traders as key actors in the chain.

The improved processes at all stages of the value chain, from the farm to the consumer, will make significant contributions to an efficient and effective enterprise, with increased profitability at the small-scale production level and at the same time avail quality and safe mangoes and mango products to the Kenyan consumers at affordable prices. According to the ROK (2009), value chain analysis can strengthen the innovation process by determining the contribution of each actor with a view to maximizing synergies and complementarities between actors.

According to Diederer, et al, 2002, agriculture progresses technologically as farmers adopt innovations. The extent to which farmers adopt available innovations and the speed by which they do so determines the impact of innovations in terms of productivity growth. It is a common phenomenon that farmers, like any other kind of entrepreneurs, do not adopt innovations simultaneously as they appear on the market.

Despite them being successful, the agricultural revolution is still dynamic and calls for new innovation systems on a constant basis (World Bank, 2006). Rapid adoption of innovations in developing countries is constrained by lack of credit, limited access to information, aversion to risks, inadequate incentives associated with land tenure arrangements, insufficient human capital, absence of equipment to relieve labor shortages (thus preventing timeliness of operations), chaotic supply of complementary inputs (such as seeds, chemicals and water) and inappropriate transportation infrastructure (Zilberman et al, 1985). Msabeni, et al; (2010) also found out that stakeholders/actors along the mango value chain including producers, agents/buyers, service providers, input suppliers, processors, wholesalers, exporters lacked information on markets and prices.

### **Problem Statement**

For the last forty years during mangoes harvesting season, the researcher has observed that a lot (39%) of mangoes in Meru County go to waste. This is also emphasized by DANIDA report (2010). However, technologies (innovations) exist to arrest this situation but farmers are yet to adopt these innovations.

According to World Bank report (2007), change in market demands affects the production cycle in different ways. It determines the acceptable levels of inputs into production and value addition up to the delivery of the product to the consumer. Firms are effectively making use of their marketing skills (price, product, place and promotion). This has made firms to start competing less on price but on their ability to adapt and produce products that meet the market standards. This in turn has generated innovation globally as high standards continue being adopted.

A study by Msabeni et al; (2010) found out that, out of the total production, 51% of the mangoes from Meru County go both to local and international market. The home consumption is 10% while 39% of the mangoes go to waste, however, technologies (innovations) exist to arrest this situation- raising question, why has the mango growers and traders not adopted the already established technologies? Do marketing knowledge/ skills influence the adoption of innovations along the mango value chain in Meru County? This study sought to fill this gap by investigating whether existence of marketing knowledge/ skills on value chain members would influence the adoption of relevant technologies along the mango value chain in Meru County.

The purpose of this study was to:

Investigate whether market skills influence the adoption of innovations along the mango value chain in Meru County.

### **Research Hypothesis**

H<sub>0</sub>: Marketing skill is not associated with innovation, and

H<sub>1</sub>: Marketing skills is associated with innovation.

### **Review of Related Literature**

Market power has been argued to both encourage and discourage the diffusion process. As Nancy Dorfman suggested in 1987, four major arguments support the positive role of market share in determining the level of innovative activity and these same arguments apply also to the choice to use new innovations, because many of the factors and underlying issues are quite similar at both stages.

Authors such as Feder and Slade 1984; Rees et al., 2000 argue that provided a technology is profitable, increased information induces its adoption. However in the case where experience within the general population about a specific technology is limited, more information induces negative attitudes towards its adoption, probably because more information exposes an even bigger information vacuum hence increasing the risk associated with it. A good example is the adoption of recombinant bovine Somatotropin Technology (rbST) in dairy production (McGuirk, Preston and Jones, 1992; Klotz, Saha and Butler, 1995). Feder and Slade (1984) assert that the right mix of information properties for a particular technology is needed for effectiveness in its impact on adoption.

Rogers (2005) after reviewing 156 studies had generalized that “Earlier adopters have more change agent contact than later adopters”, since 87% of all the studies he reviewed supported such a generalization. Other studies as well have found a significant positive relationship between extension contact and adoption of innovations. Examples of these studies were Mussei et al. (2001), Getahun et al. (2000), Baidu-Forson (1999), Madhukar and Ram (1996), and Abd El-Razek (2002). However some studies found no relationship between the two variables. Examples of these studies were, Bulale (2000), Salama (2001), Getahun et al. (2000), Mussei et al. (2001), and Adesina and Baidu-Forson (2005).

In an analysis of the organizational linkages along the mango value chain, Mbeere District Eastern Province, Kenya, Msabeni, et al; (2010) found out that while there were various stakeholders/actors along the mango value chain including producers, agents/buyers, service providers, input suppliers, processors, wholesalers, exporters and consumers (end users), their linkages were weak since they operated in isolation and lacked information at various levels along the chain. For example, the producers lacked information on markets, producer prices and appropriate agro-chemicals.

According to Msabeni, et al; (2010), lack of market information and prices is a loophole the agents are strongly exploiting, while lack of information on the appropriate agro-chemicals has resulted in the use of sub-standard chemicals thus affecting the quality and quantity of yields. The extension service providers also lack information on changing market needs and are not able to advise the producers appropriately. Bringing various stakeholders together through different forums would strengthen the linkages and improve information flow along the chain (HCDA, 2008).

### **Research Methodology**

This research was guided by the methodology used by Nchinda and Mendi (2008) in the study of yoghurt technology adoption in the western highlands of Cameroon.

### **Research Design**

This study assumed participatory action research to develop innovative technologies and products associated with mangoes. Baseline survey was done.

The study districts included the former Meru Central and Meru North Districts currently known as Meru County. The County lies to the east of Mt. Kenya whose peak cuts through the southwest border of the County. To the North East it borders Laikipia County; to the West it borders Nyeri and Kirinyaga counties, Tharaka Nithi County in the south and Isiolo County to the north.

### Participant (Subject) Characteristics

The study was concentrated on seven divisions, which are highly productive in mangoes as shown in Table 3.1.

*Table: 1.1 Study Areas (Survey figures, 2010)*

Meru County	Study divisions	Area under mango per ha.	Production in Mt (2010)	Number of farmers
	Imenti North	275	2,586.97	910
	Meru Central	1289	14,553.97	4,347
	Imenti South	73	1,011.11	516
	Igembe South	278	3,120.14	4,023
	Igembe North	71	637.37	2,176
	Tigania West	106	783.06	1,074
	Tigania East	31	170.34	396
<b>Total</b>		<b>2,123</b>	<b>22,862.96</b>	<b>13,442</b>

*Source MOA, 2010*

The study area was limited to the lower part of the County whose climatic condition favors the production of mangoes. The population of the study included individual mango farmers, traders and exporters in Meru County. The mango farmers are approximately to be 13,442, traders are 120, while exporters were 12 (MOA Survey, 2000). Therefore, the target population for the study was 13,574 traders, farmers and exporters.

### Sampling Technique

The Population of Mango farmers in the county was estimated at 13,454. Since the population is large (above 10,000), the following formula was adopted to calculate the sample size of farmers.

$$n = \frac{N}{[1 + Ne^2]}$$

A sample size of 447 mango farmers/ growers was established.

A stratified random sampling technique was used to get a sample size of traders and exporters since the target population was not homogeneous. The researcher therefore subdivided it into groups or strata in order to obtain a representative sample. From the above population of thirteen thousand five hundred and seventy four, 10% from both traders and exporters, giving each item in the population an equal probability of being selected. This generated a sample size of 461 respondents from whom the study sought information. Table 1.2 below gives summary of the sample size.

*Table 1.2 Sample Size (MOA, 2010)*

Sections	Population (Frequency) (N)	Sample Ratio	Sample (n)
Traders	120	0.1	12
Exporter	12	0.1	2
Farmers	13,442		447
<b>Total</b>			<b>461</b>

The questionnaires were then distributed through the ministry's division headquarters. Out of the target population, 447 questionnaires were administered to 447 farmers, 12 traders



and 2 exporters. Out of the 461 questionnaires distributed, 296 questionnaires were returned with 283 coming from farmers, 12 from traders and one from an exporter.

### Measures and Covariates

Primary data (mainly information on factors influencing adoption) were collected from the respondents through questionnaires. Structured questionnaire with both open and close ended questions were the key instruments used in collecting primary data from the respondents. The questionnaire was pre-tested before being administered to the respondents.

Quantitative data obtained from the field was coded using the SPSS and analyzed using descriptive and inferential techniques. Descriptive techniques were adopted using frequencies to show the tendency of occurrence between study variables. Inferential techniques like regressions were used so as to establish the relationship between variables in the study and inferences made.

A logit analysis was used to determine whether adoption of innovation is influenced by entrepreneurial, financial, marketing and training skills. Logit regression is used to determine the probability of occurrence of an event with the presence of its determinants by fitting the data on a probability curve. A Logit model was found suitable by Nchinda and Mendi, (2008) who used the same approach to investigate the factors influencing adoption of milk technology in Cameroon.

The Logit model was conducted by transforming 'innovation adoption' variable into binary (1 = adopted innovation, 0 = has not adopted innovation). Logit regression was preferred as it is not affected by other factors such as serial autocorrelations and would, thus, have a better presentation of the prediction. Innovation (I) was the dependent variable while marketing skills, respectively were the independent variables. These variables were measured based on the respondents' agreement or disagreement with the variable indicators whereby agreement was accorded value 1 and disagreement value 0. The analysis was done on four independent variables as shown below:

$$P(Y = 1 | X_1, \dots, X_p) = \frac{e^{\alpha + \sum_{j=1}^p \beta_j X_j}}{1 + e^{\alpha + \sum_{j=1}^p \beta_j X_j}}$$

Marketing skills ( $X_1$ ): (0=lack marketing skills, 1= have marketing skills);  
I and X variables were converted into standard scores:  $Z_y, Z_1, Z_2, \dots, Z_n$ .

### Results

The study found out that majority 63.3% of growers indicated that they were trained on marketing, 36.7% indicated that they were not trained. Out of the trained growers, 49% adopted innovations and 51% did not adopt. Out of the growers who were not trained, 6.7% adopted innovations and 93.3% did not adopt. The study also found out that 84.6% of traders/exporters were trained on marketing skills while 15.4% were untrained. Out of the trained traders/exporters, 73% adopted marketing innovations

Growers had low (8%) marketing adoption rate for the trained and 1% for the untrained. Further, it was established that 21% of the growers had price knowledge, while 79% didn't. Out of those who had price knowledge, 17% adopted innovations. It is clear that growers had low (21%) knowledge on price and therefore low (17%) innovation adoption for those with price knowledge and 2.2% adoption for those with no price knowledge. On the issue of promotion, only 5.6% of the growers had promotion knowledge. This shows that growers had low (5.6%) knowledge on promotion and therefore low adoption rate. On the other hand, the number of growers without place knowledge but adopted innovation was

8.9%. Finally with regard to negotiation as an indicator of marketing skill, 24% of growers had negotiation knowledge. This clearly shows that growers had low (24.8%) knowledge on negotiation and thus low (39%) adoption.

On the other hand, the study established that 92.3% of traders/exporters had price knowledge in the market and 80% of them had adopted innovations. This shows that traders/exporters had high interest on price and thus high knowledge on price and high adoption rate of price innovation. This can be compared to growers whose price knowledge was 20.8% and the adoption rate of 17% for those who had perfect knowledge.

The study also found out that 84.6% of traders/exporters had product knowledge while 15.4% didn't. The results further reveal that 63.6% of traders/exporters with product knowledge had adopted innovation. The analysis shows traders/exporters had high knowledge of the product and thus high adoption rate of (63.6%). As compared to growers who had an equivalent high (83.7%) knowledge, and high product adoption rate of 65% for those who had perfect knowledge and 2.2% for those had no knowledge.

The study also examined promotion as an indicator of marketing skills as far as traders/exporters are concerned. It was established that the percent of traders/exporters with promotion knowledge was 69.2% and the number without promotion knowledge was 30.8%. The percent of traders/exporter with promotion knowledge and adopted innovations was 66.7%, while the percent of traders/exporters with promotion knowledge but did not adopt the innovation was 33.3%. Similarly, the percent of traders/exporters without promotion knowledge but adopted innovation was 25%.

## Logit Regression Results

Table 1.3: Logit Model Coefficients

		B	S.E.	Wald	Df	Sig.	Exp(B)
Model 1: Growers	Marketing Skills	-.335	.662	.255	1	.613	.716
	Constant	-1.148	.776	2.187	1	.139	.317
Model 2: Traders/ Exporters	Marketing Skills	-41.875	45720	0	1	0.999	0
	Constant	42.365	57340	0	1	0.999	2.51E+18

### a. Variable(s) entered on step1: Marketing Skills

That study shows that marketing skills would negate adoption of innovation as it has a coefficient of -0.335. The Logit model shows that, when other factors are held constant, marketing skills would decrease adoption of innovation by 41.875.

## Chi-Square Results

Chi-square test was used to determine whether an association (or relationship) between independent and dependent variables in the sample is likely to reflect a real association between these variables in the population. The null and alternative hypotheses for the chi-square test were:

### Hypothesis One

H<sub>0</sub>: Marketing skill is not associated with innovation, and

H<sub>1</sub>: Marketing skills is associated with innovation.

Table 1.4 Chi-Square – Innovation and Independent Variables

			Value	Degrees of Freedom (df)	Asymp. Sig. (2-sided)
Model 1	Marketing Skills	Pearson Chi-Square	9.418c	10	.493
		Likelihood Ratio	10.469	10	.400
		Linear-by-Linear Association	.238	1	.626
Model	Marketing	Pearson Chi-Square	9.620g	4	.047

2	Skills	Likelihood Ratio	12.860	4	.012
		Linear-by-Linear Association	3.017	1	.082

Chi square results on growers shows that neither linear association nor a significant chi-square distribution was established between marketing skills and adoption of innovations as the p-values established were 0.626 and 0.493 respectively. The null hypothesis is thus not rejected and the study fails to accept the alternative hypothesis. On traders/ exporters, a significant chi-square relationship was established with innovation given a chi-square value of 9.620 at  $p=0.047$ . However, insignificant linear relationship was established as the p-value established was 0.082 ( $P>0.05$ ). These show that, on overall, along the traders-buyers inter-linkage along the mango value chain, innovation is only influenced by marketing skills and training level of the actors.

## Discussion

The study sought to compare the indicators of marketing skills for traders/exporters with growers. It was observed that the number of traders/exporters with price knowledge was 92.3% and those without price knowledge was 23.1% out of the 13 traders/exporters. The number of traders/exporter with price knowledge and had adopted innovations was 80%. While the number of traders/exporters with price knowledge and had not adopted innovation was 20%. Similarly, the number of traders/exporters without price knowledge but had adopted innovation was 66.7%, while the number of traders/exporters without price knowledge and had not adopted innovations was 33.3%. This shows that traders/exporters had high interest on price and thus high (92.3%) knowledge on price and high adoption rate of price innovation. This can be compared to growers whose price knowledge was 20.8% and the adoption rate of 17% for those who had perfect knowledge and 2.2% for those who had no knowledge. Traders/exporter price knowledge was 92.3% and price adoption rate was 80% for those who had perfect knowledge and 66.7% who had no knowledge.

With regards to product, when examining traders/exporters, (84.6%) had product knowledge and the number without product knowledge was 15.4% out of the 13 traders/exporters. The results further reveal that the number of traders/exporters with product knowledge and had adopted innovation was 63.6%, while the number of traders/exporters with product knowledge and had not adopted innovation was 36.4%. Similarly, the number of traders/exporters without product knowledge but had adopted innovation was 50%, while the number of traders/exporters without product knowledge and had not adopted innovation was 50%. The analysis, therefore, shows traders/exporters had high 84.6% knowledge of the product and thus high adoption rate of 63.6% for those who had perfect knowledge and 50% adoption rate for those who did not have knowledge. As compared to growers who had an equivalent high 83.7% knowledge, and high product adoption rate of 65% for those who had perfect knowledge and 2.2% for those had no knowledge.

The study also examined promotion as an indicator of marketing skills as far as traders/exporters are concerned. It was established that the number of traders/exporters with promotion knowledge was 69.2% and the number without promotion knowledge was 30.8% of the 13 respondents. The number of traders/exporter with promotion knowledge and adopted innovations was 66.7%, while the number of traders/exporters with promotion knowledge but did not adopt the innovation was 33.3%. Similarly, the number of traders/exporters without promotion knowledge but adopted innovation was 25%. While the number of traders/exporters without promotion knowledge and had not adopted innovation was 75%. The analysis, thus shows that traders/exporters had high (69.2%) knowledge on promotion and high adoption rate of 66.7% for those who had perfect knowledge and 25% adoption for those who had no knowledge, as compared to growers whose promotion knowledge was 5.6% and adoption rate 25% for those who had perfect knowledge and 1.5% for those who had no knowledge.

Regarding place as an indicator of marketing skills, the number of traders/exporters with place knowledge was 84.6% and the number without place knowledge was 15.4%. Out of the number of traders/exporters with place knowledge 82% adopted innovation. While those with place knowledge but had not adopted innovation was 18%. Similarly, the number of traders/exporters without place knowledge but had adopted innovation was 50%, while those without place knowledge and did not adopt innovation was 50%. Thus, majority (84.6%) of traders/exporters had place knowledge and their adoption rate was as high as (82%) for those who had perfect knowledge and 50% for those who did not have knowledge, as compared to the growers whose place knowledge was as low as (20.5%) and low adoption rate of (8.6%) for those who had perfect knowledge and 8.9% for those who had no knowledge.

Finally, the study examined negotiation as an indicator of marketing skills and noted that the number of traders/exporter with negotiation knowledge were 77% and those without negotiation knowledge were 33%. The traders/exporters with negotiation knowledge but did not adopt innovation were 80%, while those with negotiation knowledge but did not adopt innovations were 20%. Similarly, those traders/exporters without negotiation knowledge but did adopt innovation were 33.3%. While those traders/exporters without negotiation knowledge but did not adopt innovation were 66.7%. Majority, therefore, (77%) of traders/exporters had high negotiation knowledge of 80% for those who had perfect knowledge and 33.3% who did not have knowledge. On the other hand, growers had low (24.8%) knowledge on negotiation and low (36.8%) adoption rate for those who had perfect knowledge and 2.8% for those who had no knowledge. The above analysis shows growers had less knowledge on marketing skills and, thus, less adoption than traders/exporters. According to Dorfman (1987), there is a positive role of market skills in determining the level of innovative activity and these same arguments apply also to the choice to use new innovations. This could therefore be the reason why traders/exporters reported a high rate of adoption of innovations than the growers.

## **Conclusion**

The study concludes that growers had less knowledge on marketing skills and thus less adoption than traders/exporter. This shows that value chain members have imperfect marketing skills. Traders/exporters are more knowledgeable than growers on marketing skills. Marketing skills influence buying and selling. That is why 39% of the produce goes to waste. If value chain members had excellent marketing skills, nothing could be going to waste. So, marketing skills influence innovation adoption.

The study recommends intensification of training on market skills on value chain members and stakeholders, either through NGOs and private sector on the areas of price, place, promotion and negotiation so that growers could be better equipped in marketing skills.

There is also need for business incubation programs (KTDA model) and; revise training curriculum to cater for marketing and processing.

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# PROCESS OF DEVELOPMENT OF MODEL BASED ON LINEAR PROGRAMMING TO SOLVE RESOURCE ALLOCATION TASKS WITH EMPHASIS ON FINANCIAL ASPECTS

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## Abstract

Article deals with the topic of Linear Programming application on tasks of allocating limited resources in production companies. These restrictions come from both inside of company and market conditions. There is usually limited amount of resource available on market. Moreover the purchase price is also an important decisive factor when estimating the optimal amount of resource needed. The objective of article is to present the process of development of two models based on linear programming which describe situations production companies have to face in terms of resource allocation. We chose to look into this problem from financial point of view. Therefore most important parameters in models are of financial nature. We look into resource allocation in terms of possible costs and revenues. These two models describe the two possible optimization problems – the minimizing tasks and the maximizing tasks. Examples of such tasks from managerial practice are also included.

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**Keywords:** Linear Programming, resource allocation, costs, revenues

## Introduction:

Nowadays the global economic crisis deteriorates the business environment and makes it more difficult for companies to manage. Therefore they must learn to adapt and make an effort to secure an effective and promising development in these constantly changing conditions. Managers should pay more attention to methods, which would help their company not only to survive but also to best fulfill the goals.

This article focuses on the Linear Programming methods. The aim of this paper is to explore the process of development of a model based on linear programming. As an example we chose a task of resource allocation. We chose to look into this problem from financial point of view. Therefore most important parameters in models are of financial nature. We look into resource allocation in terms of possible costs and revenues. These two models describe the two possible optimization problems – the minimizing tasks and the maximizing tasks.

## The structure of Linear Programming tasks:

One of the characteristics of optimizing tasks is the large amount of solutions matching the basic task conditions. The selection of a particular solution as the best to a problem depends on the overall objective that is implied in the statement of the problem. A solution which satisfies both the conditions of the problem and the give objective is considered to be the optimal one (Zemánková, Komorníková, 2008; Gass, 2010).

The analysis of any given optimizing problem involves the transformation of necessary data into the set of equations. Then this set of these equations is solved and the optimal solution is determinate. Similarly according to Gass (2010) the complete mathematical

statement of a Linear Programming task includes the set of linear equations which represent the conditions of the problem and a linear function which expresses the objective of the problem. In managerial practice, Linear Programming deals with nonnegative solutions to determinate system of linear equations. Due to this limitation, negative solutions are eliminated from the decision-making process. The other possibility is to incorporate this necessary limitation into the set of conditions.

Consequently we can summarize the following three components of the linear model:

- the objective function (the function which represents given problem and whose extreme has to be found);
- the conditions (the limitations of the task);
- the nonnegative condition for the resulting values (Sákal, Jerz, 2003; Borrelli, Bemporad, Morari, 2003).

According to Ivaničová, Brezina and Pekár (2002) and Liu et al. (2007) the mathematical statement of the Linear Programming task can be formulated as following:

$$\begin{array}{ll} \text{objective function} & \min f(\mathbf{X}) = f(x_1, x_2, \dots, x_n) \\ \text{conditions} & g_1(x_1, x_2, \dots, x_n) \geq c_1 \\ & g_2(x_1, x_2, \dots, x_n) \geq c_2 \\ & \dots \\ & g_n(x_1, x_2, \dots, x_n) \geq c_n \end{array}$$

### The process of the first model development – maximizing tasks

Development of any type of model is a challenging process. We present the process of development of two models. These models use Linear Programming as a foundation and therefore are rather simple in their nature. This aspect is one of the main advantages of any Linear Programming model. Such tasks are easily solved and do not require any expensive application programs (software). To solve simple tasks it is even sufficient to use the Solver application in Microsoft Excel.

The process of development of models we built consists of three steps for each model. Firstly we look into task of maximizing the amount of one factor as its main objective. In practice it could be a task of maximizing amount of substance or material used in product; maximizing the level of active ingredient in final substance and so on. In our case the objective of Linear Programming task is to maximize the revenues company gains from selling its products. We omit the fact that it may not be possible for company to sell all of the products it produces. Therefore the only restriction comes from the maximal amount of material it has available. These factor and processes can be displayed in table (Table 1).

Table 1 Parameters of the first model

factor \ process	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	...	A <sub>m</sub>	maximal available amount
S <sub>1</sub>	S <sub>1A1</sub>	S <sub>1A2</sub>	S <sub>1A3</sub>	...	S <sub>1Am</sub>	S <sub>1max</sub>
S <sub>2</sub>	S <sub>2A1</sub>	S <sub>2A2</sub>	S <sub>2A3</sub>	·	S <sub>2Am</sub>	S <sub>2max</sub>
S <sub>3</sub>	S <sub>3A1</sub>	S <sub>3A2</sub>	S <sub>3A3</sub>	·	S <sub>3Am</sub>	S <sub>3max</sub>
·	·	·	·	·	·	·
·	·	·	·	·	·	·
·	·	·	·	·	·	·
S <sub>n</sub>	S <sub>nA1</sub>	S <sub>nA2</sub>	S <sub>nA3</sub>	·	S <sub>nAm</sub>	S <sub>n max</sub>
criterion	P <sub>A1</sub>	P <sub>A2</sub>	P <sub>A3</sub>	...	P <sub>Am</sub>	max.

Source: Own elaboration, 2013.

The goal is to find optimal values of  $x_i$  – amount of A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, ... A<sub>m</sub>, where  $x_i \in \mathbb{N}$  and  $i \in 1, 2, 3, \dots, m$ , whereas each  $x_i$  consists of various combinations of substances S<sub>r</sub>, where  $r \in 1, 2, 3, \dots, n$ . Therefore the first step is to define the objective function and conditions of the task which represent the restrictions due to limited availability of each substance. The



objective function is to maximize revenues from selling the products. For demonstration we use an example of a situation when all of produced products are sold. Parameters of the model go as following:

$$\begin{aligned} \max z_x &= P_{A1} \cdot x_1 + P_{A2} \cdot x_2 + P_{A3} \cdot x_3 + \dots + P_{Am} \cdot x_m \\ S_{1A1} \cdot x_1 + S_{1A2} \cdot x_2 + S_{1A3} \cdot x_3 + \dots + S_{1Am} \cdot x_m &\leq S_{1max} \\ S_{2A1} \cdot x_1 + S_{2A2} \cdot x_2 + S_{2A3} \cdot x_3 + \dots + S_{2Am} \cdot x_m &\leq S_{2max} \\ S_{3A1} \cdot x_1 + S_{3A2} \cdot x_2 + S_{3A3} \cdot x_3 + \dots + S_{3Am} \cdot x_m &\leq S_{3max} \\ \dots \\ S_{nA1} \cdot x_1 + S_{nA2} \cdot x_2 + S_{nA3} \cdot x_3 + \dots + S_{nAm} \cdot x_m &\leq S_{nmax} \end{aligned}$$

The second step is to edit given parameters as following:

$$\begin{aligned} \max z_x &= \sum P_i \cdot x_i, \text{ where } i \in 1, 2, 3, \dots, m \\ \sum S_{1i} \cdot x_i &\leq S_{1max} \\ \sum S_{2i} \cdot x_i &\leq S_{2max} \\ \sum S_{3i} \cdot x_i &\leq S_{1max} \\ \dots \\ \sum S_{ni} \cdot x_i &\leq S_{nmax} \end{aligned}$$

The third and final step of model development goes as following:

$$\begin{aligned} \max z_x &= \sum P_i \cdot x_i, \text{ where } i \in 1, 2, 3, \dots, m \\ \sum \sum S_{ri} \cdot x_i &\leq S_{rmax}, \text{ where } r \in 1, 2, 3, \dots, n \end{aligned}$$

This way a simple model of Linear Programming task can be built. It can be used to describe any given Linear Programming task with objective function that needs to be maximized.

**The process of the second model development – minimizing tasks**

The second Linear Programming model we develop is focused on solving tasks whose ultimate goal is to minimize the target value. From financial point of view it would be the best to think of achieving the minimal value of costs during production as the goal of solving the task. We can find many examples of such tasks in managerial practice. Production companies always struggle to minimize their production cost. One of the other examples involves creating an optimal production program of company with emphasis on using the best combination of production factors based on their purchase prices.

Table 2 shows the parameters of one type of minimizing Linear Programming tasks. The ultimate goal is to minimize the sum of purchase prices of consumed production factors. However company needs to use a certain minimal amount of each material in order to produce the final product.

*Table 2 Parameters of the second model*

process \ factor	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	...	I <sub>m</sub>	criterion
F <sub>1</sub>	a <sub>F1I1</sub>	a <sub>F1I2</sub>	a <sub>F1I3</sub>	...	a <sub>F1Im</sub>	P <sub>F1</sub>
F <sub>2</sub>	a <sub>F2I1</sub>	a <sub>F2I2</sub>	a <sub>F2I3</sub>	.	a <sub>F2Im</sub>	P <sub>F2</sub>
F <sub>3</sub>	a <sub>F3I1</sub>	a <sub>F3I2</sub>	a <sub>F3I3</sub>	.	a <sub>F3Im</sub>	P <sub>F3</sub>
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
F <sub>n</sub>	a <sub>FnI1</sub>	a <sub>FnI2</sub>	a <sub>FnI3</sub>	.	a <sub>FnIm</sub>	P <sub>Fn</sub>
minimal amount necessary	I <sub>1min</sub>	I <sub>2min</sub>	I <sub>3min</sub>	...	I <sub>mV</sub>	min

*Source: Own elaboration, 2013.*

The goal is to find optimal values of y<sub>j</sub> – amount of F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>,...F<sub>n</sub>, where y<sub>j</sub> ∈ N and j ∈ 1, 2, 3,...n. The first step is to define the objective function and conditions of model. In this particular case they are formulated as following:

$$\min z_y = P_{F1} \cdot y_1 + P_{F2} \cdot y_2 + P_{F3} \cdot y_3 + \dots + P_{Fn} \cdot y_n$$

$$a_{F1I1} \cdot y_1 + a_{F2I1} \cdot y_2 + a_{F3I1} \cdot y_3 + \dots + a_{FnI1} \cdot y_n \geq I_{1min}$$

$$a_{F1I2} \cdot y_1 + a_{F2I2} \cdot y_2 + a_{F3I2} \cdot y_3 + \dots + a_{FnI2} \cdot y_n \geq I_{2min}$$

$$a_{F1I3} \cdot y_1 + a_{F2I3} \cdot y_2 + a_{F3I3} \cdot y_3 + \dots + a_{FnI3} \cdot y_n \geq I_{3min}$$

...

$$a_{F1Im} \cdot y_1 + a_{F2Im} \cdot y_2 + a_{F3Im} \cdot y_3 + \dots + a_{FnIm} \cdot y_n \geq I_{m \min}$$

The second step is to edit given parameters as following:

$$\min z_y = \sum P_{Fj} \cdot y_j, \text{ where } j \in 1, 2, 3, \dots, n$$

$$\sum a_{FjI1} \cdot y_j \geq I_{1min}$$

$$\sum a_{FjI2} \cdot y_j \geq I_{2min}$$

$$\sum a_{FjI3} \cdot y_j \geq I_{3min}$$

...

$$\sum a_{FjIm} \cdot y_j \geq I_{m \min}$$

The third and final step of development of this model goes as following:

$$\min z_y = \sum P_{Fj} \cdot y_j, \text{ where } j \in 1, 2, 3, \dots, n$$

$$\sum \sum a_{FjIt} \cdot y_j \geq I_{t \max}, \text{ where } t \in 1, 2, 3, \dots, m.$$

### Conclusion:

The aim of the article was to describe the process of Linear Programming model development using two examples. We focused on resource allocation tasks with emphasis on the financial aspects of these tasks. Therefore the objective function representing the ultimate goal was either maximization of revenues or minimization of costs.

We tried to set the models as general as possible and that way make them applicable to any given Linear Programming task. In practice it is possible to describe the majority of problems as Linear Programming tasks and resolve them as such. However the models we prepared do not serve to solve these tasks. They only help to better understand all facets of the problem and enable looking at it from different angles using descriptive mathematic methods. Therefore we can state that these models can serve as a foundation for solving Linear Programming tasks using any of the methods or thorough available application program (software).

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# ENTREPRENEURSHIP IN LATIN AMERICA DURING THE 21st CENTURY

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## Abstract

This paper aims to provide an brief overview of Entrepreneurship during the last decade in three of the most representative economies of Latin America. With this objective, the relationship of different variables that pertain to both entrepreneurship and the elements that, according to the literature, are individual-level determinants of it (such as attitude, social norms and the perceived ability to develop individual action itself) are explored over time. The period analyzed is 2001-2012 for the cases of Brazil, Argentina and Mexico with indicators from the Global Entrepreneurship Monitor (GEM).

The data show that for all selected countries, the perceived desirability, specifically the dimension of the social value given to the entrepreneurial activity, is positively and significantly associated with both the initiation of new business and the intent to undertake them. Looking at each country in particular, this important association persisted with at least one dimension of entrepreneurship (either the activity or the intention). The variable on perceived feasibility for conducting business is more strongly associated with entrepreneurship in the case of Brazil, in contrast to the cases of Argentina and Mexico where it, in general, does not reflect statistical significance.

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**Keywords:** Entrepreneurship, Latin America

## Introduction:

Entrepreneurship is now a topic of undisputed importance since it allows creating new workplaces and affects the economic development of a country. There are three fundamental issues that justify and instigate the study of this subject: first, entrepreneurship is an important mechanism by which society converts technical information on products and services; second, it also represents a pathway through which inefficiencies in the economic sphere are solved on a specific time and space. Finally, entrepreneurship is, in the words of Schumpeter, the engine of the change process in capitalist societies (Shane and Venkataraman, 2000, p. 219). From the above, it is relevant to explore those elements that are significantly related to entrepreneurial behavior of individuals as defined in different theoretical approaches. Thus, the objective of this work is to determine which aspects of the individual's perception relate significantly to the magnitude of entrepreneurship and entrepreneurial intention in Latin America.

To answer this question, this study uses indicators developed by the Global Entrepreneurship Monitor (GEM) for the period 2001-2012 for the three major economies in the region: Brazil, Argentina and México.

The text is structured as follows: the first part presents the theoretical approaches that guide and support the empirical work. Subsequently, the data used are listed as well as the methodology used. In a third section, the major findings of this paper are identified and

discussed, both for the sample of selected countries and for each one. Finally we present the conclusions.

### Theoretical approaches:

The entrepreneurship literature has addressed the issue from different perspectives. However, one of the most important aspects is that which seeks to understand the nature of the factors that determine entrepreneurial intention in individuals. From this approach, works such as Shapero (1982), Ajzen (1991), Krueger and Brazeal (1994) and more recently, Liñán (2004) stand out.

Shapero (1982) points out that the usual behavior of the individual is modified from "precipitating" events. Thus, the entrepreneurial event occurrence is explained by the conjunction of two factors: when one of these events interrupts the agent's habitual course and it is credible; that is, if the person believes that it is desirable and feasible to undertake a business (Krueger and Brazeal, 1994, p.93).

Subsequently, scholars resume Ajzen's (1991) Theory of Planned Behavior to account for entrepreneurial intention. This approach indicates that the attitude toward the act, the social norms and capacity of individuals towards certain attitudes explain their intention of realization.

The works of Krueger and Brazeal (1994) and Liñán (2004) have integrated the ideas of the two previous models. They note that the credibility referred to by Shapero (1982), explained by the desirability and feasibility of entrepreneurial event, is consistent with the factors mentioned by Ajzen (1991): attitudes or disposition, social norms or assessment and the capacity or perceived behavioral control (Veciana, Aponte and Urbano, 2005, p. 167). In addition, Liñán (2004) adds to his work a new contextual element, noting that entrepreneurial knowledge affects both the desirability and the feasibility.

*Table No. 1 Equivalence between the models according to Krueger and Brazeal*

<i>Shapero model</i>	<i>Ajzen model</i>
Perceived venture desirability	Attitudes towards the behavior
	Subjective norms
Perceived venture feasibility	Perceived behavioral control

*Source: From Veciana, et al., 2005, p. 167.*

Thus, this study adopts the elements highlighted by the model put forward by Krueger and Brazeal (1994) and observes their trajectory with respect to entrepreneurship. To this end, we use indicators from GEM for each of the countries listed above during the study period.

### Data and methodology

To study the conditions of entrepreneurship in Brazil, Argentina and Mexico, the indicators constructed from the GEM Adult Population Survey (APS) during the period 2001 – 2012 that correspond to the variables identified in the model of Krueger and Brazeal were identified.

Then, it was examined whether a linear association exists between them and the indicators selected to measure entrepreneurship in this work –Total Entrepreneurial Activity (TAE) and the Total Entrepreneurial Intention (TIE) – by calculating the Spearman correlation coefficients (See Table No. 2).

Table No. 2 Variables and indicators for analysis

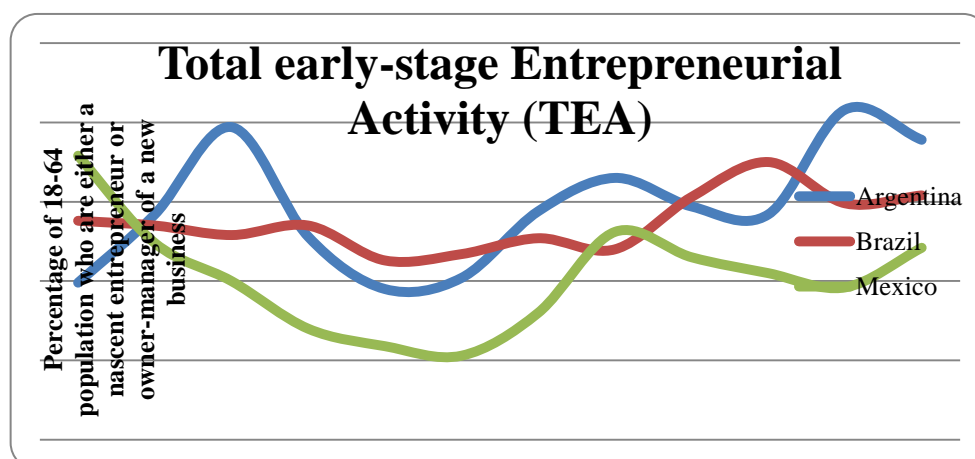
Variable	Dimensión	Indicador
Entrepreneurship	Entrepreneurial Activity	Total Entrepreneurial Activity (TEA). Percentage of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business.
Entrepreneurship	Entrepreneurial intention	Total Entrepreneurial Intention. Percentage of 18-64 population (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years.
Perceived desirability	Attitude or disposition towards behavior	Improvement-Driven Opportunity Entrepreneurial Activity. Percentage of those involved in TEA who (i) claim to be driven by opportunity as opposed to finding no other option for work; and (ii) who indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income. Necessity-Driven Entrepreneurial Activity. Percentage of those involved in TEA who are involved in entrepreneurship because they had no other option for work.
	Norms or social value of the behavior	Entrepreneurship as Desirable Career Choice. Percentage of 18-64 population who agree with the statement that in their country, most people consider starting a business as a desirable career choice. High Status Successful Entrepreneurship. Percentage of 18-64 population who agree with the statement that in their country, successful entrepreneurs receive high status.
Perceived feasibility	Behavioral control or perceived capacity	Fear of failure. Percentage of 18-64 population with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business.
		Perceived capacities. Percentage of 18-64 population who believe to have the required skills and knowledge to start a business.
		Perceived opportunities. Percentage of 18-64 who see good opportunities to start a firm in the area where they live.

Source: Based on indicators of Global Entrepreneurship Monitor (GEM).

### Entrepreneurship in the three largest economies in Latin America:

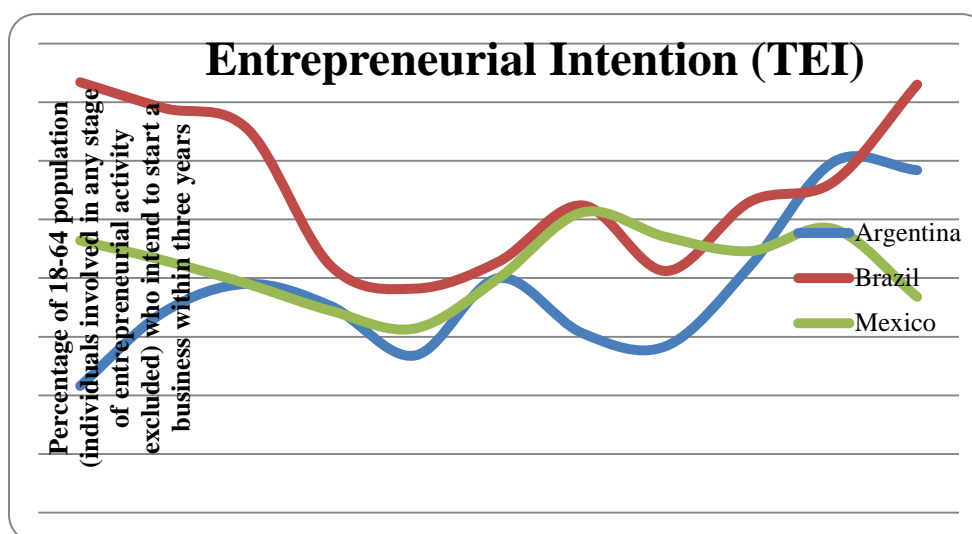
The average Total Entrepreneurial Activity (TEA) of the selected economies -Argentina, Brazil and Mexico - during the period 2001-2012 is 13.34%. It is noteworthy that of the three countries, only Mexico is below the average for the period studied (10.85%), while both Argentina and Brazil, exceed it with 13.70% and 14.65% respectively (See Figure 1).

Figure 1



Source: Based on data from Global Entrepreneurship Monitor (GEM).

Figure 2



Source: Based on data from Global Entrepreneurship Monitor (GEM).

The Total Entrepreneurial Intention (TEI), during the period observed, comes to an average of 22.68%. While Brazil continues being the largest proportion of the population that intends to start a business in a future no more than three years ahead, with 27.58%, this time, in addition to Mexico (20.94%), Argentina is also below average with 18.90% (See Figure 2).

It can be observed in all cases, in the year 2005, a decrease in the proportion of owners of new business. This can be explained by the economic situation in the international and regional context. According to the Economic Commission for Latin America and the Caribbean (ECLAC), in a global framework of economic slowdown, the region in question experienced an expansion. The economic growth rates influenced the decrease in the unemployment rate (more than one percentage point). However, it is worth noting that this employment recovery process that had been going on since 2003 is based more on wage employment (ECLAC, 2006, pp. 14-16). Thus, we can expect that this decline in entrepreneurial activity has to do with the proliferation of jobs in the formal sector that solved the labor demands of the population.

As for the relationship of entrepreneurship with the other variables mentioned above, based on the theoretical approaches, the following observations can be made (See Table 3):

- *Perceived desirability.*

In the case of all countries, it can be observed that the indicators used to measure disposition towards entrepreneurial behavior are not linearly related (statistically significant) either with entrepreneurial activity or with the intention to carry it out. However, the social value of entrepreneurship seems to be importantly linked to both the TEA as TEI, reaching correlation coefficients of 0.581 and 0.610 respectively (both statistically significant at 1%).

That is, the socially shared idea that starting a business is a desirable option as well as the high value given by the community to the individual entrepreneur are positively and significantly related to both the number of people who undertook a business and to those intending to do so within three years maximum.

Looking at the results by country, these show that in Brazil only the value that society places on business entrepreneurship as a desirable career choice exhibits an important statistically significant linear relationship with entrepreneurial intentions (0.849), but not with others indicators.

Argentina, meanwhile, reflects a high association between perceived desirability and entrepreneurial activity performed. All of indicators belonging to perceived desirability show

a strong linear association with the TEA. Social value of the behavior (both starting a business as an employment option and the status of the entrepreneur) exhibit correlation coefficients 0.644 and 0.709, respectively. Entrepreneurship for reasons of improvement is importantly related to the proportion of new businesses (0.722).

Mexico, although it has some high correlation coefficients, does not reflect statistically significant associations between the indicators for the variable "perceived desirability" and those for both entrepreneurship and the intent of it.

- *Perceived feasibility.*

For all countries, the indicators that showed statistically significant relationships with the TEA are those related to the perception of both opportunity and own capabilities to start a business, with coefficients of 0.315 and 0.317 respectively. Yet no feasibility indicator exhibited a significant relationship to entrepreneurial intention.

In the case of Brazil, the proportion of entrepreneurial activity deterred by fear of failure reflects a negative relationship of considerable magnitude and statistical significance (-0.5329) to the TEA. Also, perceived capabilities for people to start a business are positively and significantly related to the proportion of owners of businesses up to 42 months old (0.594). In the case of entrepreneurial intention, none of the indicators for the perceived feasibility showed a statistically significant linear association to it.

Argentina on the other hand, only exhibits an important positive relationship (and statistically significant) between the TEA and the percentage of population that perceives opportunities in their environment to start a business in the area where they reside (0.726).

In the case of Mexico, none of the indicators for perceived feasibility showed a statistically significant linear association with either the TEA or TEI.

Table 3. Correlation Coefficients

Variable	Dimension	Indicator	Entrepreneurship							
			Set of the 3 countries		Brazil		Argentina		Mexico	
			TEA	TEI	TEA	TEI	TEA	TEI	TEA	TEI
Perceived desirability	Attitude or behavior	Improvement-Driven Opportunity Entrepreneurial Activity.	0.2992	0.3499	0.3234	-0.0479	0.7229 **	0.4338	0.6088	0.8407 **
		Necessity-Driven Entrepreneurial Activity.	0.284	0.0526	0.2632	-0.3144	-0.6667 **	-0.1321	0.0727	-0.257
	Standards or social value of the behavior	Entrepreneurship as Desirable Career Choice.	0.581 ***	0.6105 ***	0.5098	0.8497 ***	0.6444 **	0.5106	0.7143	0.8286 **
		High Status Successful Entrepreneurship.	0.4213 **	0.3556 *	-0.1885	-0.3647	0.7095 **	0.3731	0.0857	0.3143
Perceived Feasibility	Perceived behavioral control or ability	Fear of failure.	-0.2128	-0.1409	-0.5329 *	-0.6115 **	-0.4947	-0.0461	-0.6108	-0.3929
		Perceived capabilities.	0.3171 *	-0.1843	0.5944 **	-0.0778	0.431	0.2871	0.2755	0.3424
		Perceived opportunities.	0.3159 *	-0.0016	0.0967	0.2831	0.7269 ***	0.2759	0.4762	0.5714

Source: Based on data from Global Entrepreneurship Monitor (GEM).

\*\*\*  $P < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.10$



**Conclusion:**

This study explored the relationship between variables that traditionally explain entrepreneurial behavior and intention in the three most representative economies in Latin America during the last decade, Brazil, Argentina and Mexico.

In this regard it is noted that at the aggregate level, the perception of individuals about the standards prevailing in their environment and the social assessment that it makes on entrepreneurial activity, are the factors most strongly associated with the level of entrepreneurship and entrepreneurial intention.

Moreover, perceived feasibility showed no association to entrepreneurial intention, although it did for entrepreneurial activity. Such incidence reported differences in regards to the relevant dimension as well as to the magnitude of importance. While in Brazil the perception of citizens in their ability to start a business shows an important link to the magnitude of new businesses generated, in the case of Argentina the perception of the existence of opportunities in the environment is the factor more strongly associated with the ratio of the TEA.

This allows us to think that the social value of entrepreneurship is one of the most important aspects to understand the magnitude of entrepreneurial activity, while both individual perception of the capacity to start a business and the opportunities that the person sees in his own environment for the same purpose are matters associated with less intensity to the studied phenomenon.

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# DEVELOPMENT OF ECONOMIC SYSTEMS – IMPULSES AND ALTERNATIVES<sup>51</sup>

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## Abstract

At the end of the twentieth century, it comes to an overlap of several important, qualitatively new processes in the global economy. Processes of globalization, integration and interdependence. The nature of advanced economies changes fundamentally towards knowledge-based economy as the basis of a knowledge society. Global transformation conditioned by technological, economic, social and institutional change is taking place in all the real functioning economic systems. Determinants of their socio-economic arrangements are changing significantly, relativising different premises of functioning of economic systems considered essential and unchanging until recently. In pursuing the development of economic systems as crucial can be seen the element of their ability to adapt dynamically to the development of very complex and changing conditions. Adaptive capacity of systems is key to longterm growth. This article takes a look at some important impulses and changes going on in the real functioning economic systems since the end of the 1950s, that gradually led to a global crisis. It also introduces some opinions on how should an alternative to current economic system look like.

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**Keywords:** Globalization of the world economy, economic systems, knowledge economy, alternative economic systems

## Introduction

Socio-economic development of the real functioning economic systems since the second half of the 20th century was marked by positive and relatively stable growth. This was also reflected in the development of theories of general convergence of social systems to post-industrial society in the 1960s, reflecting a qualitative turn in the history of capitalism and socialism (among the best known we find: the theory of convergence of the capitalist and socialist economic system as a result of compliant processes taking place in both of them, Jan Tinbergen; Theory of industrial society by R. Aron, Rostow - the emergence of a new economic system exceeding those of capitalism and socialism, where technical and technological progress and social justice and welfare will be crucial; theory of welfare state by A.Pigou - connection of positive effects of the market economy with socio-economic objectives)<sup>52</sup>. Capitalism and socialism may seem to begin to converge to the same scientifically managed system. The driving force behind sustainable economic growth and labor productivity growth is gradually becoming technological progress and information technologies that bring significant changes to economic relations, whether it is a qualitatively new mode of production and distribution, or change in mutual communication of companies, consumers and governments. The basic model of economy in the information society has become a new model - the knowledge economy.

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<sup>51</sup>This article was elaborated in the framework of the research project VEGA no. 338 entitled "Contradictions of Human Capital Creation in the New Economy."

<sup>52</sup> For more information see: KORCEK, E.: *O teóriách „transformácie“ kapitalizmu*. Bratislava, 1972. ISBN 75-80-72.

The end of the twentieth century, however, brought to the development of economic systems several new impulses. There is a gradual transformation of the world economy into a single market economy, while improving the differentiation inside the system and increasing differences in different countries depending on their social and economic levels. Many theoretical works today say we are not talking about capitalism or socialism, that there is a single market economy, but with many variations and specific manifestations. Another major impetus is the growing importance of international institutions whose aim is to provide more efficient solutions to common economic and social problems in the process of globalization.

### **Shaping the Knowledge Society**

The advent of modern information technology has led to the formation of a new form of society - the information society, whose economy has received attribute knowledge (new). It is characterized by qualitatively new structure, evolving from the industrial economy under the influence of modern information technology, especially the Internet, which penetrates into all of its areas and sectors. The main inputs and outputs of the new economy are information and knowledge. Crucial role gains human with his specific characteristics - independence, inventiveness, imagination. The determining factor of production is knowledge, and as a result this leads to overcoming the alienation of human. The importance of an educated middle class is growing. This is an education society, learning society. Systems theory and cybernetics were considered to be the beginning of a new era of effective management of the society, replacing political antagonism, market and state. Material abundance and importance of education created a space for worship of values such as meaningfulness of life versus meaningfulness of mass consumption, no competition but solidarity, ethics, culture, quality of human coexistence.

Knowledge (new) economy and society builds on the results of the industrial era, while there is a universal conversion of all productive forces, factors and conditions of the society throughout its structure. It brings profound changes to the economic and social processes, changing the position of man in the production process and shaping their own lives. The key factors are becoming science and its wide-ranging application in symbiosis with versatile development of man and his creative powers. Information technology itself does not lead to productivity and progress, but the ability to transform information into knowledge, which translate into innovation. Growing in importance, unlike the previous class of capital owners, the so-called class of knowledge owners, which has the ability to form, to transform information into knowledge and apply them in different areas of society - in science, arts, production. They are able to create more knowledge and apply it universally.

This positive trend did not however last for a long time. Financial crises, which emerged gradually from the 1970s, first in less developed countries, reversed the society of post-materialist values. There was a leak from investments in people, in human capital. It was replaced by predatory financial capital - new financial investments, which have proved to be quickly and easily profitable. The 1970s are referred to as the end of the welfare state. The weakening of labor follows, the onset of labor-saving technologies - economic growth is not accompanied by growth in jobs. This is documented by data showing that GDP growth of 1% causes the growth of new jobs only by 0.3%.

### **System Changes in the New Millenium**

The changing balance of power between labor and capital leads to strong pressure on the labor. Equity is characterized by high mobility and becomes transnational. Labor is not so mobile. The role of trade unions weakens, structural unemployment is increasing, and becoming a long lasting phenomenon, the pressure to work part-time and to flexible work is extending. A group of the so called working poor is gradually increasing together with income polarization and consumption decreases. Representatives of neoliberalism argue that growth

of wealth on the part of capital will support economic growth and lead to consumption growth even of the lower levels of society. But this was not confirmed. Consumption credit has become a necessity in developed countries (the U.S.) to maintain consumption, which is a major component of GDP growth. Household borrowing compensates for long-term stagnation of wages.

The global financial and economic crisis, the causes of which have been discussed from different points of view, despite massive measures by national governments and supranational institutions is still not over. We often hear the opinion that the failure is due to the very economic and social system and not just an economic crisis, but the crisis of liberal democracy and democratic state. Liberal democracy was established together with the emergence of nation states, civil society, media, the rule of law and market economy. In the last 20 years, however, these conditions of existence of the liberal democracy have changed. According to M. Šikula (2009) global crisis that causation suggests that this is a qualitatively new, multidimensional crisis process, is also due to the unsustainability of prevailing neoliberal tradition coupled with market fundamentalism, based on absolutization of the invisible hand of the market. Postindustrial transformation acquired a dangerously contradictory form, challenged the concept that simultaneously with technological progress will automatically go hand in hand human culturing of socio-economic relations. The global crisis has revealed major systemic failure of capitalism in its current form.

Nation-states are gradually crushed by the globalization process. There is tearing of the originally very close link between democracy and the market economy as a result of the globalization process in the form of transnational corporations and financial institutions, governed by top managers. On the one hand, there is a global functioning market arising - more or less uncontrolled by anyone, and on the other hand a cumbersome national democracy. Globalized markets require flexibility and economic rationality, nation states are slow and the economic rationality is subject to the requirements of voters. The growing asymmetry between globalized capital that is able to enforce concessions to democracy from nation states better than the democratic nation states can regulate or enforce concessions to transnational capital. Rating agencies may sink the entire states where they do not comply. Transnational financial markets are not subject to almost any external constraints. Global financial markets require that nation states, which must address the specific realities and social problems, operate in accordance with the transnational context.

The form of civil society also changes under the influence of the new communication technologies on the "virtual" civil society, which has the ability to mobilize rapidly, but is not very stable, and often influenced by various undemocratic, interest and lobby forces. The nature of modern media also changed, earlier considered as independent public space, as the public voice, as the guardian of democracy. Their gradual privatization converted them into a form of business where profit plays a central role. Now is the tabloid media, coalescence with politics and interest groups.

### **Alternative to Economic systems**

Is there a need for a new alternative to economic system? This issue is increasingly discussed. There are different views about how should an alternative to contemporary economic system look like. Many authors stress that there can no longer be only a sort of cosmetic change of the existing system of capitalism, which apparently already exhausted its growth and adaptation potential. It is not being able to stabilize itself. Conversely it is heading to a form of authoritarian capitalism - restriction of political and democratic principles, where elites decide, narrow groups, where cronyism and corruption formalize. There will probably not be any reinstallation of socialism, which in the form of real socialism operating in Central and Eastern Europe discredited itself.

Iлона Švihlíková (Švihlíková, I. p. 155) suggests an interesting alternative, based on new technologies, which necessitate their mass application and are a key factor in the change of the economic system. These technologies, if applied all that was discovered, would lead to about 60% increase in unemployment. According to her, these technologies have in addition to their labor-saving feature, another feature "sharing", which forces interference of outdated copyright monopoly dominated by private ownership.

The new economic system should accentuate the basic needs of the population in those areas. The aging population in developed economies requires emphasis on social and health services - creating the so-called "Care economy". However, there is need for such work, which does not bring profit, is inconsistent with private ownership, it is not attractive to capitalism, does not provide quick returns. Therefore, the current system mainly due to crises privatized these areas, respectively limited them because the majority of people (the unemployed and the elderly) is not needed, it is not necessary to provide them with general social and health care. However, the new system working with the new concept would create a lot of jobs connected with the aging population, an emphasis on ecology, science, and culture. These are activities which by their nature are public and not private.

As pointed out by I. Švihlíková if they should actually work, it has to come to a change of the monopoly of private property ownership and to strengthening of other forms - national, regional, municipal, community, cooperative. These forms should help people to develop an interest in governance - strengthening the political, social and economic rights, which are in current economic systems repressed. Whether it is the operationalization of genuine democracy through public awareness, media ownership by the public or by economic democracy that assumes responsibility, intrinsic activity, but also self-help and solidarity, employee participation. Condition for the functioning of such a system is just democratic decision-making and public scrutiny. Great importance is placed by the author on local production, which will be forced by the need of savings in transportation costs (prices of oil and gas), environmental protection, healthy lifestyle, they all require increasingly strong emphasis on decentralization. In the banking and financial sector is also to be assumed that this is a utility sector, which should assist the growth of the real economy and not by its power and influence to outgrow it. The role of money should be reexamined, a number of operations that do not make sense for the real economy should be eliminated. Here, too, should establish itself democratic decision-making on investments and development at the level of a given region, in a given locality.

Additional alternative solutions include proposed work week reduction, or a very strong movement calling for the introduction of so-called basic income (unconditional) that would exempt people from monotonous and unnecessary activities and supported their creativity. Unconditional basic income is an idea, which is today, especially in German-speaking countries discussed and considered a lot. The aim is a marked change in patterns of social and economic system so that the company was able to cope with rising unemployment caused by automation and rationalization, and that would release the sources for creative work, public activities and gratuitous services, which are in the current socio-economic climate lacking space.

## Conclusion

The transition from unlimited growth to sustainable development reflects the need to allow not only the present but also the future development of individuals and society as a whole. In the industrial stage of development economic growth was artificially supported by maximizing consumption growth, maximizing profits, serial mass production. In a society based on knowledge economy is expected to adequate consumption of goods and services, diversification of production and services according to individual needs. Significant changes can be recorded on the labor market in the concept of labor as human capital. A person ceases

to be part of the masses of homogeneous workforce, uniqueness is welcomed, level of education and general cultivation of the intellect, the need for a flexible labor market, pressure for higher quality. Restoring economic growth connected with employment growth in the reality of labor-saving technology is not possible without a fundamental change in the perception of labor, democracy and governance, emphasis is given on the diversity of ownership, equally important is new understanding of the functions of the state in the era of globalization as well as other important elements of the functioning of the economic system .

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# INTANGIBLE ASPECT OF THE VALUE ADDED

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## Abstract

The most important issue and challenge is to identify and understand concepts and processes that are constantly changing and appearing in almost every company. Implementing and adapting these elements are even more difficult. The processes and procedures are becoming more sophisticated and needs a special handling and knowledge. What is more, moving from tangible aspect to intangible perspective requires effectiveness and quality. Nowadays the concept of value added is important for managers and shareholders in order to make business decisions and to forecast economic situation. Nevertheless, there is still misunderstandings and discrepancies regarding the intangible assets, difference between market value and book value.

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**Keywords:** Value added, book value, market value, intangible assets, and intellectual capital

## Introduction:

Managers and directors were always using company's value added as a factor of normal and stable company's life. The attitude during the years was changing as the environment and economy is developing in a very rapid way. Nowadays many companies moved from tangible point of view to an intangible aspect. Nevertheless, there is still a huge space and discussion left, how intangible assets affect value added generated by an enterprise.

That is why **the main problem** of the scientific paper arises – what is the connection between value added and intangible assets? The concept is based on a difference between inputs and outputs, but what can actually be called this difference? Can we call this difference between inputs and outputs intangible assets or intellectual capital with no doubt? The increased interest in knowledge and information forms an intangible point of view to a company's value added, that is why **the object** of this scientific paper is company's value added and **the purpose** is to analyze the details and concepts related with company's value added. **The methods** used are mainly literature review and statistical data analysis. In addition to this, the significance of knowledge, skills, experience can also lead to interesting opinions and point of views demonstrated by authors, economists and scientists.

## I.

Gherasim (2011) in his research demonstrated a very interesting point of view on a value added. As a theory it is argumentative and can be explained both in a simple or difficult way. Author base his opinion on a K. Marx theory and explains that value added is just the difference between surplus value and capital invested value. There are two types of capital used in value creation process: constant and variable. Constant capital is mainly connected with production and variable capital is mainly investment in labor force. Only variable capital creates a real value added and it can easily be measured as the difference between production price and investments per personnel. Nevertheless, it is not easy as it seems as there are other elements that impede the process. According to Gherasim (2011), physical and intellectual skills, qualification, production and reproduction, time and even wages are parts that closely connect each other and complexity emerges. The labor and a value it creates are two different

elements and the difference between them can be explained as a value added. Gherasim (2011) also gives an explanation of value added: “the added value will mean an additional (extra) value created in production over the amount of capital invested (over the value of labor and inputs consumed in the process).”

Powers (2012) also accentuates that value added is an appropriate tool for revealing that global integration is influencing global economy. All production and services are highly integrated with each other on a global perspective and nowadays it is not so easy to identify and separate value added created by every country. In addition to this, international corporations are creating a huge amount of value added and usually they are based in different countries.

Nogueira et al. (2010) accentuate that book value and market value are not equal and there is a gap between those two financial elements of a company. The difference between book value and market value can be explained only due to intangible assets, mainly intellectual capital. An interesting study was performed by Nogueira et al. (2010) regarding public companies operating in Brazil. First of all, authors considered intellectual capital as the composition of three main elements: human capital, relational capital and organizational capital. Variables for each element were taken from balance sheets, it means, that all variables were quantitatively measured. Number of employees, sales per number of employees and the net profit per number of employees stood for human capital. Sales growth rate were chosen as a descriptor of relational capital. In addition to this, sales and administrative expenses by number of employees and the administrative expenses by number of employees were indicators of an organizational capital. The independent variable was value added. The model showed significant intangible factors' impact on value creation. The most important factor which increases value added of a company is intellectual capital, which can be explained as an amount of intangible assets that owns a company. Nogueira et al. (2010) state that intellectual capital as a concept is still under investigation and it is hard to evaluate and to measure it. Nevertheless, authors try to use Ohlson (1995) model, which is broadly known as an accounting model. It uses Clean Surplus Relation function which integrates balance sheet and periodic income statement. It means that Clean Surplus Relation function evaluates total assets, liabilities and dividends. This model reveals that dividends lessen book value of a company and do not affect actual income. According to Liu, Tseng e Yen (2009), this difference is explained as other data, other information or other reference which can correspond to intellectual capital. Nogueira et al. (2010) accentuate that results of an empirical research revealed that variables, which were closely connected with intellectual capital were significantly correlating with company's value.

Etebar and Darabi (2011) investigated the difference between company's market value and book value. Authors accentuate that namely intellectual capital is the gap between market value and book value and tried to prove their hypothesis while exploring Iran companies. The results revealed that market value of a company is significantly major if approximate variable of intellectual capital is added. Etebar and Darabi (2011) explained that companies with a high level of knowledge-based innovations have a huge difference between book value and market value. Authors are using popular and widely known financial measure EVA (Economic Value Added).

In addition to this, Chen et al. (2005) conducted empirical research, which revealed that intellectual capital helps to increase efficiency in value added creation. As a result, financial performance also significantly ameliorates. In regards to this, Bose (2008) identifies intellectual capital as the main power of value creation in a modern company. Nowadays not financial or tangible assets affect company's financial performance, competitiveness or ability to create value added, all these factors are significantly influenced by intangible assets, which can be called intellectual capital presence. Mohobbot, Khan and Kayeser (2008) even

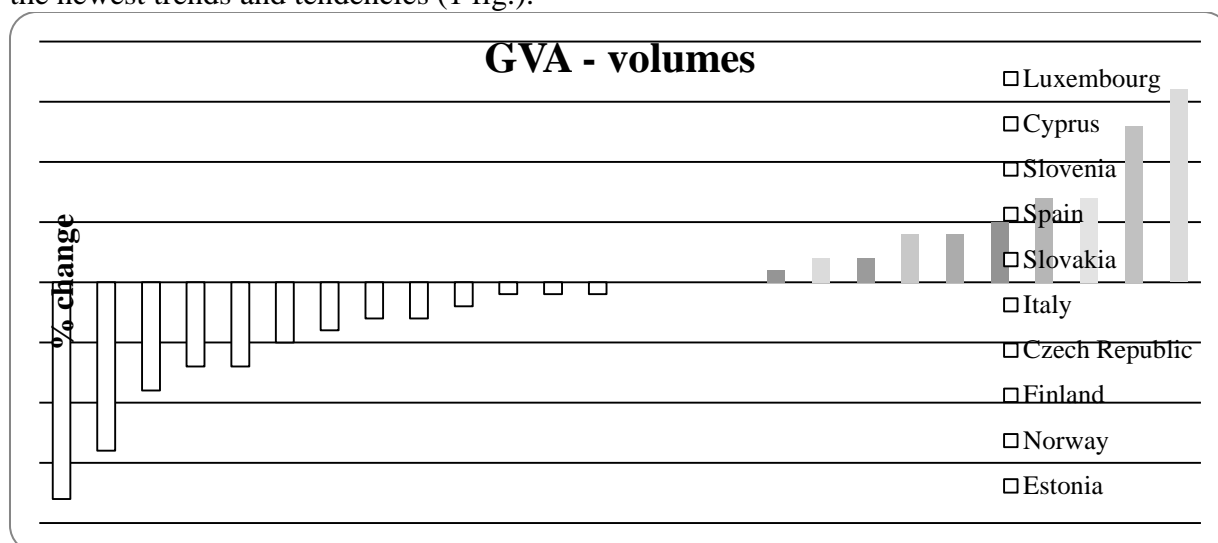


revealed that for public companies stock price is becoming unstable without intellectual capital.

Many companies are trying to move from non value added management models and strive to switch to **value added management models**. For instance, Kalyanam and Brar (2009) explained and revealed the transmission of Cisco, one of the major informational technologies company. Previously the company was using the legacy volume-based model, but it appeared that value-based model is more effective and beneficial. The main base of a value-based model is to identify value add opportunities regarding partners, then to enable value add and inducements to value add results. As outcomes three major structural parts can help to increase success of a company: partner profitability, customer satisfaction with partners and sales of advanced technologies. In addition to this, value added management model focus on customer and customer needs. In order to increase customer satisfaction, the ongoing efficient trainings must be implemented in management system. According to Kalyanam and Brar (2009), the movement from volume-based management model to value-based volume helped to increase partner investments, sales increased by annual growth rate of 36 percent. What is more, Cisco is constantly performing customer questionnaires in order to find out their satisfaction. As a result of successfully changed management system, customer satisfaction score increased significantly from the score of 4.06 in 2001 to the score of 4.61 in 2008. In addition to this, Kalyanam and Brar (2009) investigated and revealed that even such factors as partner profitability and external reputation were improved.

Chatain (2010) identified interesting opinion regarding company's value added. Author stated that important thing is to capture value and it depends on the company's dimension of value added. Author encourages moving from resource-based view of the firm. The most important factor or element for value added creation according to Chatain (2010) is competition. Nevertheless, the model is used more with the client-specific value creation. As a consequence, if a company is able to create a high level of client value, the more competitive it is. The more competitive a company is, the more value it creates. Following the same sequence company's difference between market value and book value also is getting bigger, which can result in better results of any enterprise.

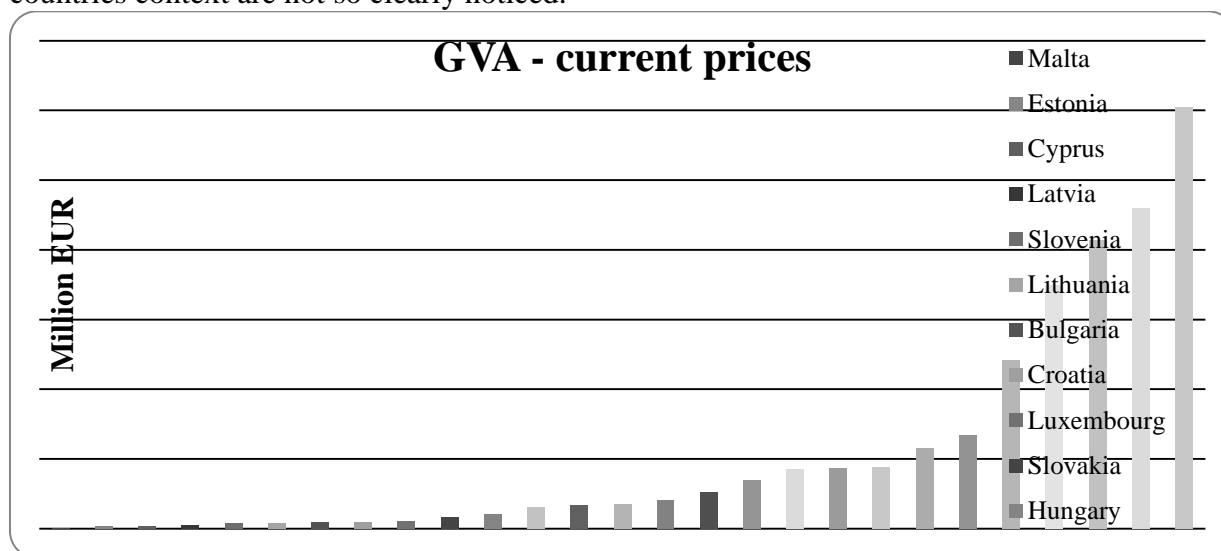
Value added is the main aspect for company's success. Companies are generating value added and the goal is to have constantly increasing percentage of value added. Also the positive and stable gross value added flow means healthy existence of every company. In addition to this, gross value added of European countries was investigated in order to find out the newest trends and tendencies (1 fig.).



Source: Eurostat, 2013

1 fig. Gross value added, volumes, 2013Q1

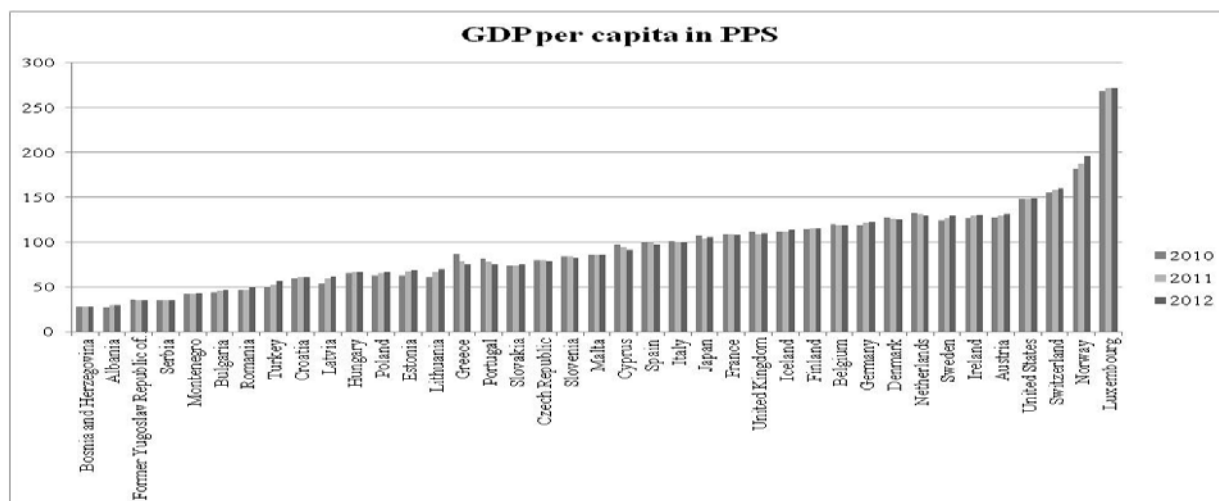
1 figure shows the percentage change of volumes of gross value added in European countries, of the first quarter of 2013. The biggest increase is observed in Latvia, Lithuania and Switzerland. Nevertheless, the percentage change was relatively small: 1.6 percent in Latvia, 1.3 percent in Lithuania and 0.7 in Switzerland. The biggest decrease is observed in Luxembourg with the percentage change of – 1.8 percent. What is more, stability is observed in Belgium, France, Netherlands, Bulgaria, Germany, Austria and Croatia with the percentage of either zero or 0.1 percent change. The significance of intangible assets, such as intellectual capital, helps to stabilize the variations and fluctuation of value added. In addition to this, if the decrease is observed, if the level of intellectual capital is high, the decrease is also not very huge. Of course, these trends are more visible in each company separately and within the countries context are not so clearly noticed.



*Source: Eurostat, 2013*

*2 fig. Gross value added, current prices, 2013Q1*

2 figure shows the current prices of volumes of gross value added in European countries, of the first quarter of 2013. Regarding gross value added assessed with current prices, the biggest increase is observed in Germany (604,260M EUR), France (459,477M EUR) and United Kingdom (414,121M EUR). Current prices also show that Latvia according to created gross value added is almost the last one with the amount of 5132M EUR. Such differences appear due to multiple reasons as the size of a country, number of population, number of small and medium sized enterprises, number of huge international corporations and etc. In addition to this, the development of intangible assets and the amount of intellectual capital in every country varies and fluctuates.



Source: Eurostat, 2013

3 fig. Gross domestic product per capita

It is also important to find out the variation of gross domestic product as it is closely connected with gross value added. 3 figure shows gross domestic product per capita in European countries during 3 most recent available years. It is observed that in Greece, Portugal, Czech Republic, Slovenia, Cyprus, Spain, France, Belgium, Denmark, Netherlands gross domestic product per capita was decreasing during 2010-2012 years. In addition to this, Japan and United States gross domestic product per capita was included in statistical data. The analysis revealed that condition of Japan and United States is quite similar as these countries are stable in created gross domestic product per capita. According to the graph, the hugest gross domestic product per capita creates Luxembourg, Norway and Switzerland.

As statistical data reveals, countries with the significant value of intangible assets have stronger positions with national indicators and indexes. In addition to this, these countries more invest in education, science and research sectors, which can directly result in increased growth, stability and development indicators.

### Conclusion:

As a consequence, the difference between company's book value and market value leads to bigger value added generated by an enterprise. The main problem is to identify, explain and to measure this difference. Nowadays the main feature of this difference is intangibility. Many authors (Gherasim, Powers, Nogueira et al., Liu, Tseng e Yen, Etebar and Darabi, Chen et al., Bose, Mohobbot, Khan and Kayeser) explain this difference as intellectual capital or intangible assets. Other authors (Kalyanam and Brar) even accentuate the importance of value added management models, which are more effective and beneficial. Also there are opinions (Chatain), that intangible assets and intellectual capital create competitiveness and as a consequence enterprises are able to generate more value added. Nevertheless, more investigations need to be conducted in order to reveal the connection between company's value added and intangible assets or intellectual capital.

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# GENDER DIFFERENCES IN INVESTMENT DECISIONS UNDER LOSS LIMITATION

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## Abstract

In our study we focus on the impact of loss limitation on risk attitudes of men and women. We conducted laboratory experiment on risk taking under limited losses. Our results support the outcomes of large scale surveys, whose results shown significant difference in risk taking among genders. Our empirical results show the difference in risk taking decisions on both, unregulated market as well as on regulated markets. Male subject were investing more than female subjects, as predicted. An interesting outcome is that female subjects did not reflect the change in market settings into the change in their decisions. Male subjects increased their wagers in regulated market settings.

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**Keywords:** Long term decision, risk taking, loss limitation

## Introduction:

Long list of titles in economic literature summarizes reasons why government should intervene on the market. The most important ones are market failures and losses in efficiency. Possible way how to overcome market imperfectness and increase social efficiency is to impose regulation. The area of our interest is to investigate the influence of regulation of potential losses on investment behavior. We focus on long term investment decisions (pension funds, long term savings accounts).

We decided to investigate the difference in investment decisions with limited losses between genders. Literature and academic studies based on field data tend to conclude that women are relatively more risk averse than men, whereas the laboratory experiments render inconclusive results.

## Literature review

The existence of gender differences in willingness to undertake risks has been documented in a large number of questionnaire and experimental studies. One of the most cited is a meta-analysis by Byrnes, Miller, and Schafer (1999), which reviewed over 150 papers on gender differences in risk perception. They concluded that the literature “clearly” indicated that “male participants are more likely to take risks than female participants”. Fehr-Duda and de Gennaro (2006) used for analysis abstract and contextual environment. They stated that gender differences in risk taking may be due to differences in subjects’ valuations of outcomes or due to the way probabilities are processed. Published results of their experiment indicate that men and women differ in their probability weighting schemes; however, they did not find a significant difference in the value functions. Women tend to be less sensitive to probability changes and also tend to underestimate large probabilities of gains to a higher degree than do men, i.e. women are more pessimistic in the gain domain. The combination of both effects results in significant gender differences in average probability weights in lotteries framed as investment decisions. The analysis concludes that women’s relative insensitivity to probabilities combined with pessimism may indeed lead to higher risk aversion.

Different results were described by Harris and Jenkins (2006). They observed 657 participants and assessed their likelihood of engaging in various risky activities relating to four different domains (gambling, health, recreation, and social domain), and reported their perceptions of (1) probability of negative outcomes, (2) severity of potential negative outcomes, and (3) enjoyment expected from the risky activities. Women's greater perceived likelihood of negative outcomes and lower expectation of enjoyment partially mediated their lower propensity toward risky choices in gambling, recreation, and health domains. Perceptions of severity of potential outcomes were a partial mediator in the gambling and health domains. The genders did not differ in their propensity towards taking social risks. A fifth domain of activities associated with high potential payoffs and fixed minor costs was also assessed. In contrast to other domains, women reported being more likely to engage in behaviors in this domain. This gender difference was partially mediated by women's more optimistic judgments of the probability of good outcomes and of outcomes being more intensely positive.

In this paper we focus on long term investment decisions inspired by Benartzi and Thaler (1995) who were trying to answer the question: Why is the equity premium so large or why is anyone willing to hold bonds? Their answer is based on two concepts from psychology of decision-making. (1) loss aversion (the tendency of individuals to be more sensitive to reductions in their levels of well-being than to increases – summarized in prospect theory by Kahneman and Tversky (1979); and (2) mental accounting – the implicit method individuals use to evaluate and code financial outcomes - Kahneman and Tversky (1984), Thaler (1985). Myopic loss aversion refers to loss aversion and short evaluation period.

To simulate long term decision making in the design of an experiment we use repeated gambles. Klos et al. (2005) points out that while everyone agrees that risk reduction is a desirable goal, not all definitions of risk are consistent with the observation that risk is reduced by repeated plays. Equating risk with the probability of a loss is only one possibility. Most people would agree that the magnitude of potential losses needs to be considered as well. They investigate the effect of time horizon on investment behavior, and report the results of an experiment in which business graduate students provided certainty equivalents and judged various dimensions of the outcome distribution of simple gambles that were played either once or repeatedly for 5 or 50 times. Despite correctly realizing that outcome standard deviation increases with the number of plays, respondents showed evidence of Samuelson's (1963) fallacy of large numbers. Perceived risk judgments showed only low correlations with standard deviation estimates, but were instead related to the anticipated probability of a loss (which was overestimated), mean excess loss, and the coefficient of variation.

### **Experimental Design**

We conducted computerized laboratory experiment at ESI of Chapman University in April and May 2012 using group of 58 subjects (students of the Chapman University). 33 males and 25 females were randomly chosen from the database. 10 to 14 subjects participated in each experimental session. One session lasted for approximately 50 minutes and the average earning for participant was approximately \$20 (show up fee of \$7 included). Experiment consisted of three parts.

We designed an experiment with two different lotteries (representing two treatments: unregulated and regulated market). Each treatment consists of three rounds of three consecutive lotteries. Subjects were about to decide about the wager for three of lotteries in one round. Subject can decide about the wager from initial endowment of 200 cents within the interval of 0 to 200 for one round of three lotteries. A remarkable series of laboratory experiments has found that subjects are more willing to invest in risky assets with positive expected returns if only aggregated returns are reported to them, rather than the individual

component returns. We informed subjects about monetary result for one lottery as a whole. In “Fair treatment” we defined lottery with 2/3 chance of losing the wager and 1/3 chance of chance of winning 2.5 times the wager. In second treatment (“Unfair lottery”) we limited the possible loss in the case of negative outcome from the lottery to the half of the wager. The third part of experiment was risk elicitation. For risk elicitation we used standard Holt - Laury test (Holt - Laury, 2002). After fulfilling all three parts of experiment, subjects were asked to fill the questionnaire.

### Discussion:

For the evaluation and statistical analysis of results we used the SPSS program. 33 male and 25 female subjects participated in the experiment. According to previous reported large scale analysis results males are significantly more risk positive than females. In our sample males were bidding higher wagers, with the exception of wager number three, but the difference is not statistically significant (see the Independent sample test in Appendix 1) as equal variances were not assumed.

*Table 1: General statistics for wagers according to gender*

	Gender	N	Mean	Std. error mean
<b>wager1</b>	Male	33	121.55	10.367
	Female	25	104.04	9.114
<b>wager2</b>	Male	33	124.67	9.885
	Female	25	112.68	9.050
<b>wager3</b>	Male	33	126.67	10.994
	Female	25	127.80	8.412
<b>wagerIII1</b>	Male	33	147.42	10.016
	Female	25	108.84	7.737
<b>wagerII2</b>	Male	33	145.939	10.4189
	Female	25	110.000	8.4465
<b>wagerII3</b>	Male	33	142.03	11.341
	Female	25	119.12	9.671

\* Wager is referring to the “Fair lottery”. WagerII is referring to the “Unfair lottery”. In this table we present general statistics for wagers in three “Fair lotteries” and in three “Unfair lotteries”.

In regulated setting (Unfair lottery) losses were limited to the half of the wager in the case of negative outcome from three lotteries in one round. The amount of wager increased significantly in this treatment among male subjects. It rose from 121.55 cents for the first wager in “Fair lottery” to 147.42 cents for the first wager in “Unfair lottery”. In contrary, females had consistent amount of wagers for both treatment, in “Unfair lottery” they reported slightly lower wagers.

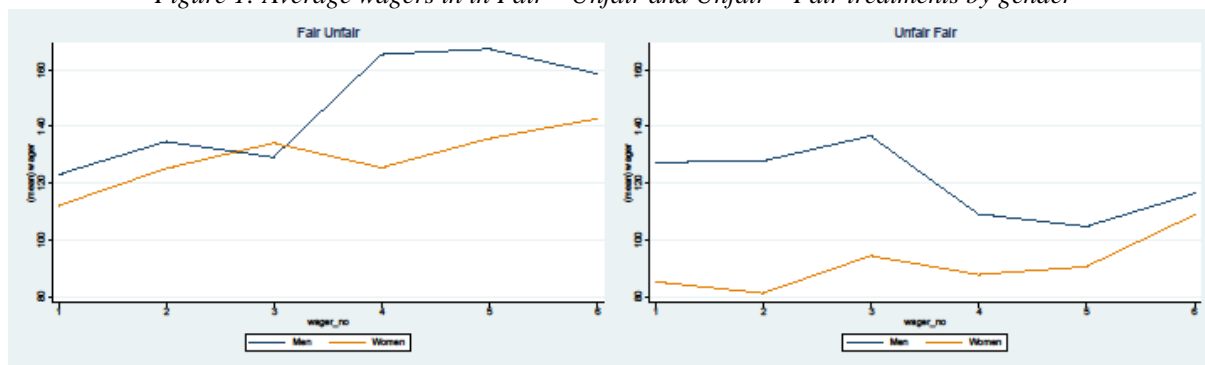
*Table 2: Wagers according to the order of treatments*

Order of Treatments		N	Mean	Std. Error Mean
<b>wager1</b>	Fair First	32	118.94	10.372
	Unfair First	26	107.92	9.547
<b>wager2</b>	Fair First	32	131.09	9.928
	Unfair First	26	105.23	8.502
<b>wager3</b>	Fair First	32	131.03	10.889
	Unfair First	26	122.38	8.892
<b>wagerIII1</b>	Fair First	32	150.41	10.027
	Unfair First	26	106.65	7.426
<b>wagerII2</b>	Fair First	32	155.438	9.1820
	Unfair First	26	99.692	8.5575
<b>wagerII3</b>	Fair First	32	152.63	10.569
	Unfair First	26	106.96	9.502

\* We refer to “Fair lottery” in the case, that there is no limit on losses and gains from lottery, this setting represents unregulated market environment. We refer to “Unfair lottery” if loss in the case of negative outcome is limited to half of the wager. This table shows mean wagers for all subjects according to the order of treatment.

Wagers in situation when subjects were facing fair market conditions followed with regulated market are significantly higher, except for the first wager. We can also observe significant increase in amount of wagers in situation with limited losses. In “Fair lottery” there is no statistically significant difference in the amount of wagers depending on the order of lotteries. We can observe statistically significant difference in wagers in lottery with limited losses. In this treatment, wagers tend to be higher if subjects start an experiment with “Fair lottery”. We investigated if the different order of treatments caused different wagers between male and female subjects. T test statistics for both groups approved that the order of treatments affects more female than male subjects. Female starting with Unfair lottery tend to bid lower in Unfair lottery than in Fair lottery treatment. This results support some previous findings that females are more likely misjudging the level of risk. In Figure 1 we present change in average wagers caused by the change of market environment. We can summarize, that male subjects bid higher wagers than female subjects, except for the third bid in Fair Unfair treatment. This finding is in line with large scale research outcomes.

Figure 1: Average wagers in in Fair – Unfair and Unfair – Fair treatments by gender



To support our outcome we run statistical analysis for averages of wagers in “Fair” and in “Unfair lottery” for every subject. Results are reporting increase in average amount of wager in “Fair lottery” in comparison to “Unfair lottery” within male subjects from 124 to 145 units. Within female subjects the average wager was higher in Fair lottery (but the difference was not statistically significant). Male subjects had higher bids in “Unfair lottery” than in “Fair lottery” and it is statistically significant on the 90% level of confidence. Female subjects were bidding equally low in both treatments.

Table 3: Paired Samples Test for Order of Treatments and Gender

Gender	Order of Treatment	Average Fair Wager	Average Unfair Wager	Paired Differences			t	df	Sig. (2-tailed)
				Std. Error Mean	95% Confidence Interval				
					Lower	Upper			
Male	Fair First	123,8056	134,6389	12,89867	-61,78055	-7,78611	-2,697	19	,014
	Unfair First	117,1282	116,5128	14,89841	-31,84547	33,07624	,041	12	,968
Female	Fair First	128,9500	163,7333	8,92934	-30,48668	8,82002	-1,213	11	,250
	Unfair First	106,5641	92,3590	5,10342	3,08572	25,32453	2,783	12	,017

This table shows that females were more affected by the order of treatments when deciding about wager than males.

We analyzed the impact of the order of lotteries on the amount of wager. Subjects who participated in “Unfair lottery” as the first treatment bid lower average wagers in “Fair lottery”, but this observation is not statistically significant on the 95% level of confidence. We can confirm that with 95% level of confidence that subject tend to bid lower wagers if they start with “Unfair lottery”.

To measure the risk attitudes of subjects we used Holt - Laury test on risk elicitation. Within our sample of 58 subjects 44 subjects clearly expressed their risk attitudes and we could divide them into groups of sensitivity (slightly risk loving, risk neutral, slightly risk averse, risk averse, very risk averse and extremely risk averse). We grouped outcomes and



created three groups of subjects according to their risk attitudes (Risk loving, Risk neutral and Risk Averse). In contradiction to our expectations, risk loving subjects were bidding the lowest wagers in both orders of treatments.

Figure 2: Average wagers in Fair First Treatment

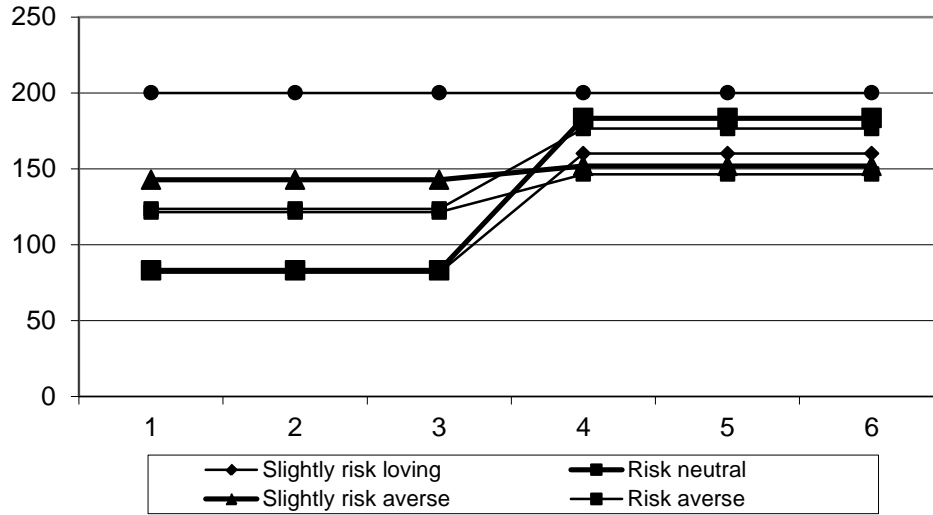
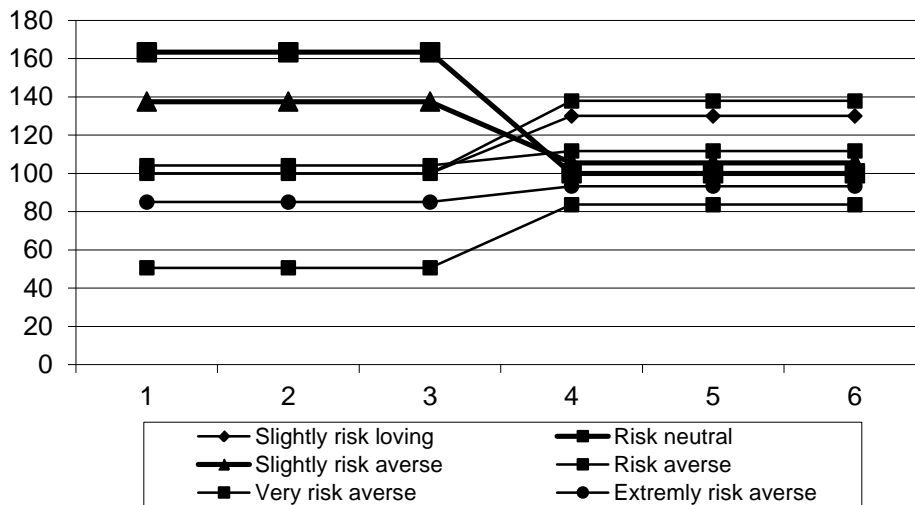


Figure 3: Average wagers in Unfair First Treatment



**Conclusion**

We were focused on long-term decisions, using multiple gambles to simulate this environment. Consistent with previous research studies we expected that male subjects would bid higher wagers than female subjects, that both groups, males and females, would increase their wagers in regulated market (“Unfair lottery”).

In conducted experiment subjects were exposed to two different environments. In Fair lottery they could win 2.5 times their wager with the probability of 33.33 % and loose the wager with probability of 66.66 %. This setting was representing unregulated market. In Unfair lottery losses from lottery were limited to the half of wager. This setting represents regulated market. The results of our investigation showed that male subjects were bidding higher wagers than female subjects in both treatments. This outcome is consistent with large scale surveys. Within male population we found support for our second expectation as well.

Average wagers of males were higher in regulated lottery. Average wagers of females were lower comparing the ones of males.

Surprisingly, female subjects bid lower wagers in regulated lottery but not on reasonable level of statistical significance, which means that they did not changed their behavior. In comparison the male subjects were able to better assess the change in risk and were learning to higher wagers in unfair lottery. We can explain this using observation from large scale surveys, which state that females are less sensitive to the change in conditions and level of risk. This conclusion remark needs to be investigated in further research.

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# THE RELATIONSHIPS BETWEEN SELECTED DEMOGRAPHIC FACTORS AND ACCEPTABILITY OF CONSUMER INSURANCE FRAUD

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## Abstract

Consumer insurance fraud represents considerable problem in insurance industry. The association of European insurers – the Insurance Europe – estimates that detected and undetected consumer fraud represents up to 10% of all claims expenditure in Europe (Insurance Europe, 2012). In theoretical and empirical research, incentives for committing this type of fraud are explained variously. However, the role of demographic factors is marginalized. In this paper, we analyze the relationships between selected demographic factors and the level of acceptability of insurance fraud commitment among Slovak respondents. Even though that acceptability of consumer insurance fraud does not represent the real action, these two variables are strongly linked. Based on our results, we could conclude that the level of insurance fraud acceptability among the respondents varies based on their age, gender, level of education and religion. In line with previous research, we find that women, highly educated individuals and elderly individuals understand different types of fraudulent behaviour as less acceptable. In addition, our study analyzes the role of religion and income level. Whereas in the case of religiosity, we confirm our assumption that respondents who declared themselves as believers in whose lives religion plays important role understand consumer insurance fraud as more unacceptable than nonbelievers, the role of personal income stays unclear.

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**Keywords:** Consumer insurance fraud, insurance industry, fraud acceptability, demographic factors

## Introduction:

Consumer insurance fraud represents considerable problem in insurance industry. Each year insurers spend an enormous amount of money on fraudulent claims (Miyazaki, 2008). The association of European insurers – the Insurance Europe – estimates that detected and undetected consumer fraud represents up to 10% of all claims expenditure in Europe (Insurance Europe, 2012).<sup>53</sup> A significant part of these expenditures are spent on opportunistic or “soft” consumer fraud that represents the most difficultly detected type of consumer insurance fraud. It involves attempts to get excessive payments for a legitimate insurance claims and it is committed by law-abiding citizens (Coalition Against Insurance Fraud, 2007; Miyazaki, 2008; Tennyson, 2002; Viaene and Dedene, 2004; Weisberg and Derrig, 1991). In addition, this type of fraud represents one of the most misunderstood types of crime, when the majority does not understand this type of action as unacceptable and tolerate this kind of behaviour in social community (Miyazaki, 2008). In the survey carried out by Tennyson (2002), it has been identified that 73.8% of respondents think that these types of claim are commonplace and they viewed this kind of behaviour as widely acceptable.

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<sup>53</sup> Experimental economic research reveals even higher values (Gabaldón, Hernández and Watt, 2011).

In theoretical and empirical research, numerous studies have focused on explaining incentives for committing this type of fraud. The explanations vary from misunderstanding the contract and subsequent differences in expectations (e.g. Lesch and Baker, 2013), changes in morality, poverty, intermediaries' behaviour, (e.g. Dionne, 2000), previous negative insurance experiences (e.g. Tennyson, 2002), contract design (e.g. Lammers and Schiller, 2010; Gabaldón, Hernández and Watt, 2011), claims settlement strategies (e.g. Crocker and Tennyson, 2002), etc. However, the role of demographic factors is marginalized in this type of behaviour.

As there exist assumptions that moral judgements are connected with some demographic characteristics of the individual (e.g. Milanowicz and Bokus, 2012; Vauclair, and Fischer, 2011) and also behavioural literature indicates that these factors play an important role in fraud in many financial areas, especially compliance behaviour of taxpayers (Devos, 2008; Cumming, Leung and Rui, 2012), we assume that these factors may also have influence on the consumer insurance fraud acceptability.

In this paper, we analyze the relationships between selected demographic factors and the acceptability of insurance fraud commitment. The study focuses on attitudes on insurance fraud acceptability, not actual insurance fraud.<sup>54</sup> Understanding of the determinants of consumer insurance fraud acceptability could help improve prevention efforts of insurance companies and government (Tennyson, 2008) as well as it could also help in revealing perpetrators of insurance fraud. From the view of insurers, consumer demographics could be easily obtained and enable to create typology of insurance consumers and their fraud inclination.

The paper is organized as follows. In first section, we define selected demographic factors and their role in the consumer insurance fraud acceptability, according to previous research. In the second section, we explain our dataset and used methodology and in the last section, we discuss empirical results.

### **Literature review and theoretical background:**

The role of demographic factors in consumer insurance fraud has not been widely researched. In comparison to the research of fraud in other financial areas, the role of these factors in insurance fraud has been marginalized. Only a few authors (Dean, 2004; Dionne and Wang, 2011; Lesch and Baker, 2013; Miyazaki, 2008; Tennyson 1997, 2002) have focused on this issue and researched characteristics that include gender, age, education, income and religion. In the next part, we are going to review the role of each factor according to previous studies.

*Gender.* The majority of studies concluded that gender and dishonesty are connected and men are more likely to be dishonest than women (Dreber and Johannesson, 2008; Childs, 2012; Friesen and Gangadharan, 2012). In the area of insurance fraud tolerance, the role of gender were firstly researched by Tennyson (1997, 2002), who has explored the determinants of consumers' attitudes toward filling exaggerated automobile insurance claims. She has observed that women are less tolerant to claims fraud. Her findings have been also confirmed by experimental economic research, where Dean (2004) as well as Miyazaki (2008) have found lower level of insurance fraud tolerance among women.

*Age.* Age along with the gender represents the most researched demographic factor in the insurance fraud acceptability. In general, age is considered as a significant factor in all financial decisions, including insurance fraud (Doerpinghaus, Schmit and Jia-Hsing Yeh, 2008). Explanations for its significance vary from a higher level of risk aversion in the group of elderly individuals, to the amount of their experiences, etc. Concerning insurance fraud,

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<sup>54</sup> Acceptability of consumer insurance fraud represents the individuals' attitudes to this type of behaviour. Even though that attitudes do not represent the real action, these two variables are strongly linked (e.g. Akers, 2003; Bem, 1970; Warr and Stafford, 1992).

some evidences support an argument that the older the persons are the more serious they consider insurance fraud (Jou, 2013; Tennyson, 1997, 2002). The relation between age and insurance fraud tolerance is, therefore, inverse (Lesch and Baker, 2013).

*Income.* In different types of white-collar frauds, including tax evasion, the role of income level is mixed and unclear (Devos, 2008). Nevertheless, findings for the insurance fraud are more homogenous. According to Dionne and Wang (2011), insurance fraud is related to an individual's morality that may also vary with income level. In addition, as insurance claims may increase individuals' income, there are assumptions that respondents with lower income could be more tolerant to insurance fraud (Tennyson, 2002).

*Education.* In economic theory, relation between educational attainment and criminal behaviour is negative (Lochner, 2007). However, schooling has only small positive effects on white-collar crime, including insurance fraud (Lochner, 2007). Even though Tennyson (1997, 2002) has observed that highly educated individuals are less tolerant to insurance fraud, the role of education in consumer insurance fraud perception is hard to uniquely determine. Problems are caused mainly by the way of educational attainment measuring, where a higher level of education does not imply the higher level of financial literacy.

*Religion.* Generally, religion influences fraudulent behaviour negatively. The stronger is the level of individual's religious beliefs, the lower is the risk of his/her fraudulent behaviour (Stack and Kposowa, 2006). It can be assumed that a similar relationship could be identified between religion and insurance fraud, even though it has not been scientifically proven yet. Indeed, the role of religion does not depend on the religious affiliation but more on whether the individuals are actively practicing their religion. After all, almost every religion advocates "good behaviour", which insurance fraud does not include.

### **Data and methodology:**

The data for our research were obtained from the broader survey conducted by the Department of Insurance at the University of Economics in Bratislava. The purpose of the survey was to reveal Slovak inhabitants' views on insurance issues. Survey was conducted from the 1st June 2013 to the 31st July 2013 electronically and also by paper version. We obtained 447 completed surveys, from who 314 subjects were randomly selected according to age and gender based on the demographic characteristics of the Slovak Republic (Statistical Office of the Slovak Republic, 2012). From the view of gender, sample consisted of 51,3 % of women and 48,7 % of men, and from age perspective 15,3% of respondents were in age 18 – 24, 39,5 % were in age 25 – 39 and 45,2 % were in age 40 - 61.

The questionnaire consisted of three parts. In the first part, we asked respondents about their demographic factors: gender, age, income, education and religion. While questions about gender, age, income and education were simply constructed. In terms of religion, we asked respondents about the role of the religion in their decisions. We did not simply ask respondents about their religious affiliation but we focused more on whether they are practicing religious rules in their lives. The main reason for this formulation of question was the fact that even though a lot of people identified themselves as members of religion (due to e.g. the family traditions, habits or many other reasons), they do not always behave according to the religious rules (e.g. Smith et al., 2003). Our respondents could, therefore, identify themselves as a member of one of three groups: strong believer, in whose decisions religion plays an important role; believer in whose decisions religion does not play an important role; and nonbeliever. In the second part of the questionnaire, we focused on respondents' attitudes to different forms of fraudulent behaviour. We formulated these statements as behaviour of other people for ensuring that individuals would feel free to be honest in answering questions as they were speaking about other people's "bad" behaviour (Ariely, 2013). Respondents used six point Likert-type scale (with 1 defined as totally acceptable behaviour and 6 defined as totally unacceptable behaviour) for evaluation four different types of behaviour, including:

1. Misrepresenting the facts on an insurance application in order to obtain lower insurance premium rate,
2. Submitting an insurance claim for damages that occurred prior to the insured accident,
3. Misrepresenting the nature of an incident to obtain insurance payment for a loss not covered by policy,
4. Falsifying receipts or estimates to increase the amount of an insurance settlement.

Each definition was accompanied by practical example with the aim to raise clarity and imagination of these actions. In addition, we avoided using word “fraud” or its synonyms in the whole questionnaire. The main reason for this was to avoid identification our questions with “illegal behaviour”.

### **Empirical results and discussion:**

From the general point of view, our respondents understand fraudulent behaviour in insurance as more unacceptable than acceptable (p-value < 0.001). They evaluated all types of fraudulent behaviour by 4.52 points on average on a 6 points scale (with 1 defined as totally acceptable behaviour and 6 defined as totally unacceptable behaviour). Only 13.69% of respondents evaluated different types of fraudulent behaviour on the lower half of the scale (less or equal to 3) and merely 1.6% of respondents understand all types of behaviour as totally acceptable. On the individual act basis, this value varies between 3.2 to 7.9%.

Respondents considered the second type of offered situations (“Submitting an insurance claim for damages that occurred prior to the insured accident”) as the most acceptable behaviour and evaluated it with the lowest average value. This behaviour represents the only one, where loss really exists and it also represents the most common behaviour mainly in automobile insurance. Detailed results are listed in Table 1.

*Table 1 – Average values of insurance fraud acceptability*

	N	Mean	Std. Deviation
Misrepresenting the facts on an insurance application in order to obtain lower insurance premium rate	314	4,54	1,489
Submitting an insurance claim for damages that occurred prior to the insured accident	314	4,19	1,642
Misrepresenting the nature of an accident to obtain insurance payment for a loss not covered by policy	314	4,81	1,432
Falsifying receipts or estimates to increase the amount of an insurance settlement	314	4,82	1,423

We analyzed the differences in individual respondents’ attitudes to acceptability of fraudulent behaviour in terms of selected demographic factors including gender, age, education, personal income and religion of the respondents. In general, our results are in line with previous research (Dean, 2004; Tennyson, 1997, 2002). We found that men, low educated individuals and younger respondents understand all types of offered fraudulent behaviour as more acceptable. Men displayed a higher acceptability in all four types of offered situations but differences between men and women assessment were similar in all four types of offered fraudulent behaviour. Our data also showed that elderly individuals understand all types of behaviour as less acceptable in comparison to younger respondents.

The exception is the third type of behaviour (“Misrepresenting the nature of an accident to obtain insurance payment for a loss not covered by policy”), which the group of 18 - 24 years old respondents assessed equally to the group of 40 - 61 years old respondents. However, even though that younger individuals assessed insurance fraud as more acceptable the lower values were obtained from the respondents in the age 25 - 39 years. Regarding the relationship between the education and acceptability of this type of behaviour, we obtained expected results. Individuals with a higher education attainment displayed lower levels of insurance fraud acceptability. However, these differences are not statistically significant in all

cases. Analysis of income level brought mixed results. On the one hand, respondents with gross monthly income lower than 330 € showed the higher values of insurance fraud acceptability in comparison to respondents whose monthly income is 1500 € and more. But on the other hand, income levels 331 €- 660 € and 881 €- 1500 € revealed even lower values of insurance fraud acceptability. These results, therefore, are not clear as well as they are not statistically significant. The last factor that we examined was religion. Analysis of the relationship between respondents' religion and consumer insurance fraud tolerance partially confirmed our assumptions. Respondents who declared themselves as nonbelievers assessed fraudulent behaviour as more acceptable than other two groups. However, respondents who declared themselves as strong believers (in whose decisions religion plays an important role) chose the higher values of acceptability of offered behaviour than believers (who declared that religion does not play important role in their lives). Thus, strong believers' values were closer to nonbelievers than to believers. This observation is in conflict with our assumptions that individuals who declare themselves as a strong believers understand fraudulent behaviour more unacceptable than anyone else does. Detailed results as well as values of factors statistical significance are shown in table 2.<sup>55</sup>

Table 2 – Average values of insurance fraud acceptability based on demographic characteristics

	Misrepresenting the facts on an insurance application in order to obtain lower insurance premium rate	Submitting an insurance claim for damages that occurred prior to the insured accident	Misrepresenting the nature of an accident to obtain insurance payment for a loss not covered by policy	Falsifying receipts or estimates to increase the amount of an insurance settlement
<b>Gender</b>				
Female	4.63	4.46	5.09	5.04
Male	4.46	3.90	4.52	4.59
p-value	.309	.002	.001	.013
<b>Age</b>				
18 - 24 years old	4.46	4.06	4.94	4.60
25 - 39 years old	4.39	3.82	4.61	4.65
40 - 61 years old	4.71	4.55	4.94	5.05
p-value	.055	.001	.064	.005
<b>Education</b>				
Elementary	4.05	3.98	4.72	4.66
High school	4.81	4.30	4.84	4.88
University	5.10	4.41	5.03	5.14
p-value	.000	.201	.764	.343
<b>Income</b>				
Less than 330 €	4.58	4.25	4.91	4.94
331 €- 660 €	4.13	3.97	4.82	4.66
661 €- 880 €	4.79	4.38	5.05	4.98
881 €- 1500 €	4.18	3.86	4.39	4.45
More than 1500 €	4.89	4.31	4.56	4.89
p-value	.024	.378	.319	.404
<b>Religion</b>				
Strong believer	4.41	3.91	4.56	4.64
Believer	5.07	4.93	5.50	5.57
Nonbeliever	4.54	4.23	4.84	4.81
p-value	.077	.013	.010	.005

Note: p-values computed by the Kruskal–Wallis one-way analysis of variance indicates statistical significance of differences across categories

<sup>55</sup> Regarding the sample size, we considered with 10% level of statistical significance.

**Conclusion:**

The paper examines the relationships between selected demographic factors and the acceptability of insurance fraud commitment. The study focuses on attitudes on insurance fraud acceptability, not actual insurance fraud.

Based on our results, we could conclude that observed depth of perceived acceptability varies among individuals and this variance is not random. Theoretical and empirical research indicates that there are a lot of explanations for this variance, demographic factors including. The results of this study support the assumptions that the demographic factors play specific role of in the individual's perception of acceptability of insurance fraud. In line with previous research (Dean, 2004; Tennyson, 1997, 2002), we found that women, highly educated individuals and elderly individuals understand different types of fraudulent behaviour as less acceptable. Besides these factors, we also analyzed the relationship between income level as well as religion and respondent's attitude to insurance fraud. However, our results are not clear. The differences between the higher and the lower levels of gross monthly income were as predicted. But the differences in attitudes of respondents in the middle income levels did not follow expected pattern. Similar results were obtained regarding the role of religion. We found that nonbelievers assessed claim fraudulent behaviour as more acceptable in comparison to believers. At the same time, nonbelievers also understand insurance fraud very close to individuals who declared themselves as a strong believer, which opens the issue about level of their overconfidence and/or hypocrisy.

There are clearly many factors that play an important role in formation of consumer attitudes to insurance fraud. Demographic factors of consumers represent only a small group. However, not only that they could be easily obtained from consumers by insurers, moreover understanding of the relationships between these characteristics and level of consumer insurance fraud acceptability could help improve insurance fraud prevention efforts of insurance companies and government (Tennyson, 2008). In addition, understanding of their role in insurance fraud acceptability could also enable to create typology of insurance consumers and their fraud inclination, which could help in the process of potential insurance fraud perpetrators identification.

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# IMPLEMENTATION OF APPROACHES TO INNOVATION MANAGEMENT OF PUBLIC ADMINISTRATIONS INTO INDUSTRIAL COMPANIES. THEORETICAL CONSIDERATIONS AND MODEL FOR PRACTICAL REALIZATION

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## Abstract

At the beginning the article focuses on general thematic considerations and explains why the implementation of approaches towards innovation management of public administrations into the private sector can be regarded as a reasonable aim. Furthermore, the underlying basic hypotheses are being established. Afterwards, the individual steps of a generally applicable implementation model will be described in detail and additional considerations on implementations and instructions on the course of action will be provided. At the end of each process that has been realized this way, a structured evaluation of the implemented methods and actions will be conducted.

On the basis of a specific instruction on the course of action the article describes a generally usable model with the necessary work stages, instruments and required accompanying measures.

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**Keywords:** Innovation management, implementation of approaches towards innovation management, public administration

## Introduction:

As industrial companies are constantly challenged to work and improve on their products and services regarding innovations in order to remain a viable force among the competition a structured innovation management is becoming increasingly important.

The innovation management is required to create an environment in which new ideas or approaches are generated and realized. It is necessary that employees for innovation development and implementation in the different departments are provided with certain surroundings in order to ensure long-term corporate success.

Additionally, there is the responsibility for the development, introduction and implementation of technical and socio-technical products, which are new company-wise, as well as processes and solutions (cf. Stummer/Günther/Köck, p.25). On the one hand, attention must be paid to the technical and content-related implementation of the innovation process and, on the other hand, the social integration of every change in the corporate system needs to be monitored and coordinated.

This is accomplished through the development of communication structures as well as the implementation of incentive schemes and the reduction of innovation and change resistances.

Due to the fact that different parameters lead to generally different approaches towards problem solutions, a new approach towards finding ideas and possibilities in innovation

management of companies will be presented in order to specifically support the first step of innovation management.

Insights and approaches from various areas of public administration will be utilized for industrial companies.

Even though the structures of public administrations differ from those of industrial companies in many areas it is productive to elaborate common features and to implement promising solutions.

## **Basis**

Some basic thoughts are preliminary to the idea of an implementation of approaches in the public administration. In a first step, the structure and the similarities of the innovation systems of the industrial sector and the public administration will be examined.

## **Structure of the innovation systems of the industrial sector and the public administration**

The following elements define an innovation system (cf. Koschatzky, 2011, p. 19) according to which industrial companies have to act:

**1. Institutional structures:** Through other companies, research firms, government regulations, networks and routines institutional structures are being created.

**2. Incentive schemes:** Incentives for persons and institutions in order to promote technology transfers, learning processes, qualifications, startup companies, etc.

**3. Skills and creativity of the actors:** The actors within each system differ from each other regarding their skills and creativity as well as the variety of goods and services.

**4. Cultural characteristics:** Cultural characteristics come into action regarding a different approach towards and usage behavior of technology as well as social acceptance of the possibility of failing self-employment.

These elements can also be applied to public administrations. Additionally, however, three thematic factors, which have a determining influence on innovation activities, need to be taken into account (cf. Geppl, p. 19):

**5. Provisions of the law:** The power to establish laws or enactments is an instrument only official entities legally dispose of. At the same time these entities are to 100 percent bound to legal regulations, partly with explicit implementing provisions, which leave little to no scope for innovative implementations.

**6. Fiduciary application of funds:** Public funds are to be applied conservatively and reasonably as they are composed of fiscal revenue, taxes and fees of third parties. Particularly for this reason the generation of new competitive structures based on innovation steps (a normal process in a market economy in the industrial sector) is a highly controversial process and depicts a highly political method of control.

**7. Compulsory inclusion of the public:** The public administration is constrained (and partly legally bound regarding the duty of disclosure) to inform the public and third parties. This is also valid for areas based on innovations. Constant communication with the public may therefore be necessary. Through increasing experience and implementation of pilot innovation processes the standards are being developed on the basis of an evaluation and a developing administration. The above-mentioned factors, which are characteristic of the public administration, can often lead to the development of approaches, solution processes or operating principles that would seldom or never be realized or chosen in a company.

Nevertheless, there are cases in which unrecognized potential for innovations can be utilized for a company.

Based on these theoretical findings a model has been established, which can be used repeatedly in order to simply examine various observations in public administrations, gained

in a structured or arbitrary way, regarding a potential usage in the company. Thus, a decision about the realization or rejection of potential approaches is to be made as quickly as possible. Some of the initial hypotheses need to be verified by the project manager of the respective company during the preparation stage.

### **Initial hypotheses for the implementation process**

The whole implementation process is based on various assumptions that function as initial hypotheses:

- In the private sector as well as in public administration the field of structured innovation management experiences an increasingly active elaboration and constant professionalization (cf. Engel/Nippa, p. 67 seq.).
- In both organizational forms this is partly based on efficiency analyses but also on various other factors such as profiling, maintenance of power and other mechanisms (cf. Schliesky/Schulz, p. 106 seq.).
- Segments of the innovations system, the innovation processes and the innovation impulses cannot be applied equally as each of them show different specifics. However, the basic hypotheses and aims for the generation of an idea, the definition of an area of application and its successful implementation are comparable or similarly recognizable (Koschatzky 2011: p. 19).
- There are certain subareas in which the examination of an implementation of solution processes in innovation management from public administration into the private sector seems reasonable – be it due to specific approaches, ideas or higher pressure. This was also proven by the field trial of this model.
- Especially in view of numerous examples of success, which have already shown the chances of an implementation the other way round, the implementation of such a model is productive also for the respective industrial company.

### **The implementation process**

Based on the assumptions described in section 1 the implementation process can be run through and structured as follows. Prior to the commencement of the operational steps, however, a project manager or a committee with explicit decision-making structures within the company must be appointed. These will be responsible for planning, implementing and realizing the particular steps of the process. The manager or the committee needs to pay attention that the process steps will be handled correctly content-wise. They furthermore need to involve suitable employees or choose professionally qualified experts where necessary. It is in the nature of the process that there is a certain flexibility regarding its organization such as the moderation of the work stages, which the project manager can or must use in order to promote the process and obtain concrete results.

1. Selection of administrative approaches: The definition of potential administrative approaches, which will be examined regarding their innovative character and usability in the company within the framework of the implementation process. Those projects of the public administration which have been awarded with prizes at various national and international award ceremonies and contests will be used to identify attractive approaches. The results of these contests are often communicated very actively by the public sector entities and are thus easily accessible either regionally or transregionally via the websites of these entities (cf. Public Administration Award 2010). If this is not wanted, the interested company needs to establish a jury consisting of experts in the fields of public administration and private economy. Thus, the specific approaches, which are to be examined for the company, can be selected. Regarding a jury created specially by the company itself, various assessments and external opinions need to be expedited from the beginning. The jury is to be assembled in a way that it can remain unaltered in the long

term in order to recurrently present its approaches to obtain a structured, repeatable process. The final decision on the jury members as well as the determination of the number of members is made by the project manager of the company, taking into account options and manageability. The implementation process definitely profits from a variety of knowledge and experience among the jury members.

2. Progressive abstraction: The second step consists of the abstraction of the respective approaches with an eye toward the actual aim and the object of the efforts made through progressive abstraction (cf. Vahl, p. 109 seq.). The approaches of the public administration chosen this way are being revised in the sense of answering the core question regarding the underlying purpose “What does really matter?”. For that purpose the instrument of progressive abstraction is being applied. Thus, super-ordinate relationships can be identified and it will be determined which problem could be solved by which approach. This abstraction is being conducted by the project manager and a self-assembled workshop team (cf. Vahl, p. 109 seq.).

Implementation:

1. Description of the original problem
2. Reformulation of the problem
3. Trying to approach the super-ordinate relationship through the question “What does really matter?”
4. Search for new solution processes, which function as the origin for the reformulation of the problem in the next abstraction step
5. Repetition until the maximum abstraction step is reached

The project manager is required to supervise the disciplined adherence to the sequential processing of these five steps.

3. Creation of an expert pool: In order to evaluate and measure these abstracted approaches regarding the quality of the content, measured by innovative character and usability in an industrial company, a pool of experts is being created. Depending on the problem, availabilities and temporal possibilities, this pool should be as big as possible. Not only the number but also the heterogeneity of the matters, which the experts have to deal with during their work routines, is important. It is, for instance, essential not to survey only responsible officers from a locally operating media company as they would certainly assess potential problems in logistics differently than managers of a plant construction firm that operates on an EU-wide basis.

Ideally, the expert pool is composed of skilled and key employees or business executives as well as high-level management representatives. The inclusion of industrial association representatives is also worth considering. However, it has to be pointed out that the evaluation of innovation approaches can be difficult if it cannot be conducted from the view of a company with concrete needs and aims. A short briefing of the experts by the project manager regarding the evaluation possibilities and the time schedule of the evaluation process increases the expected response rate. The experts are selected by the project manager under the realistic assessment of availabilities and the willingness to actively and thoroughly participate in the overall process.

4. Creation of a questionnaire: A questionnaire is being established for a specific and structured survey among experts from industrial companies on their opinions on the innovative character of a certain measure as well as its applicability. The organization as the project applicant, the project name and the result of the progressive abstraction are listed on the questionnaire. In order to display the experts' assessments two more columns are being inserted. One column is used to rate the innovative character of the respective project from “1”, which means that the idea is highly innovative, to “5”, which means that the project does not have any innovative character. The second column is used for rating the usability of the approach. “1” means that the approach is usable at all times, “5” means

that the approach is utterly useless. A sample questionnaire is presented in the attachment to this paper.

5. Evaluation of the survey data: It is the aim of the evaluation to offer a recommendation regarding the examination of possible implementations of approaches. Thus, the average value of expert opinions is gathered in the same way as the ones of the interested company. This way the evaluation of the most promising approaches for the company can be conducted step by step.

In the scope of the evaluation of the survey data the following questions and relations are being dealt with:

- Function of the expert: skilled and key employees vs. management function
  - Assessment of the innovative character of the approach – calculation of the experts' average rating
  - Assessment of the approach's usability in the company – calculation of the experts' average rating
  - Determination of the approaches with the highest and lowest average value regarding innovative character usability in the company
6. Modification for the industrial company: Based on these assessments the evaluations of the industrial company are compared to the average ratings of the experts. Thus, potentials and special features in the relative assessment of an approach can be disclosed to the company in comparison to the average of "normal" evaluations in order to add them to more detailed considerations during the next step. Through comparing the average ratings of the experts with those of the interested company it is possible to detect and prioritize the approaches that have been rated highly in terms of usability and innovative character in order to focus on their implementation in a time-efficient way. Field testing has shown that it was unrewarding to work on those approaches that had been rated more negatively by the company than by the experts as concrete, specific considerations are often contradictory.
  7. Examination of the practicability in the company: The development of the approaches identified according to the above-mentioned criteria regarding potential ways of an implementation to be used in the industrial company takes place in a structured workshop on the basis of a questionnaire for each of the abstracted approaches. This workshop is being managed and moderated by the project manager in order to uphold the time pressure without hinting to preformed ideas. Every abstracted approach is being presented within five minutes each. Afterwards, actual examples of implementations in the public administration will be depicted in order to demonstrate potential fields of application and to broadly describe the range of application through a publication issued by the public administration on the projects and approaches. If necessary, publications or project descriptions need to be requested from the respective authority. The questionnaire must be completed in 20 minutes at the maximum. This will be communicated at the beginning of the workshop in order to create a certain time pressure. Thus, the ideas that do not directly seem usable are being dismissed quickly (cf. transcript, workshop transformation model, p. 5 seq.). Between each of the approaches the project partners can take a break of approximately ten minutes.

Elements that need to be addressed (in the following order) during the workshop with the respective representatives of the interested industrial company:

- Description of the abstracted approach
- Definition of the uniqueness or special kind of approach
- In which areas of the company could these special approaches be used?
- Which advantages and disadvantages does this approach offer?
- Which problems arise regarding the utilization of the approach for the company?

- How can these problems be dealt with in order to still secure the approach for the industrial company?
  - Which groups of persons, stakeholders or third parties are required to utilize this approach in the industrial company?
  - Which rights, approvals or accesses are necessary for implementing the approach in the industrial company?
  - Can necessary investments or potential savings as well as income sources be assessed?
  - How could the individual steps of the realization look like?
  - According to which chronological order can these steps be implemented?
  - How does a communication plan for the industrial company (externally as well as internally) have to be designed?
  - How high is the probability of realization after answering these questions? Are there still problems regarding the realization, which have not been brought up yet? How can these problems be tackled?
8. Planning and realization: Together with the responsible representatives of the industrial company a project plan regarding the configuration and implementation of the adapted approaches in the company needs to be established, which will be done according to the pattern described in section 7. It is of central importance for every project plan and implementation as well as for the realization of the recently acquired approaches to clearly define consistent objectives, reasonable partial responsibilities and an entity with overall responsibility. A commonly agreed time frame of the realization with clearly defined milestones partly prevents a delay in implementation. The project manager should record the plan agreed upon and communicate it to all participants.
9. Evaluation: The evaluation of a process is necessary to use, on the one hand, potential room for improvement even after the completion of the implementation and, on the other hand, to maintain an attractive basis for further implementations and improve the ongoing process. For this purpose it is important to relate the evaluation precisely to the object of the implementation and not to foreground other factors, such as for example the personal relation between two participating actors. The evaluation needs to be done according to precisely defined criteria. The evaluation will be conducted by the partaking members of the industrial company but not those of the expert pool. The project manager must present the evaluation results to his or her superior authority as objectively as possible. Afterwards, the results need to be discussed in order to draw conclusions regarding future management. The purpose of a consistent evaluation form is to obtain feedback from the partaking decision makers and participants in the process. Additionally, a final evaluation of success or failure of the whole process from a subjective corporate view can be carried out on the basis of the results of the responses in the post processing with the project manager's superior authorities through comparing the required efforts in the implementation process and the achieved insights. This serves as the basis for further potential implementation steps. A sample evaluation form is presented in the attachment.

### **Conclusion and concluding remarks about the support regarding the implementation process**

In order to make a success of the process in the interested industrial company, which means the realization of a concrete innovation project, a further development of the respective innovation and project management, which encompasses support, motivation and information of all parties in the company involved in the implementation, is necessary additional to the already mentioned work steps and an authorized project manager. This is also shown in the example of the partner company CEMEX (cf. CEMEX 2012), with which a first field trial has been documented in the transcript.



This is valid regardless of whether the process is being implemented professionally in an in-house or a different department.

Furthermore, innovation management needs to provide employees with appropriate frame conditions for innovation development and transformation in the different corporate divisions in order to ensure long-term success and create a certain feeling of commitment.

This is, on the one hand, accomplished through the development of communication structures and, on the other hand, through the implementation of incentive schemes and the reduction of innovation and change resistances. It is vital to provide incentives, monetary or motivated through praise, during the implementation of a process. A short, detailed explanation and an overview over the planned efforts and the joint aim can often help eliminate numerous obstacles already at the beginning of a project.

## Attachment – general questionnaire

### Evaluation of innovation projects of the public administration by industrial experts

*Survey on the implementation for the industrial company XYZ*

Organization	Project name	Progressive abstraction	Innovative character 1 = highly innovative 5 = no innovation	Usability of the approach in the industrial company 1 = always usable 5 = not usable
<i>Information on the public administration's enforcing authority</i>	<i>Project name of the public administration's project</i>	<i>Short description of the core approach of the public administration's project</i>	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
			<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
			<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5

Information on the criteria on whose basis the public administration's projects up for evaluation of were chosen.

Address for the delivery of the completed questionnaires as well as a contact possibility for queries.

Thank you for your time and support

*Figure 1: General questionnaire*

*Source: self-made production*

## Attachment – evaluation form and potential questions

### Evaluation form

Thank you for taking a couple of minutes to fill out this evaluation form. Only if you voice your opinion and criticism we can improve the implementation process together. Thank you!

Name of the implementation project	Question and evaluation	Evaluation 1 = strongly agree 4 = strongly disagree
<i>Project name</i>	Do you see an overall improvement in the industrial company due to the implementation process?	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
	Were you sufficiently informed about your role in the implementation process?	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
	Do you consider the relation between effort and result in the industrial company adequate?	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
	Would you again start such an implementation process for the identification of potential innovation approaches and their utilization in your company?	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
	Do you see this as the most efficient way to utilize attractive	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4

	approaches of the public administration for an industrial company?	1	2	3	4
	Will you take part in another implementation process?	O	O	O	O
		1	2	3	4
Comments, suggestions for improvements:					

Figure 2: Evaluation form - example

Source: self-made production

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# PROCEDURAL LABOUR LAW STUDIES WITH A FOCUS ON ACTIVE LEARNING

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## Abstract

We introduce two innovative techniques used to promote a more active approach to learning, with respect to the Procedural Labour Law course subject. On the other hand, audiovisual practical materials enabled students to be virtually present at courts and extrajudicial conflict-resolution hearings. On the other, a collective interview was used as a work-group technique, in which the students presented prepared questions to a panel of experts in labour law and social jurisdiction. The experience was continued and improved over two academic years, with very positive results for the students, promoting learning as a constructive and participatory process, and not merely a receptive one, allowing them to more easily acquire objective information and knowledge of the law and to rationalise this information from a critical standpoint through a better understanding of the underlying socio-political situation. The students were highly motivated, involved and collaborative, both with the teacher and with their peers, and learned to work autonomously, as the protagonists in the resolution of case studies. The approach was also highly satisfactory for the teacher, whose feeling of professional worth was enhanced through learning to teach and teaching to learn.

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**Keywords:** Active learning, virtual practical experience, panel of experts, collective interview

## Introduction:

University students require an education in which theoretical and practical aspects of their chosen area of study are presented in a complementary manner. Thus, in law degree courses, the teacher should introduce them to situations of the socio-legal reality in which future professional activity will take place. As part of any Bachelor's or Master's degree course in which Procedural Labour Law is taught, it is of fundamental importance for students to carry out practical activities to prepare them to defend and represent the interests of workers in the judicial field of labour conflict resolution, complementing theoretical study and achieving the skills necessary for the future exercise of professional activity.

In order to create this very necessary connection between practical and theoretical training, in an area of the law that is more commonly associated with rote learning, a group of professors from the Department of Labour and Social Security Law at the University of Granada (Spain), teaching at the School of Labour Sciences of the same university, have introduced changes in teaching methods, consisting of presenting case studies supported with practical audio-visual materials and conducting a collective interview with a group of experts in the field of social jurisdiction.

These actions are sponsored by the Vice Presidency for Academic Affairs and for Teaching Staff at the University of Granada, which in the last three academic years has contributed to the financing of various Innovation and Teaching Practices (ITP) projects, allowing us to advance, refine and update our teaching materials, which as a result of the continual and extensive legislative reforms implemented in recent years in the field of Labour

and Social Security and its related procedural rules, have become outdated and of reduced academic validity.

These ITP projects could not have been carried out without the generous collaboration of labour law professionals from fields such as the administration of justice, the Employment Ministry of the Andalusian regional government, trade unions, business associations from the province of Granada and elsewhere in Andalusia, lawyers and employment consultants. These skilled professionals allowed us to learn from their experience and daily work, sharing their activities, exchanging views and recounting their experiences regarding the resolution of labour conflicts, both judicial and extrajudicial, and regarding advice and management in labour relations.

After the validity of the method was confirmed by the excellent results obtained in the previous academic year, it has now been developed significantly, expanding and improving the possibilities of audiovisual resources for teaching and learning, through the recording of judicial case studies. These go beyond mere hypothetical situations, involving the student in the practical resolution of conflicts, and offering the assistance of experts in the field, who propose solutions for the students to consider.

This virtual practical experience represents a more active form of educational communication and enables the future professional to visualise real situations of social conflict and their legal solutions, proposed by competent practitioners in parallel with the theoretical explanations offered in the classroom. This new teaching methodology facilitates independent work and students' active involvement in the learning process, thus reinforcing the professional skills, as is the aim of the new European Higher Education Area (Delgado-García, 2006; De-Miguel Diaz 2006, Blanco-Fernández 2009).

#### **Aims:**

The current teaching situation, with the adoption of new university curricula within the framework of the European Higher Education Area and the implementation of the European Credit Transfer System, highlights the need to provide students and professional trainees with a broad-based education, with mandatory practical credits. However, teachers are well aware that it is no easy matter to organise and carry out practical activities that are truly beneficial, in areas of interest to future employment consultants, lawyers and labour-law experts, in collaboration with labour courts and dispute resolution tribunals, whether these activities are created by administrative decision or through a collective agreement.

Problems of timetabling, travel arrangements, authorisations, student numbers, etc., often hamper this task, and it is even harder to achieve for various persons simultaneously, at the times determined by the curriculum for the teaching of certain subjects. Thus, the process is, if not impossible, certainly very complex and sometimes of little value to students. In view of these circumstances, and realising the time and effort involved, and with the experience of previous years of having accompanied our students to the workplaces of judicial and administrative bodies, we considered the possibility of reproducing, in the classroom, practical cases, subject to prior scripting, recording and technical editing (Moya-Amador, Serrano-Falcón & Tomás-Jiménez, 2011; Moya-Amador & Serrano-Falcón, 2001 and 2012).

This idea has been perfected and implemented during the present year, with further recordings of experts, during sessions in which they were interviewed by the students. In the conviction that it is essential to approach the real world to the classroom, our goal in this project was to complement the traditional method of teacher-originated theoretical explanations with other instruments or means of teaching. In the present-day academic context, the natural course to take is to make use of the potential offered by new technologies, which are now firmly established in all areas of society.

**General content:**

The learning process based on students reading, supplemented by theoretical explanations from the teacher, can be greatly enriched by the contribution of experts in professional practice, such as judges, judicial clerks, labour lawyers, employment advisors, conciliators from the Centre for Mediation, Arbitration and Conciliation (CMAC) and participants in the Andalusian Extra-Judicial Labour Dispute Resolution System (SERCLA). This contribution was achieved using the following tools and innovative techniques:

\* Using audiovisual media in the classroom, practical cases were studied using recordings made in labour courts and related administrative services in Granada and in the SERCLA office in the same province, with the corresponding authorisation from the court authorities (the President of the High Court of Justice for Andalusia, Ceuta and Melilla) and from the non-judicial authorities and with the consent of all parties involved. The recording sessions were based on scripts prepared in accordance with the learning focus determined by the teachers. Thus, the practical cases presented are fictitious, in order to respect rights to privacy and to personal image. The preparation of these cases was complex, due to questions of schedules and the large number of professionals involved, both inside and outside the university (30 people). All concerned provided their skills, effort and enthusiasm, in the belief that this activity would produce useful, original and innovative material.

\* When the subject curriculum had been presented and studied, in the latter part of the academic year we organised a conference with the professionals who had taken part in the recordings. This event was divided into two parts: first, a panel of experts; the professionals – all highly qualified and with long experience – presented an overview of their specialised field. The students derived full benefit from this, having already studied the issues from both theoretical and practical standpoints, and having observed the court sessions and conciliation proceedings. Another important aspect that reinforced the learning process is that the experts in question, previously, had been present in virtual form in the classroom, throughout the year, as participants in the recordings, contributing their professional experience. Now, however, and for the first time, the students could see them in person and ask questions, in a different context, that of the auditorium of the School of Labour Sciences.

\* The second part of the conference took the form of a collective interview, as a group work technique, in which the students asked questions that had been previously considered and developed. This activity required significant involvement by the students and communication with the teacher, because some of the questions, especially the ones with practical implications, had arisen during the year when a particular issue was addressed. In each group, one student was responsible for noting down a list of practical questions for the professionals, during the months prior to the conference. This list was then completed by the teacher, so that the experts' answers would provide a complete overview of the subject.

This experience was a new one, and satisfactory for all concerned: the professionals who were interviewed; the subject teacher and organiser of the activity; and the students, who voluntarily offered their opinions and suggestions for improvement. This occasion was an end of year bonus for us all, and I thank all who made it possible, especially my students.

**Method and Materials:**

The case study, using audiovisual material, is an examination of a practical situation. The students analyse certain facts and incidents, and information on intentions and values, enabling them to assimilate the elements that give the situation meaning. As well as reading and understanding the applicable law, clarifying doubts and complementing the relevant doctrinal and jurisprudential study with the teacher, the students can see how in a practical situation a worker's claim against the employer is presented and addressed and the possible solutions that are offered by the judge or mediator. Such situations include cases of dismissal (Fig. 1), discrimination in the workplace (Fig. 2), the rights of the widow and children

following the death of a worker in an industrial accident (Fig. 3) and unilateral changes by the employer to work hours (Fig. 4).



*Fig. 1. CMAC conciliation following claim for unfair dismissal*



*Fig. 2. Protection of fundamental rights and freedoms*



*Fig. 3. Social Security proceedings*



*Fig. 4. SERCLA mediation of a labour conflict*

In the legal field, case studies, based on written materials, are commonly used. However, the use of videos, with recordings of case studies situated in real locations and with the corresponding professionals in each area of labour conflict reality, enables a more direct impact on students, by means of the image presented, thus enhancing students' perceptions, encouraging them to reconsider the facts in question and the underlying legal concepts, and expanding their contribution beyond the learning of laws and textbook data.

An important advantage that should be emphasised is that this technique can be used by students in their personal study time and also by the teacher in the classroom. Recordings of different cases can be observed while the necessary theoretical explanations and detailed explanations are given, so that students acquire an understanding that is both broad and deep of the different systems of labour-dispute resolution.

Students can be virtually present, while also receiving input from the teacher, at courtrooms, court clerks' offices and extra-judicial dispute-resolution proceedings, such as CMAC and SERCLA, without the difficulties associated with organising such activities, whether in class time or outside it, such as scheduling, student numbers, questions of space and the need to travel to judicial and administrative premises.

To facilitate the students' work, they were provided, together with the recordings, with theoretical and practical written materials for each situation: claims forms, statements by the parties, judicial rulings, the court clerk's documents, conciliation forms, minutes of the conciliation and mediation proceedings, etc., for each of the case studies or recordings, and the work plans/questionnaires to be implemented. Eight such learning units were prepared.

**The procedure adopted for these classes was as follows:**

1. Presentation of the case, using audiovisual materials, together with the corresponding work plan.
2. Time for group work (recommended during class sessions, in small groups, and also outside class).
3. Each group presented its findings on the case, highlighting significant aspects and the theoretical issues reflected in the case study. The teacher then assessed the findings and contributions of each group and concluded the case, completing, compiling and reviewing the overall question.
4. To complete the academic year and to review the entire subject, we organised the First Conference on Procedural Labour Law: Professionals in the Classroom, which was held in the School of Labour Sciences, to study and discuss the implementation of Act 36/2011, of 10 October. This conference enabled students to ask questions about problems of a practical nature arising in their preparation of the case studies,

addressing these questions to the following participants: a judge from the Labour Chamber of the High Court of Justice of Andalusia, Ceuta and Melilla; a labour judge from the Granada High Court; a court clerk; and a Social Security lawyer.

<p><b>I JORNADAS DE ESTUDIO Y DEBATE SOBRE LA APLICACIÓN DE LA LEY 36/2011, DE 10 DE OCTUBRE, REGULADORA DE LA JURISDICCIÓN SOCIAL</b></p>	<p><b>PANEL DE EXPERTOS</b></p>
	<p>17:15 Hs. PECULIARIDADES EN EL DESARROLLO DEL ACTO DE LA VISTA ORAL EN EL PROCESO LABORAL D<sup>ña</sup>. Milagrosa Velaístegui Galisteo. Magistrada del Juzgado de lo Social número CINCO de los de Granada</p>
<p>Universidad de Granada Facultad de Ciencias del Trabajo Salón de Actos, 21 de mayo de 2013. Asistencia gratuita</p>	<p>17:35 Hs. PROCESOS EN MATERIA DE SEGURIDAD SOCIAL D. Francisco Fuentes Jódar. Letrado de la Seguridad Social. Actualmente Director Provincial del Instituto Nacional de la Seguridad Social de Granada</p>
<p><b>PROFESIONALES DEL PROCESO LABORAL EN EL AULA</b></p>	<p>17:55 Hs. TRAMITACIÓN Y RESOLUCIÓN DEL RECURSO DE SUPPLICACIÓN. D. Jorge Luis Ferrer González. Magistrado de la Sala de lo Social del Tribunal Superior de Justicia de Andalucía, Ceuta y Melilla.</p>
<p>En el marco del PID: EL VIDEO DIDÁCTICO PARA LA FORMACIÓN EN LA SOLUCIÓN JUDICIAL Y EXTRAJUDICIAL DE CONFLICTOS SOCIO-LABORALES (ref. 12/117)</p>	<p>18:15 Hs. LA EJECUCIÓN DE SENTENCIAS Y OTROS TÍTULOS EJECUTIVOS. EN ESPECIAL LA EJECUCIÓN FRENTE A LAS ADMINISTRACIONES PÚBLICAS. D<sup>ña</sup>. María Luisa Mellado Ramos. Secretaria Judicial de la Sala de lo Contencioso-administrativo del Tribunal Superior de Justicia de Andalucía, Ceuta y Melilla.</p>
<p><b>INAUGURACIÓN</b></p>	<p>18:35 Hs. Descanso.</p>
<p>17:00 Hs. Bienvenida D. Pedro Antonio García López. Decano de la Facultad de Ciencias del Trabajo de la Universidad de Granada</p>	<p><b>ENTREVISTA COLECTIVA</b></p>
<p>Presenta y modera D<sup>ña</sup>. Rosa Moya Amador. Profesora de Derecho del Trabajo y de la Seguridad Social de la Universidad de Granada</p>	<p>19:00 Hs. Preguntas previamente trabajadas y elaboradas por los alumnos. 21:00 h. Fin de la jornada Coordinación técnica y logística: Antonio M. Bustos Sánchez, Oscar Díaz Cantos y Arantxa M<sup>a</sup> Rodríguez Morente Dirección y Coordinación académica: Rosa Moya Amador</p>
	<p>Más información: <a href="mailto:rmoya@ugr.es">rmoya@ugr.es</a>.</p>

Fig. 5. Conference programme



Fig. 6. The experts interviewed by the students

## Results:

This initiative led to a considerable improvement in the students' academic performance, by heightening their motivation and involvement in the activities proposed, enabling them to better assimilate the subject contents, by taking an active role in learning, as future professionals in the field of labour law, representing parties in the resolution of labour disputes. Relationships between teachers and students and among the students themselves are strengthened by their collaborative work on parallel activities such as debates, participation in class and group work, and thus group dynamics are enhanced.

These teaching techniques promote a more active, participatory style of learning in the classroom; it is a personalised approach that encourages students to work independently, although with the teacher's supervision when necessary. This greater involvement means that



students work consistently and feel that what they do is useful for their professional education, makes them more aware of current socio-legal problems and teaches them to interpret the social and economic realities in which they will work. In consequence, the process is more successful and pass rates are higher.

**Conclusion:**

The technique described was found to be a valid teaching innovation, one that is feasible, useful and incorporates new information and communication technologies. It provides a more complete learning process, which is active, personalised, collaborative, interconnected with the group and with the teacher, and more independent. The surveys of satisfaction and the evaluation results achieved reflect the beneficial outcome of this experience, involving three administrations – the administration of justice, the Andalusian Ministry of Employment and Granada University – and thus three outlooks from which to study the solution, judicial or extrajudicial, to socio-labour conflicts.

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# EDUCATION FOR SUSTAINABLE DEVELOPMENT: AN EVALUATION OF THE NEW CURRICULUM OF THE FORMAL PRIMARY EDUCATION IN BANGLADESH

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## Abstract

The social purposes of education are long term and oriented towards the construction and maintenance of a sustainable future. Primary education must receive a special attention in developing nations because it plays a vital role in fostering basic intellectual abilities such as literacy that are crucial to success. In Bangladesh the newly introduced curriculum of the primary education is a step ahead to achieve the vision of education for sustainable development. Thus the paper tries to find out what are the prospects of the new curriculum of primary education in Bangladesh as Education for Sustainable Development (ESD) and its relative problems as well. The paper also tries to find out what necessary measures to be taken to make an effective ESD curriculum for primary education in Bangladesh.

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**Keywords:** ESD, primary education, curriculum

## Introduction

Education is one of the key elements of human asset. It is also one of the principal sources of increased economic growth, development and enhanced welfare of an individual and a household in the process of economic transformation. Increased labor productivity, effective use of land and other physical assets, and improved socio-economic empowerment are three important routes through which education can contribute to economic development. On the other hand, education can also lessen the burden of poverty — one estimate for Bangladesh reveals that households without any formal education have about six time higher poverty incidence than those who have access to education (Rahman, Kabir, and Alam, 2005).

Because of all this, educational attainment is considered to be the most important indicator of development. Right to education is a fundamental human right. However, the importance of primary education cannot be overstated because it creates the literacy base of a nation (Rahman et al, 2003). Therefore, in most developed countries primary education is considered to be more important than higher education. In all the least developed countries including Bangladesh, it is also considered to be an important element of social progress and economic development. Primary education has been made universal and compulsory, and there is a large-scale national campaign for enrolling all school-aged children at primary educational institutions.

Education is a life-long process for the betterment of human well-being. Education for sustainable development (ESD) is fundamentally about the links between the awareness of the human as a whole in the nature and its supporting social systems and the health of the planet which we inhabit with responsibilities of present and future world. Amartya Sen to group of educationalist in New Delhi on 2 January 1999 said “In developing nations, a plan for sustainable development must address the issue of primary education because it plays a significant role not only in expanding further educational opportunities, but also in fostering basic intellectual abilities such as literacy that are crucial to success in a world where power is closely linked with knowledge”.

A number of researches (UNESCO, 1984; Tietjen, 2003; BANBEIS, 2005; Rahman, Kabir, and Alam, 2005; TIB, 2008; Rabbi, 2008; UNICEF, 2009) have been done on primary education which identifies several challenges of primary education in Bangladesh. A very few (Chowdhury, 2005; Shohel, 2006; Stanfield, 2010) have been done on primary education which identifies several challenges of the curriculum of formal education to be effective for implementing education for sustainable development in Bangladesh. But the new curriculum of the primary level as introduced in 2013 has given us an optimism to achieve the vision of education for sustainable development.

### **Objectives**

The paper tries to find out what are the prospects of the new curriculum of formal primary education in Bangladesh as Education for Sustainable Development (ESD) and the relative problems of structuring and placing it in the national curriculum. Hence, the study has been implemented with the following objectives:

1. To find out what are the prospects of the new curriculum of primary education in Bangladesh that reflects Education for Sustainable Development.
2. To identify what are the relative problems of structuring and placing Education for Sustainable Development (ESD) in the national curriculum of the primary education in Bangladesh.
3. To find out what necessary measures to be taken to make an effective ESD curriculum for primary education in Bangladesh.

### **Methodology**

The present study is an exploratory one and aims to respond to the research questions of qualitative nature. In this study, the following methods of exploratory research are used:

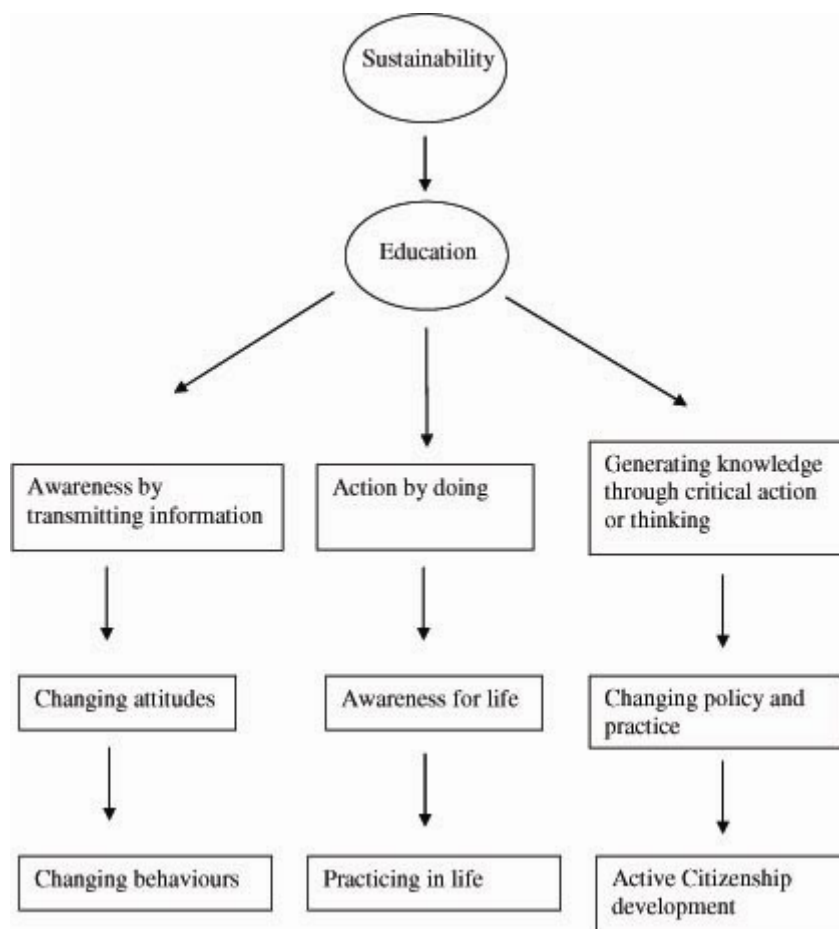
1. Secondary data analysis
2. Content Analysis

### **Sustainable development and education**

Education is the key to any sustainable development program - "Education ... should be recognized as a process by which human beings and societies can reach their fullest potential. Education is critical for promoting sustainable development and improving the capacity of the people to address the environment and development issues" (UNCED 1992: Agenda 21).

How can education play a role in promoting sustainable development (SD)? Different theories (Shohel and Howes, 2006) have been used, implicitly or explicitly, in answering this question, and we can group them into three main models:

1. education about sustainable development;
2. education for sustainable development;
3. critical education towards sustainable development



*ESD Model (Source: Shohel, 2006)*

In brief, the first model, education about sustainable development, provides awareness which generates changes in attitude and then in behavior. The second model, education for sustainable development, focuses on actions which change attitudes and build awareness for life and then so develop lifelong practice. The third model, critical education towards sustainable development, emphasizes generating knowledge through critical action, and the development of active and critical citizenship. (Wikipedia)

### **Primary education in Bangladesh**

Primary education has been a priority in Bangladeshi politics since independence from Pakistan in 1971. Though initially the scenario was bleak; after the 1990 World Conference on Education for All (WCEFA) the primary education programs in Bangladesh dramatically improved (BANBEIS, 2005). Following this conference, donors in Bangladesh invested in the education sector much more heavily and NGOs increased their involvement in assisting Bangladesh government in meeting its primary education goals. (BANBEIS, 2005)

Later Bangladesh became one of the signatories to the UN Millennium Declaration in 2000, and has committed to eight Millennium Development Goals that asserts a vision for the 21<sup>st</sup> century (Burns et al, 2003:23). Bangladesh also promised to implement the MDGs roadmap by 2015. The MDG-2 targets for 'Achieving Universal Primary Education' are claimed to be on track in Bangladesh, showing remarkable achievements in terms of net enrollment rate in primary education 73.7% in 1992 to 87% in 2005 and primary education completion 42.5% in 1992 to 83.3% in 2004 (Titumir, 2005:120).

## **The Role of formal education in sustainable development**

Formal education is provided for the majority of children and young people in Bangladesh. The Gross Enrolment Rate (GER) is 96 per cent according to World Bank statistics; Bangladesh has increased public spending on education by more than 50 per cent since 1990 and spends 45.1 per cent of it on primary levels. In this way formal education is making a significant contribution to achievement of universal primary education and to the Millennium Development Goals.

However, in terms of sustainability, the picture is not satisfactory. Researches (Shohel & Howes, 2006) show that the formal education represents the model of education about sustainability; the results of which are rarely implemented in real life. Instead, this model emphasizes the theoretical aspects of knowledge. Education in this form is often influenced by a political agenda based on and supporting the power of central state institutions. In most cases, the curriculum and organization of the school is not based on a democratic process; rather the school is run by powerful people for weak subordinates. As a consequence, the formal school system finds it difficult to adapt to changing priorities, or to experiment with alternative approaches.

The curriculum of formal primary and high school education in Bangladesh is highly centralized. An USAID report (2002) says:

‘A critical feature of the formal school system- at least at the primary level- is the lack of input from the broad education sector, including parents, community leaders, and students, as well as teachers and administrators, at every level of the system’ (p.10).

Hossain (1997) also notes that the ‘Bangladesh school education system is left with an extremely centralized, non-participatory, non-transparent and bureaucratic educational administration, management and planning system. The system appears to be quite inadequate for the challenges of achieving the goal of education for all, including UPE, in Bangladesh’ (p.75).

In practice, there is no chance for teacher to offer something beyond or outside the curriculum. The formal school curriculum as it stands has little to offer in relation to environmental and sustainable development.

The un-sustainability of development has an impact on schooling, and thereby on individual development. That is why in countries like Bangladesh, many children still have no chance to attend even low-quality primary schools. Dropout and failure rates are alarming; many leave semi-literate, soon to relapse into illiteracy (Rahman, Kabir, and Alam, 2005). Given that the result of such failure is often an exclusion from social processes, such poor quality education is part of a vicious circle of un-sustainability.

As a developing country, Bangladesh faces particular challenges in educating its citizens for sustainable development. It is facing multiple developmental challenges, among them most crucial problems are as follow (Howes, 2006):

- Extreme Population Density
- Mass Poverty and Illiteracy
- Unstable Political Situation
- Corruption
- Fragile Ecology
- Limited Natural Resources

Strikingly, most of the literature linking education and sustainability is drawn from Western contexts, and of course there are major challenges for sustainability facing these societies, but they are likely to be different from those facing developing countries. Given the developmental challenges mentioned earlier in respect to countries such as Bangladesh, any list of actions for sustainability is likely to emphasize meeting basic needs and improving the quality of life, rather than dealing with problems associated with mass consumption for

example. Table-1 bellow illustrates the range of issues and actions that are likely to be prominent in this context:

Priority issues	Actions for sustainability
Population growth	Emphasizing disadvantages of early marriage and more children
Food insecurity	Using organic fertilizers
Widespread illiteracy	Education for All
Restricted access to loans	Expansion of micro-credit programs and skills development
Lack of agency	Citizenship awareness
Corruption	Moral and systems development
Shortage of energy	Saving energy (oil, gas and electricity)
Deforestation	Social forestation
Pollution	Pollution control
Unequal status of women	Women's rights and education

Table 1, (Source: Shohel, 2006)

## Existing ESD model in Bangladesh

### Formal Education about Sustainable Development – links to Model 1

Shohel and Howes (2006) have mentioned that formal primary education of Bangladesh has generally represents the model of education about sustainability, with several steps coming between the educational experience and practical implementation by young people. Controlled and influenced by central state institutions, particularly through a centralized curriculum (Robinson 1999) makes it difficult for formal schools to adapt to local priorities, or to experiment with alternative approaches appropriate to their social and environmental context. In addition, the formal education system is very rigid (Shohel & Howes, 2006) with limited provision for ESD curricula. Formal education fails to relate knowledge and action.

### Education for and towards Sustainable Development – Models 2 and 3

Given that the formal education system has never addressed the needs of the whole population in Bangladesh, there has been, since the 1960s, a flourishing non-formal education sector engaging in a wide range of educational and training activities organized outside the formal school system (Shohel 2004). In this trend, innovative learning methods are aimed at the development of practical skills, including matters of health, sanitation, literacy, to be applied in real life situation. This now accounts for approximately 8 per cent of primary school enrolment (Ahmed et al 2007) – higher in geographically remote areas and among socio-economically disadvantaged groups. Non-formal education is based on the pedagogy from the ideas of transformative learning and participatory democracy (Shohel 2008, Schugurensky and Myers 2003). In relation to sustainable development, non-formal education facilitates public involvement in resource management and policy formation.

### Prospect of the new curriculum (2013) of primary education of Bangladesh

In 2013, the National Curriculum and Textbook Board (NCTB) of Bangladesh has introduced a new curriculum and changed the entire textbooks from Class I-V ([www.nctb.gov.bd](http://www.nctb.gov.bd)). So far, our centralized national curriculum does not emphasize on ESD or include the issues of sustainability in its curriculum as researches shows. This is the first time, the present curriculum at least tries to focus on the issues of ESD. In the Preface of the textbooks, the Chairman of the National Curriculum and Textbook Board, Dhaka says, "Topics and themes have been selected in a way that would not only help students address the needs of real life situations, but would also inculcate humanistic values in them as well as broaden their mental horizon." In the following table, we can see the reflection of these objectives and goals of the Textbook Board which shows inclusion of wide variety of subjects regarding ESD in the books prescribed by NCTB from Class I-V.

Class	Books	Topics/Lessons
One	Amar Bangla Boi	Lesson 3, 46, 47, 52
	English For Today	
	Primary Mathematics	
Two	Amar Bangla Boi	Lesson 1, 3, 5, 6, 8, 11, 12, 13
	English For Today	
	Primary Mathematics	
Three	Amar Bangla Boi	Lesson 1, 3, 8, 12, 14, 21
	English For Today	Unit 3-Lesson 3, 4, Unit 5-Lesson 1, 2, Unit 10-Lesson 1, 2, 3, 4, Unit 11-Lesson 1, 2, 3, 4
	Primary Mathematics	
	Bangladesh & Global Studies	Chapter 1: Our Society & Environment, Chapter 2: Let Us Live Together, Chapter 3: Our Rights & Responsibilities, Chapter 4: Different Social Occupations, Chapter 5: Human Qualities, Chapter 6: Development Works in Family & School, Chapter 7: Environment Preservation & Development, Chapter 9: Bangladesh Our Country, Chapter 12: Population of Bangladesh
	Primary Science	Chapter 1: Our Environment, Chapter 2: Living and Non-living, Chapter 3: Different Types of Matter, Chapter 4: Water for Life, Chapter 5: Soil, Chapter 6: Air, Chapter 7: Food, Chapter 8: Health Rules, Chapter 9: Energy, Chapter 10: Introduction to Technology, Chapter 11: Information & Communication, Chapter 12: Population & Natural Environment
	Religion & Moral Studies	<p><b>Islam &amp; Moral Education:</b> Chapter 2: Ibadat (Cleanliness &amp; Purity, Wadu, Cleanliness of Hands and Feet), Chapter 3: Akhlaq (Obedience to Parents, To behave nicely with classmates, Exchanging Salam, To behave nicely with guest, To serve people, Show mercy to the living beings, To speak the truth)</p> <p><b>Hindu Religion &amp; Moral Education:</b> Chapter 4: Fellow Feeling, Chapter 5: Modesty, Decency and Priority, Chapter 6: Honesty &amp; Truthfulness, Chapter 7: Good Health &amp; Exercises, Chapter 8: Patriotism</p> <p><b>Christian Religion &amp; Moral Education:</b> Chapter 6: Ten Commandments of God, Chapter 7: Sin, Chapter 13: Mother Teresa The Model Service, Chapter 16: Earthquake</p> <p><b>Buddhist Religion &amp; Moral Education:</b> Chapter 3: Daily Work and Salutation, Chapter 5: Moral Education: Grihisil, Chapter 7: Sub-division of Work, Chapter 12: Inter Religion Amity</p>
Four	Amar Bangla Boi	Lesson 1, 5, 9, 10, 12, 14, 16, 19, 21, 22
	English For Today	Lesson 6, 7, 9, 12, 13, 20, 25, 26,
	Primary Mathematics	
	Bangladesh & Global Studies	Chapter 1: Our Environment & Society, Chapter 2: Togetherness and Cooperation in the Society, Chapter 3: Ethnic Groups of Bangladesh, Chapter 4: The Rights of Citizens, Chapter 5: Social and State Resources, Chapter 6: Dignity of Various Occupations, Chapter 7: Tolerance of Others Opinion, Chapter 8: Moral and Social Qualities, Chapter 9: Development Works of the Locality , Chapter 10: Disaster & Disaster Management, Chapter 11: Population of Bangladesh
	Primary Science	Chapter 1: Living bodies & Environment, Chapter 2: Plants & Animals, Chapter 3: Soil, Chapter 4: Food, Chapter 5: Healthy Lifestyle, Chapter 7: Natural Resources, Chapter 8: Universe, Chapter 9: Technology in our life, Chapter 10: Weather & Climate, Chapter 11: Security of Life & First Aid, Chapter 12: Information in our life, Chapter 13: Population & Natural Environment
	Religion & Moral Studies	<p><b>Islam &amp; Moral Education:</b> Chapter 2: Taharat, (Purity), Wadu (Ablution), Gusal (Taking bath)Chapter 3: Al-Akhlaq (To respect Parents, To honour teachers, To honour elders and love younger, To behave well with the</p>

		neighbours, Nursing the patients, Speaking the truth, Keeping fulfillment promise, Not to be greedy, Not to waste, Not to backbite <b>Hindu Religion &amp; Moral Education:</b> Chapter 4: Respect & Patience, Chapter 5: Sacrifice & Liberality, Chapter 6: Keeping a Promise & Devotion to our Elders, Chapter 7: Maintenance of Health & Posture, Chapter 8: Patriotism <b>Christian Religion &amp; Moral Education:</b> Chapter 6: Ten Commandments of God, Chapter 7: Sin, Chapter 11: Confession, Eucharist and Confirmation, Chapter 12: Abraham, the Father of the Faithful, Chapter 16: Flood and Drought <b>Buddhist Religion &amp; Moral Education:</b> Chapter 6: Right & Wrong Activities, Chapter 11: Religious and Social Co-existence
Five	Amar Bangla Boi	Lesson 1, 3, 6, 9, 20,
	English For Today	Lesson 7, 9, 16, 20, 21, 23, 24, 26, 27
	Primary Mathematics	
	Bangladesh & Global Studies	Chapter 4: Economy of Bangladesh: Agriculture & Industry, Chapter 5: Population of Bangladesh, Chapter 6: Climate & Disaster, Chapter 7: Human Rights, Chapter 8: Our Duties & Responsibilities, Chapter 9: We all are equal, Chapter 10: Democratic attitude, Chapter 11: Gender equality, Chapter 12: Some minor races and their cultures in Bangladesh
	Primary Science	Chapter 1: Life & our Environment, Chapter 2: Environment Population, Chapter 3: Water for Life, Chapter 4: Air, Chapter 5: Matter and energy, Chapter 6: Food for good Life, Chapter 7: Healthy lifestyle, Chapter 9: Technology in Our Life, Chapter 10: Information in our life, Chapter 11: Weather & Climate, Chapter 12: Climate Change, Chapter 13: Natural Resources, Chapter 14: Population & Natural Environment
	Religion & Moral Studies	<b>Islam &amp; Moral Education:</b> Chapter 2: Ibadat, Purity-Cleanliness, Cleanliness, Chapter 3: Service to the creation, Patriotism, Forgiveness, To co-operate in performing good deeds, Honesty, Service to the parents, Dignity of labour, Human Rights, Environment, Natural Disaster <b>Hindu Religion &amp; Moral Education:</b> Chapter 1: Ishvara and Service to Living Beinga, Chapter 4: Singularity of Ishvara, Religious Equality and Harmony, Chapter 5: Etiquette and Tolerance of Others Views, Chapter 6: Non-malice and Benevolence, Chapter 7: Keeping Health & Yoga and Postures of Sitting Chapter 8: Patriotism <b>Christian Religion &amp; Moral Education:</b> Chapter 6: The meaning of Ten Commandments, Chapter 10: Mission of the Church, Chapter 12: Ruth, Chapter 13: Nelson Mandela, Chapter 15: Tornado & Cyclone <b>Buddhist Religion &amp; Moral Education:</b> Chapter 6: Karma and Its Consequences, Chapter 11: Religion and Patriotism

Table 2, Source: NCTB 2013

Thus the new curriculum has introduced extend of priority issues for sustainable actions that we have discussed earlier in Table 1.

‘English For Today’ textbooks have been developed to help students attain competence in all four language skills in English through meaningful and enjoyable activities. Grammar points and planned activities to develop students’ competence in all four language skills have been presented within contexts in a systematic and graded way.

The textbooks of Mathematics ensure that the children get adequate mathematical understanding and skills. Special attention has been given to make the contents of the book, as far as possible, plain and lucid to the tender aged learners. The salient feature of the new book is that it is learner-centered and activity-based. To make the book attractive to the young



learners, it is printed in four colors and varieties of pictures are included in it. The book encourages that the students will learn through games.

As for the science education, the attributes of the revised curriculum is to maintain consistency among different branches of science as well as between science and technology. Special attention has been given to create more interest, curiosity and motivation among the children by using improved quality of paper, four colored pictures/diagrams in the books.

The textbooks of Bangladesh and Global Studies have included the most diverse range of topics related to ESD. The society and environment of Bangladesh, tradition, culture, the history of liberation war, basic needs, children right, duties and responsibilities of children, sense of cooperation and compassion toward all walks of people of the society, attaining the qualities for becoming good citizens of the society, being respectful to the culture and occupation of others, proper use and maintenance of resources, social environment and disaster, population and human resources all these issues have been introduced in the book in the context of Bangladesh. Issues like how children can manage unfavorable conditions or disasters have introduced. These are obviously critical for promoting sustainable development and improving the capacity of our future generation to address the environment and development issues. Besides, a number of new topics have been included to create sense of acceptability and develop a sense of harmony in the minds of the children for the people of all walks of the society, professionals, rich-poor, and children with special needs. Security issues have been provided and constitution has been followed in the usage of the term “Ethnic Minority” in these books.

All most all the books of different religion have included the topics related to moral education, cleanliness, patriotism, forgiveness, good deeds, honesty, service to the parents and elderly, dignity of labor, human Rights, environment, natural disaster etc. This learning would obviously awaken the children’s intellectual, social and moral values.

Moreover, if we carefully analyze the curriculum from class I-V, we can easily find that there is a consistency and repetitive inclusion of ESD materials among the lessons of different classes. If we consider the assessment process, we see more objectives tests; project and practical works which will help to make potential human resources.

### **Problems of structuring and placing ESD in the national curriculum**

In reality, to introduce an ESD based curriculum is really difficult since nations need to clarify whether their educators are being asked to teach about sustainable development or to change the goals and methods of education to achieve sustainable development. It is like creating another “add on” subject, (e.g., Sustainable Development, Environmental Education, or Population Education) or to reorient entire education programs and practices to address sustainable development.

ESD by nature is holistic and interdisciplinary and depends on concepts and analytical tools from a variety of disciplines. As a result, ESD is difficult to teach in traditional school settings where studies are divided and taught in a disciplinary framework. So, in countries like Bangladesh where national curriculums describe in detail the content and sequence of study in each discipline, ESD will be challenging to implement. Education related to sustainable development is not implemented in a wide range, in both depth and breadth. Thus the following problems need to be reoriented to address sustainability.

### **Necessary steps to be taken for structuring and placing ESD in the national curriculum**

- i. The initial step in launching an ESD program is to develop awareness within the educational community and the public that reorienting education to achieve sustainability is essential.
- ii. We need to adapt reform movement that can guarantee ESD to every child in school.

- iii. Because sustainable development is hard to define and implement, it is also difficult to teach. Most of our teachers do not have any idea about ESD. So, it will require creative teachers who are comfortable and skilled at teaching across disciplines.
- iv. Education for sustainable development remains an enigma to us. Our government, ministries of education and educators has expressed a willingness to adopt ESD programs; however, no successful working models currently exist. Without models to adapt and adopt, governments and schools must create a process to define what education for sustainability is with respect to the local context. Such a process is challenging. It calls for a public participation process in which all of the stakeholders in a community carefully examine what they want their children to know, do, and value when they leave the formal education system. This means that the community must try to predict the environmental, economic, and social conditions of the near and distant future. Interactions between school and community must be encouraged as this is very influential and fruitful for students' development.  
ESD carries with it the inherent idea of implementing programs that are locally relevant and culturally appropriate. Just as any sustainable development program must take into consideration the local environmental, economic, and societal conditions, so too must ESD programs consider these same conditions. As a result, each region must create its own ESD program.
- v. Popular thinking promotes the myth that an informed society is solely the responsibility of the ministry of education. In reality, however, the ministries of environment, commerce, state, and health also have a stake in ESD, just as they have a stake in sustainable development. By combining expertise, resources, and funding from many ministries, the possibility of building a high-quality, successful education program increases. Unfortunately, we do not have this coordination.
- vi. The successful implementation of a new educational trend will require responsible, accountable leadership and expertise in both systemic educational change and sustainable development. We must develop realistic strategies to quickly create knowledgeable and capable leadership. We must find ways, such as employing the strengths model, to use existing skills.  
Two models of human resource development currently exist – in-service training and pre-service training. For initial success in ESD, both in-service and pre-service training are necessary. While the effort can begin with the current teaching professionals around the globe, it is clear that teacher education institutions need to reorient pre-service teacher education to include ESD. Teacher education programs need to produce professionals who not only teach sustainability themes but also can "pull together" the various disciplinary strands that will give their students a holistic understanding of a sustainable future and the role of individuals, communities, and nations in a sustainable world. The development of this cadre of expertise will profoundly affect how rapidly nations will begin the move toward sustainability.
- vii. Perhaps one of the greatest expenses of implementing ESD will come with providing appropriate basic education. In fact, national and local governments have spent little on ESD beyond improving basic education. Yet, effective ESD will depend on funding at both national and local levels. At the national level, financial resources must fund curriculum, administration, and teacher education. At the local level, resources must finance curriculum development and accompanying materials, as well as teacher training.
- viii. Perhaps the most difficult obstacle to address in implementing ESD is that of popularity. Because principles of sustainable development are not currently woven into daily life and governmental policy, the emergence of ESD could become an important "bottom-up" driver of community-based sustainable development. ESD

could shape and encourage behaviors and ethics that support an informed, knowledgeable citizenry that has the political will to achieve a sustainable future.

- ix. Support the incorporation of sustainable development issues using an integrated and systemic approach in formal education as well as in non-formal and informal education at all levels, in particular through the development of effective pedagogical approaches, teacher education, teaching practice, curricula, learning materials, and education leadership development, and also by recognizing the significant contribution of non-formal education and informal learning as well as vocational and work-place learning. Sustainable development is a cross-cutting theme with relevance to all disciplines and sectors.  
Experts (Shohel & Howes, 2006) divide the activities inherent in non-formal education relating to ESD into two main areas: through the curriculum, and through social action as part of the community. These could be an example for formal education system.
- x. Enhance the major contribution and key role of civil society in stimulating debate and public participation, and initiating ESD actions. Explore ways to further this involvement and commitment.
- xi. Value and give due recognition to the important contribution of traditional, indigenous and local knowledge systems for ESD and value different cultural contributions in promoting ESD.
- xii. ESD should actively promote gender equality, as well as create conditions and strategies that enable women to share knowledge and experience of bringing about social change and human well-being.
- xiii. It has been revealed in research (Shohel, 2006) that students of NGO schools are aware of their school environment since they do not like, relating to cleanliness, health and safety issues, such as dirty toilets and bathrooms, dusty benches and ceiling fans, and smells from the nearby chicken farm. So, it can be expected that since the Govt. primary schools have these facilities, like toilets, bathrooms, tube-wells or ceiling fans, the active participation of students of Govt. schools made them more aware of the value of caring for their environment.

## Conclusion

We can expect that the new curriculum of formal primary education in Bangladesh affords an opportunity for young people (and their teachers) to integrate existing cross-curricular issues such as health education, personal and social education, economic and industrial understanding and environmental education. As a result, young people of the development of environmental and political awareness leading to reflection and action at the local level. A greater realization of this potential would involve the integration of environmental education and development education with practitioner base life-skills education and training for a wide range of occupations, constituting a holistic and viable education for sustainable development. This combination is not just a content issue, but an ideological and an epistemological task which involves a locally derived empowerment process.

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# WHICH PROCESSES OF PRIVATE INSTITUTIONS FOR TERTIARY EDUCATION DESERVE A KEY FIGURE?

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## Abstract

The sector of private educational institutions in Austria is very young but growing. Despite the urgent necessity of customized and directly applicable control mechanisms there are still little knowledge and experience due to the recentness of the sector. Controlling in educational institutions has rarely been explored to this day. Up until now only the sub-areas of controlling of educational processes have been researched. Institutions which are dealing with working students have to offer special service in terms of opening hours, service quality, lectures etc. which causes higher costs and requests a high budget liability. In order to develop a customized controlling instrument for educational institutions in higher education an examination of the crucial influencing factors of private educational institutions is necessary. In further consequence, parameters, measuring criteria and key figures can be developed on this basis to create customized controlling. Aim of the following part is an intensive examination of the processes of private educational institutions. This will be used as a basis for a further evaluation of processes in order to determine the influence of particular processes in educational institutions. To reach this aim the necessary and trendsetting processes will be defined with regard to the exemplary institutions Ingenium Education and Studienzentrum Weiz.

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**Keywords:** Education controlling, processes, private Institutions

## Introduction

“Knowledge has doubled during 1800 (Napoleon) and 1900 (Wilhelm II) and it did so until 1950 (Adenauer). Then it only took 10 more years to double again. Today, this time span has decreased to a mere four years.”<sup>56</sup> Parts of our knowledge lose their value rather quickly - 50 percent of EDP-related knowledge becomes outdated and obsolete only after two years, knowledge in technology loses half of its value during the first four years.<sup>57</sup> Due to this development the importance of lifelong learning has been increasing drastically during the past years.

More and more employers view tertiary education of their employees as an investment as well as a possibility of gaining a crucial increase in knowledge. A study conducted in 2008 by the Institute for Basic Research (Institut für Grundlagenforschung) showed that 64 percent of the companies surveyed would be willing to grant their employees further training during working hours, at least 59 percent would agree to support them financially as well. In the area of tertiary education there is a clear trend towards academic tertiary education. “In Germany 13,000 beginning students took up correspondence courses in 2009, which is a plus of 18 percent.”<sup>58</sup> Ingenium Education, one of the biggest private institutions for tertiary education in Austria, was able to record a massive trend towards tertiary education in recent

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<sup>56</sup> Bartscher/ Huber 2007: p. 4

<sup>57</sup> Vahs/ Burmester 2002: p. 10

<sup>58</sup> <http://www.tagesspiegel.de/wirtschaft/karriere/fernstudium-liegt-im-trend/1713450.html>

years. From 2009 to 2012 1.500 professionals have taken up their studies with Ingenium, which is a plus of about 50 percent.<sup>59</sup>

In the field of tertiary education only a small part of the courses of studies is being offered by public universities. It is only in the areas of medicine and natural sciences that public universities still have an accordingly higher market share.<sup>60</sup>

For the largest part, lifelong learning can only be achieved through extra-occupational tertiary education offered by private educational institutions. It is of highest importance for the employees to be able to retain their jobs during their extra-occupational studies, which makes special solutions and flexible organization indispensable. Particular focus lies on a high degree of service orientation and on tailoring the education programs exactly to the wants and needs of the target group.

However, the work of privately financed educational institutions is subject to particular financial straits as they cannot draw on comprehensive public financing. Nevertheless, these institutions have to cope with students' high requirements for service and quality due to study fees. This paper will elaborate processes relevant for the installation of educational controlling, which will be evaluated on a qualitative as well as a quantitative level in order to identify the essential processes.

### **Statement of the problem & approach**

As a result of the increasing shortage of public funds, the necessary educational mandate in the area of further education will, with an upward trend, continue to be fulfilled by privately financed educational institutions. In addition to the budgetary limits of publicly financed institutions the reasons for this development lie in necessary services, which are essential for working students to successfully complete their studies in tertiary education.

### **High service requirements for private institutions**

Privately financed educational institutions are under high pressure. The expectations of the level of quality regarding fee-based programs are perceived as substantially higher than of those free of charge even though they have a disproportionately higher budget at their disposal due to government funding. Working students demand an appropriate degree of support in organizing and handling their studies as well as flexible study models.

### **Severe budget restrictions require specific controlling**

According to the study "Education at a Glance" (2009) by the OECD, one student costs the country of Austria 14,000 dollars per year, which adds up to a total amount of 64,000 dollars for four years of studies. Private households, on the other hand, are rarely willing to spend money on education. On average, Europeans invest only 20 euro per month in their (further) education.<sup>61</sup> Extrapolated to a 4-year-education this means that only 960 euro are being spent on education in total. A survey among high-school graduates in East Austria conducted by the Institute for Basic Research in 2008 showed their willingness to invest about 6,000 euro in their own education.

This scarcity of resources of the privately financed educational institutions compared to government funded educational institutions forces them to economize on their resources.

### **Controlling in educational institutions – a blank spot on the educational map**

The sector of private educational institutions is very young. Despite the urgent necessity of customized and directly applicable control mechanisms there are still little knowledge and experience due to the recentness of the sector. Controlling in educational

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<sup>59</sup> Data provided by the Management of Ingenium Education per 27 July 2013

<sup>60</sup> Cf. Schaeper /Schramm/ Weiland/ Kraft 2006

<sup>61</sup> Cf. OECD study, Education at a Glance, 2008

institutions has rarely been explored to this day. Up until now only the sub-areas of controlling of educational processes have been researched. In order to develop a customized controlling instrument for educational institutions in higher education an examination of the crucial influencing factors of private educational institutions is necessary. In further consequence, parameters, measuring criteria and key figures are being developed on this basis to create customized controlling.

### **Methodology & approach**

The subsequent approach consists of different steps. In a first step, a process tableau of the exemplary institutions is being created. These steps are based on extensive literature research as well as raw data supplied by the exemplary institutions. This is the result of a separately conducted research paper. On the basis of an analysis of the exemplary institutions “Studienzentrum Weiz“ and “Ingenium Education“ the major processes and thus main influences on private educational institutions will be determined.

Afterwards, the previously defined processes will be evaluated and the relations of the processes will be depicted, respectively. In order to do so, a point awarding system has been introduced. Furthermore, interviews with employees and management were conducted and evaluated.

### **Process analysis of tertiary education institutions**

Aim of the following part is an intensive examination of the processes of private educational institutions. This will be used as a basis for a further evaluation of processes in order to determine the influence of particular processes in educational institutions.

To reach this aim the necessary and trend-setting processes will be defined with regard to the exemplary institutions Ingenium Education and Studienzentrum Weiz. In the following chapter these two institutions will be described briefly.

Moreover, the processes have been determined with the help of the respective institutions. The principles of process management are being discussed in an excursus.

### **Display of the exemplary institutions**

This part of the paper will provide information about the Austria-based exemplary educational institutions Ingenium Education (short: Ingenium) and “Studien- und Technologie Transfer Zentrum Weiz” (short: Studienzentrum Weiz). The two institutions have approximately 1,800 students and about 400 graduates per year and are thus market leader in the field of private higher education in Austria.

Since the end of the 1990s Ingenium Education and Studienzentrum Weiz have been organizing extra-occupational studies in cooperation with the University of Applied Sciences Mittweida and the Leipzig University of Applied Sciences. Nationwide there are 14 different locations with 16 employees (12 full-time employees), 22 study program leaders and 120 lecturers who supervise 1,800 students. The institutions offer technical diploma studies in the areas of Information and Communication Science, Engineering, Industrial Engineering and Civil Engineering as well as a bachelor study program in Business Administration and an MBA in Industrial Management. The target group consists of employed graduates from BHS, who want to educate themselves further in their occupational field. Within the framework of the combination of on-site study courses and correspondence courses it is possible to accredit professional experience and previous education in order to customize and reduce the duration of the studies.<sup>62</sup>

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<sup>62</sup> Ingenium Education 2010

## Process analysis of the exemplary institutions

“Process management includes every planning, organizational and controlling measure for the target-oriented regulation of a company’s value chain regarding its objectives, costs, time, quality, innovation capacity and customer satisfaction.”<sup>63</sup> This definition from 1994 shows the importance of process management for the creation of a controlling system and therefore, from the author’s point of view, an indispensable need for an elaborate analysis of the value chain of an enterprise prior to the implementation of controlling.

## Principles of process management

“A process is a chain of coherent actions which jointly create a customer benefit.”<sup>64</sup> Main factors of processes are, on the one hand, the fact that a process consists of more than one action and that, on the other hand, these coherent actions yield a profit for external as well as for internal customers. An external customer is, for instance, the end-consumer. Regarding this paper, the end-consumer can be a participant of the courses of further training or a student. Follow-up processes or an internal department which delivers legwork can be seen as internal customers.<sup>65</sup>

The definition of processes begins with the examination of actions. The incidental actions of a company are being assorted, arranged and made comprehensible. Processes will be created from this value chain when they become structured, hence divided into sub-processes and assigned to the respective customers.<sup>66</sup> There are various approaches in literature on how to conduct this structuring – the following section will show the criteria most used in literature and considered most helpful.

“Processes occur on at least two levels, namely as a type and as an implementation.

The process type is obtained by a generic description of a process. The implementation is the realization of a process within the scope of an application.”<sup>67</sup> “The process type is defined by its input and output, functions that have to be executed and rules of synchronization. There is a relation between input and output and material and immaterial things. A function depicts the transformation from input to output. Different functions are connected through priority relations, which limit the order in which functions can be executed. Before the execution of a function preconditions need to be fulfilled, after the correct execution of a function postconditions are fulfilled.”<sup>68</sup> “A typology of processes can be conducted on the basis of different implementations or features.”<sup>69</sup> Klaus Schuderer (1996), who has often been quoted in this context, differentiates between the following features and implementations:

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<sup>63</sup> Gaitanides/ Scholz/ Vrohlinger 1994: p. 3

<sup>64</sup> Feldbrügge/ Brecht-Hadraschek 2008: p. 15

<sup>65</sup> Cf. Feldbrügge/ Brecht-Hadraschek 2008: p. 15 - p. 17

<sup>66</sup> Cf. Hirzel/ Kühn/ Gaid/ Gabler 2008: p. 25 - p. 30

<sup>67</sup> Schmidt 2002: p. 1

<sup>68</sup> Schmidt 2002: p. 176

<sup>69</sup> Gronau 2006



Feature	Implementation
level of resolution/ cf. Schuderer 1996, p. 64	corporate process – overall process – sub-process- .... - process chain – process – procedure – activity
added value/ cf. Schuderer 1996, p. 64	immediate – mediate – conditional – non-value added
object/ cf. Schuderer 1996, p. 64, Schmidt 1997, p. 11, Schwickert 1996, p. 13 et al.	idea – information – material
chronology/ cf. Schuderer 1996, p. 64	sequential – parallel – optional
determination/ cf. Schuderer 1996, p. 64, Schwickert 1996, p. 11, Riekhof 1996, p. 17	determined – variable
frequency of execution/ cf. Schuderer 1996, p. 64, Schmidt 1997, p. 11	repetitive – innovative
structure/ cf. Schmidt 1997, p. 12	analytic – synthetic
complexity/ cf. Schwickert 1996, p. 11, Riekhof 1996, p. 17	low – high
range/ cf. Schwickert 1996, p. 13	cross-company – company-wide – cross-functional
task complex/ cf. Kobler 2010, p. 36	core, management and support process

Table 1: Source – based on: features and implementations of processes (*Merkmale und Ausprägungen zur Typologie von Prozessen*)/ cf. Schuderer 1996: p. 64

“Therefore, processes can be characterized vertically according to their level of resolution and their share in the added value, respectively. Vertical criteria are used to identify different perceptions and viewpoints. Additionally, a large number of other criteria can be stated, which either refer to the process as a whole or to specific actions, which occur in the course of the process.”<sup>70</sup>

Another dimension in the description of processes results from basic features of processes which offer the possibility of grouping and attributing them.

Features can be multi-layered; therefore, there is no universally valid definition of potential features. However, a structuring into core, management and support processes can be regarded as a common option.<sup>71</sup>

After the analysis of actions and structuring these into processes and sub-processes according to the shown criteria, processes can be evaluated. This evaluation of processes and tasks can be quite challenging, especially the handling of costs that include features of opportunity costs. Therefore, temporal factors are often taken into consideration as they are easier to determine.<sup>72</sup>

*Günter Schmidt mentions various important factors regarding time: The end of processing, the processing time, the waiting period, schedule variances, delay, the setup time, the capacity load and the idle time of processors and tasks.*

With regard to these temporal factors a multitude of individual measuring parameters can be deduced. These parameters correlate with the respective process or task and contribute to the transparent display of the evaluated procedures.

After these factors have been successfully assigned, concrete costs can be determined so that the result will give a clear overview of the use of resources and hence about especially important processes in the framework of the cost analysis.

### **Analysis and formation of core, management and support processes**

According to the observations under 3.2.1., the processes and actions of the exemplary institutions Ingenium Education and Studienzentrum Weiz will be analyzed. It was tried to compile a complete list of the company’s actions through interviews with employees and the management.

<sup>70</sup> Gronau 2006: p. 93

<sup>71</sup> Cf. Kobler 2010: p. 36 et seq.

<sup>72</sup> Cf. Schmidt 2002: p. 7 et seq.

According to the criteria elaborated in section 3.2.1., more than 100 actions in the exemplary institution were grouped into processes or supplemented with processes that had not been taken into account during the previous observation.

For the purposes of typing, an allocation process according to task complexes will be used, which means a classification into core, management and support processes. The outcome will be presented in the following table:

Core Processes
C1 Industry analysis
C2 Development of educational programs
C3 Planning and preparation of educational programs
C5 Public relations
C4 Organization of educational programs
C3 Management of educational partners
C4 Organization of educational programs
C6 Support
C7 Evaluation and examination
C8 Evaluation and improvement of results
C9 Research und development
Management Processes
M1 Strategy and corporate development
M2 Financing
M3 Human resource management & development
M4 Selection und evaluation of teachers
Support Processes
S1 Corporate controlling
S2 Internal communication
S3 Support of graduates
S4 Quality management
S5 Organization of EDP & IT
S6 Office administration

*Table 2: Process table for institutions for further education, in-house production (2011)*

### Assessment of processes

The result should provide a basis for the determination of the processes with the highest influence on the success of the educational institution. In order to reach this aim the aspects elaborated in section 3 will be examined in a multilevel test process. It is the basic goal to include objective and measurable as well as subjective criteria into the decision-making process. It is being examined which processes in the educational institution tie up the most personnel resources quantity-wise and to which extent they have budget responsibilities. In the framework of a qualitative examination it is to be determined which processes successfully influence other processes.

In a first quantitative evaluation process, the different processes are being evaluated on the basis of a survey among the employees regarding resource consumption/personnel expenses.

Second, a three class categorization will be used by the management to assess to what extent the particular processes carry “budget responsibilities” and thus have an increased necessity for controlling.

The concluding process then examines if and in how far an individual process has influence on another process, which would determine if there are processes in particular need of controlling. This examination is based on the creation of an evaluation matrix analyzed and completed by the management.

The following questions are to be answered in the course of the examination process:

- Which processes consume which amount of internal resources?
- Which budget responsibilities do the processes carry?
- How do the processes influence each other?

After the completion of the particular evaluation steps, a total score is being calculated and evaluated subjectively according to the company's perspective. The result consists of a list of the most important processes according to objective as well as subjective aspects.

All other steps of the analysis have been rated according to a three points system. Every process will be given one to three points: "3": overproportional importance/alteration; "2": proportional importance/alteration; "1": underproportional importance/alteration; "0": no relationship/minor importance in the context.

### Quantitative assessment: resource consumption

Regarding the evaluation of the resource consumption of the educational institution the main focus lies on the factor "labor", which means human resources.

In order to gain insight into the most labor-intensive processes the management and the employees of the institutions were requested to subjectively rate the over 100 actions that had been determined beforehand. Every employee has tried to evaluate the effort necessary for each process in relation to the relative share of the work availability in total.

After the completion of the employees' and the management's evaluation, the outcome presents itself as follows: resource consumption of labor apportioned to the previously determined processes, listed according to importance and already supplemented with the assigned evaluation points:

Type	1 <sup>st</sup> degree process	Weighted effort/ human resources unit	Points
C3	Management of educational partners	9.11%	3
C6	Support	31.01%	3
S5	Organization of EDP & IT	11.83%	3
M2	Financing	6.75%	2
C2	Development of educational programs	4.02%	2
C4	Organization of educational programs	5.92%	2
C5	Public relations	6.27%	2
S2	Internal communication	4.62%	2
S6	Office administration	6.98%	2
M1	Strategy and corporate development	2.37%	1
M3	Human resource management & development	1.07%	1
M4	Selection und evaluation of the teachers	1.54%	1
C7	Evaluation and examination	1.78%	1
S1	Corporate controlling	3.43%	1
S3	Support of graduates	1.54%	1
C1	Industry analysis	0.71%	0
C8	Research & development	0.24%	0
S4	Quality management	0.24%	0

Table 3: Process evaluation of Ingenium Education; source: Ingenium Education (2011)

### Quantitative assessment: budget consumption

The second step consists of the evaluation of the processes in monetary terms. The different processes cannot be rated equally regarding the institution's budgetary distribution. The process of public relations, for instance, consumes only a small amount of human resources but 10 to 20 percent of the total turnover depending on corporate policy.

Therefore, the management was asked to distribute respective budget responsibilities among the processes in order to determine another source of information on the importance of particular processes. The processes were evaluated as follows:

- "0": little influence on budget
- "1": less budget consumption than human resource consumption
- "2": human resource consumption equivalent to budgetary responsibility
- "3": higher budget consumption than human resource consumption



After the creation of the process relationship matrix, the accumulated influence of processes was calculated und multiplied by a special weighting factor elaborated with the institutions. The total of the awarded points is used as the basis for a final listing in order to gain a result from this examination step.

Type	Process relationship matrix	Influence	Weighting	Points in total	Points
S4	Quality management	25	10	250	3
M3	Human resource management & development	19	10	190	3
C6	Support	18	10	180	3
C3	Management of educational partners	22	8	176	3
M2	Financing	20	8	160	3
S1	Corporate controlling	15	10	150	2
M1	Strategy and corporate development	13	10	130	2
C2	Development of educational programs	15	8	120	2
S2	Internal communication	15	8	120	2
C5	Public relations	10	10	100	2
M4	Selection und evaluation of teachers	12	8	96	1
S3	Support of graduates	12	8	96	1
S5	Organization of EDP & IT	16	6	96	1
C7	Evaluation and examination	14	6	84	1
C1	Industry analysis	11	7	77	1
S6	Office administration	10	7	70	1
C4	Organization of educational programs	10	4	40	1

Table 5: weighted and sorted process relationship matrix

### Closing assessment

In the concluding step, the outcome of the previously conducted analyses will be put together, which results in a points-based ranking. The sum of the points of the individual processes is being multiplied by a weighting factor determined by the representative institutions.

With this weighting factor, a factor that is subjectively important to the company has crucial influence on the evaluation.

The weighting of the sum of the points leads to a concluding result and thus a finalized ranking of the processes according to their relevance to the corporate management of educational institutions:

Type	1 <sup>st</sup> degree process	Personnel expenditure	Budget responsibilities	Process relations	Total	Weighting	Result
C5	Public relations	2	3	2	7	10	70
C6	Support	3	1	3	7	10	70
S1	Corporate controlling	1	3	2	6	10	60
C3	Management of educational partners	3	1	3	7	8	56
M1	Strategy and corporate development	1	2	2	5	10	50
M3	Human resource management & development	1	1	3	5	10	50
S4	Quality management	0	2	3	5	10	50
M2	Financing	2	1	3	6	8	48
C2	Development of educational programs	2	1	2	5	8	40
S6	Office administration	2	2	1	5	7	35
S2	Internal communication	2	0	2	4	8	32
S5	Organization of EDP & IT	3	1	1	5	6	30
C4	Organization of educational programs	2	3	1	6	4	24
M4	Selection und evaluation of teachers	1	0	1	2	8	16
S3	Support of graduates	1	0	1	2	8	16
C1	Industry analysis	0	1	1	2	7	14
C7	Evaluation and examination	1	0	1	2	6	12

Table 6: result of the process evaluation, finalized list

## Summary

The purpose of this paper was to establish a process tableau for private educational institutions with the aid of representative exemplary institutions and to evaluate these processes through particular quantitative and qualitative evaluation methods. Objective criteria such as the consumption of personnel resources or budget as well as subjective criteria specified by the institutions had an influence on the evaluation process.

All of the analysis criteria were determined by the author in cooperation with the institutions. It is evident that these criteria could be amended by further aspects such as the influence of alterations and innovations on processes. All in all, an objective illustration of those processes in educational institutions that require special controlling has been presented and evaluated with regard to personnel and budget resource consumption as well as the influence of processes on each other.

The following core, support and management processes have been determined as the most important ones:

- core process public relations
- core process support
- core process management of educational partners
- support process corporate controlling
- support process quality management
- management process strategy and corporate development
- management process human resource management & development
- management process financing

This ranking can be viewed as a sole basis for the further elaboration of parameters, measuring criteria and key figures in order to establish customized educational controlling tableaus for private higher education institutions.

## List of abbreviations

AHS	allgemeinbildende höhere Schule (academic secondary school - upper cycle)
BHS	berufsbildende höhere Schule (higher-level technical and vocational college)
CIPP	Context Input Process Product
e.V.	eingetragener Verein (registered society)
EDP	electronic data processing
FH	Fachhochschule (University of Applied Sciences)
HAK	Handelsakademie (commercial high school)
HTL	Höhere Technische Lehranstalt (secondary technical school)
HUM	Humanberufliche Schulen (college of social and services industries)
IGC	International Group of Controlling
ISO	International Organization for Standardization
IT	Information technology
Ltd.	limited company
PLC	public limited company
QSRG	<i>Qualitätssicherungsrahmengesetz (law providing guidelines for quality management)</i>
ROI	return on investment
SWOT	Strengths Weaknesses Opportunities Threats
UniAkkG	Universitäts-Akkreditierungsgesetz (university accreditation law)
VOI	Value of Investment

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Figure 1: process relationship matrix Ingenium Education/Studienzentrum Weiz; source: interviews with the management of Ingenium, Studienzentrum Weiz, April 2013 14

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[www.statistik.at](http://www.statistik.at)

# REFLECTIONS ON THE TEACHING & LEARNING ONLINE APPROACH: A CONTEMPORARY CHALLENGE? OR A THREAT?

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## Abstract

An academic starting work in a new environment is challenging. In addition recent technological developments and advancements mean we are all having to change our lifestyles, our habits and even our behaviour. Behaviourism where different behaviours are adopted according to the circumstances is the approach I try to adopt in my teaching which is mainly on postgraduate courses. I adopt the same approach for my everyday life. However, it is hard to say identify what types of behaviour I will develop as technological advancement influence my behaviour in both my personal and professional life. What I do know is that my behaviour will have to change and I recognise a need for equilibrium between my online and offline personality.

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**Keywords:** Teaching and learning, online approach, challenges

## I.

It is now acknowledged that in the future the majority of teaching and learning and indeed our personal life may be online. As a result of this change our behaviours will have to change. We will all have to adapt to this change and possibly even develop new behaviours towards our colleagues, friends and even family as we establish online relationships. It is difficult to say if our actual personalities will change but we will have to adapt our behaviour to the new environment. This process will not be easy or straightforward and how we, as academics, will have to change how we express ourselves in the online classroom. This may even mean, as a university teacher, I will have to reinvent myself and re-examine what motivate me because one of the things myself and my colleagues find most satisfying is the face to face interaction with students. It is difficult to see how this interactivity and staff/student relationship, that is developed over time in the physical classroom, will transfer to the online environment. Students will develop different learning styles online so academic staff will need to training in all aspects of media education such as training in the new pedagogy, developing online materials and using the new media. Previously digital media was only a facilitator or support for face to face teaching. Online tutors will not be able to identify individual student's learning styles easily. However, it has been recognised students have different learning styles so this may mean learning customisation may have to be considered. This customisation will require a different set of principles to those required for traditional learning and this may mean a move towards a new more equilibrated educational system which deals mainly with online personas rather than the learner or the student as traditionally is defined. Motivation will also be a consideration and, because the students will be used to the technology, the main concern will be with the actual content itself and the approach to education rather than the (online) delivery method. Basically, the motivation will be a combination of sounds, music and educational material gathering all the experiences that



the learner may have both from the online and offline world. It is generally accepted education should be learner focused and this should be the case irrespective of the teaching or the learning environment. The main challenge for the teacher is to ensure the learner is at the centre of the education experience. The demographics and the diversity of the learner may however, stipulate the overall approach of the education experience. In addition the evolution and increased use of the internet has also meant learners have developed different learning styles. The age of the learner will also vary as will the different capabilities or skills he or she has. Overall, the learner is a knowledge co-producer due to the acquired knowledge he/she has from different sources academic or not reliable or unreliable. As well as having to take into account the different learner's profile the teacher must also be aware of the fact that learning devices or the media that supports learning are also changing. It still has to be established if such changes support or obstruct learning. Contemporary learners do not simply read from books they use ipads or smart phones or other 'useful' devices in everyday life. Education, for them, is an extension of their everyday life and such devices can therefore be used to support their education or learning. This should mean we can consider if there can be a change in the way education can be delivered or even is delivered. The delivery of educational content in the near future will be digital and already digital sources like eBooks are popular. Again, are we prepared as tutors to support this? Is educational research oriented towards this issues that very soon will arise? We need to consider the impact such changes in attitude and student expectations have on education and we should try to develop different approaches to delivery as soon as possible. In addition the different students learning styles will also have to be considered. An interesting issue is how we map this customization of learning styles to an online context and environment. Additionally, we have to consider the tutor training necessary to achieve the different educational goals and objectives in these new environments. What also needs to be considered are the ethical or moral considerations - is learning in such an environment socially responsible? Will such an educational system create learners who become more socially responsible through the process of education or do the learners need face to face contact to develop social responsibility? I believe that online education will be very much in vogue in the near future and I am very optimistic that the contribution to this new environment will come from the challenges we will all face. Such challenges include having to adjust to different types of learners and from a different 'classroom' environment which may include thousands of students, but the dialogue will be one to one.

The major players in this game are the institutions putting forward strategies that are meeting with educational demand. We in the UK are experiencing a universal globalisation of the education system mainly from students European universities. Basically, universities are looking to attract more and more students from all disciplines in different ways. Thus, e learning will become a pivotal tool to attract students from all over the world. The different university players will now have to consider how to market themselves to a global audience. Individual universities will now have to consider, and understand the importance of, branding and marketing to ensure they can compete in what will become a global market. The delivery of education will have to meet the student's expectations. In addition, the traditional student' profile is changing and there are now a significant number of mature students registered on online courses. This indicates that a new perspective on education is needed and even a reconstruction of education provision as a whole. New curricula will have to be developed and the existing provision will have to be redesigned according to the needs discussed above. This new digital era will mean universities will have to take a wider approach on the topic of 'how do we deliver' and 'how do we develop the existing provision?' Both the students and the educators need to do much more to develop a new online mentality. It will be necessary to revisit our attitude towards the ways and means of educational delivery. The existing provision of the educational material is assumed to be through a Virtual Learning

Environment (VLE) such as Blackboard. Such VLEs will have to be further developed in order to serve more diverse audiences who expect a more sophisticated resource. Overall, what needs to be considered is who has access to the different material and the education package that universities are offering because the development of new media will mean other education providers may enter the market.

Global changes in the technological environment will have an influence on the sector. There is a question, however, to be asked – why developing countries try to adopt or even mimic what developed countries are doing – even if it is not appropriate. There seems to be a universal trend that educational institutions are trying to be in vogue by adapting practises from the higher education castor in developed countries online learning or teaching is an example. This this phenomenon has to change and each educational provider should feel able to follow develop in its own particular direction. There is potential for all education providers to develop according to the different social needs and wants of the environment or society in which they operate. It could be argues that imitation actually kills education or at least limits it. However, no higher education providers,' even world class ones, can or should resist to any of these changes. Such changes have to be adopted incrementally and it has to be understood technological advancements cannot be a panacea or a remedy for social or educational deficits. The influences that the sector may face are coming from this present and future transformational period when education will be delivered electronically. This is true for short courses or programmes as well as the traditional degree programmes. The impact will be great and the results or possible outcomes are still under discussion. The major concern here will be who (which institutions) are capable of dealing with this change in an environment which is already prepared for the transition. This transformation will have a strong impact on all aspects of our lives but the changes will be positive and can lead to us adopting new lifestyles. Our vocabulary will be different and will use technical terms and definitions. The social transformation also will also force us to redefine our everyday lives. The challenge will be keeping the same values and the students receiving online education will still uphold traditional education values. The redefinition of educational material is an issue for academia will have to consider, for example, the role of the eBook and the other additional material that students will require. As a result of online education, and the fact that students are familiar with it, academics may consider the use of social media. This is an approach that needs very careful consideration. However, there would be some cases though in which social media could be adopted for educational purposes, these cases are mentioned below:

- Social media may not be appropriate for educational purposes, unless providers develop specific social media tools for educational use.
- If delivery using social media is appropriate educationally then our educational platforms need to be redefined.
- Will the learning experience be equivalent to the face to face real life learning experience? What actually will students learn? If the platform is adopted then these questions have to be asked because the learning may be different and it may be based on the skills students may have want to acquired rather than a theoretical knowledge.
- The provision of this new social media approach will be an issue. Traditional educators or educational institutions may still wish to use a VLE platform. Will this still be possible or will this contemporary approach seem outdated.

The provision of online teaching is a current trend and a number of institutions are trying to adopt it. One of the major issues that such universities, and other education providers, have to face is the legal framework impacting on this new educational approach. One major requirement is the platform and the material's accessibility to all the students no matter where they are or who they are or what the student's needs are. The material has to be accessible. Again the tutors skills in the area of accessibility have to updated and developed as

well as the tutor skills in actually using the technology. If programmes are going to be offered globally then the development of online provision may also require people skills in languages. This is even if the course themselves are being offered in English. Tutors will need to have a more global approach to education than the one they have now, and this will make the education look very much different from what it is at the moment. This transition may be relatively straight forwards. For example, PhD students today are much different than the ones in the past. They have a better all-round education; they are more knowledgeable about international affairs. The only issue is that they tutors manage to deliver a quality educational product comparable to the product that is delivered in the physical classroom. Gamification (the use of the students drive for self-expression, competition and achievement) will also be desirable when different institutions deliver online courses or programmes. I believe this approach is interesting and should be considered. Working at a university, famous for its computer games department I have noticed that gamification may be the educational language of the future. Students are motivated to learn using computer games especially when the heroes in the games are well known to them they are or familiar with them. This new educational approach will indicate to students that knowledge acquisition is something they have experience of albeit acquired during the fun of playing a computer game. The issue here is how we separate gaming or fun concept from the educational concept when students are required to play computer games to acquire knowledge. It needs to be clear that games are used for educational purposes only. If online education and including the use of educational games is to be developed the researchers in education will have to take an interest in what we will call a digital or digitalised education. Again the legal issues have to be resolved and copyrights and IP will have to be considered. Students, at the moment, experience different challenges when going online for educational or other purposes. In addition EU regulations relating to data protection and the use of cookies may be a barrier.

Being able to track what students are viewing or visiting may be a breach of privacy and may rely basic on the power rule meaning that the one having the power can make the others obey. Privacy online is an issue for all online providers and will especially be a concern for educational institutions providing online content and they must get advice on the latest regulations. Access to research is also an issue that universities will have to consider if they are going online.

Currently, we have created an online environment where there is open access to research publications. The linkage between online education and scientific sources will be of a major importance in the future and this issue cannot be resolved by either academia itself or by the government itself. A holistic solution must be implemented but the issues must be very carefully considered as it will form the basis of the main guidelines for the new digitalised era the new educational approach.

## **Conclusion**

Online teaching and learning is a reality which will develop in the future. The reasons for this expansion are not to be discussed at this point. This revolutionary approach for education bringing different people together will result in the near future in a different educational environment and a totally different pedagogical and educational approach. The map of this new area should and will include different options for different people. Change major and minor changes will take place in the educational field. The most important ones will be the changes that tutors will need to face such as how to develop and manage the online classroom or how to manage, motivate and support a multi-ethnic audience with different backgrounds, who have different needs and wants or even different aims and different views about education experience they want (and will be paying for). In the near future we will have to assume different learners will be more sophisticated, more knowledgeable and much more technically literate (even more so than the tutor delivering the product). Such learners will be more demanding in terms of the support material they require and the actual

educational delivery, these learners will also want more skills building rather than knowledge building. The learners of the future will be the heavy users of different social media and other online facilities that the Internet offers, such learners will be different from the students we are used to – they will be hidden behind the screen of a PC, laptop or ipad. Tutors will have to take all this into consideration and will have to develop strategies for addressing the issues.

The higher education sector is having to face such challenges and will have to be orientated towards a more business approach when trying to attract and retain students. Institutions will need to decide what type of educational strategy that wishes to follow they will be traditional or innovative. These answers will have to be answered by the senior managers who run our universities and who make decisions regarding the future of higher education. All institutions will be looking for the most efficient option while trying to be a global player. Finally, the legal framework impacting on online teaching, education and training will have to be considered. Academic and institutional traditions will change and evolve and the open source providers (such as coursera) may become important and academics could upload research or other material appropriate to academic life and standards.

The most interesting thing in this case would be then to reassure all parties involved that their work will be:

1. Respected
2. Honoured
3. Appreciated

And I am still wondering are we prepared?

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# ACCOUNTABILITY OF HIGHER EDUCATION IN THE REPUBLIC OF KAZAKHSTAN

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## Abstract

The article considers the problem of higher education accountability in the Republic of Kazakhstan. There is a contradiction between government measures taken on the improvement of the system of higher education in the Republic of Kazakhstan and some conditions and Kazakhstan environment that prevents them from being efficient. The author tries to offer some solutions on the improvement of higher education accountability system.

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**Keywords:** Accountability of higher education, higher education administration, improvement of higher education system

## Introduction:

The problem of higher education accountability in the Republic of Kazakhstan is closely connected with an urgent problem that exists in our country nowadays the problem of the lack of professional, qualified and skilled specialists. On the one hand, there are too many graduates holding a higher education diploma (mostly in the area of economics and law), and on the other hand, the country lacks a lot of professional and qualified specialists. Therefore a lot of national companies are forced to employ specialists from foreign countries. This concerns especially oil and gas sector, maritime industry and also education.

## I.

Such scholars as Kevin P. Kearns “Public productivity and management review”, David E. Leveille “Accountability in higher education: A Public Agenda for Trust and Cultural Change” and Roger Benjamin and Stephen Klein “Assessment Versus Accountability in Higher Education” have developed the theory of higher education accountability and education accountability system principles.

We would like to concentrate our research on the practical side of higher education accountability system inculcation in the system of higher education in the Republic of Kazakhstan.

Due to the transition of Kazakhstan to market economy and new paradigm of education the Republic of Kazakhstan has faced many problems in restructuring and changing the system of education. A lot of changes have been introduced including the system of higher education since 1992. Some of them have brought excellent outcomes, some of them have not. But the Ministry of education and science of the Republic of Kazakhstan and all the educational institutions of higher education have been working on the improvement of the system of higher education and trying to make it better.

We also consider that the preconditions of the present state of the system of higher education in the Republic of Kazakhstan are the following:

**Bologna process.** The fact that the Republic of Kazakhstan has signed Bologna process also involved a lot of changes. In 2011 there was a complete transition to three level higher education system: Bachelor program, Master Program and PhD program. All the dissertation councils were closed and there are not any more candidates or doctors of sciences

who graduate. Therefore there is an urgent problem of absence of research staff and university professors and Phd programs are under the state of establishment and they do not yet train enough specialists to substitute “old” candidates and doctors of sciences.

**Credit system.** Credit system of education was introduced in the beginning of the years of 2000. But it took several years for the Ministry of education and science and universities to inculcate it. Still some of the principles of credit system of education are misunderstood and not always interpreted correctly. As a result there is a definite mess in the state standards of some programs and curricula. The problem of the percentage of obligatory and elective courses is still under discussion.

**Academic mobility.** According to Bologna process both professors and students have the right to free academic mobility. It means that every student has the right to study at least one semester in another university even a foreign one. The problem with students’ academic mobility is that there is no mechanism of credits acceptance and transference. Thus, students who studied at another university and have taken different courses (not those mentioned on their curriculum at home university) and they are not accepted or transferred at their home universities. As a result those students have to take more courses next semester and even pay for them extra money. Accommodation at university dormitories is another problem as some universities do not have space in the dormitory for their own students.

Professors’ academic mobility is even worse. On the one hand, professors are motivated to go and teach at another university, on the other hand, there is no mechanism of payment to such professors and no procedure for their being absent from their home university. Most Kazakhstan universities have not yet accepted such phenomenon as sabbatical.

At the same time the Ministry of education and science of the Republic of Kazakhstan has introduced a program for foreign professors’ visits to Kazakhstan universities and even provide a rather good finance for that. The only problem with that program is language. Not all Kazakhstan students have enough English language level proficiency to be able to attend lectures in English. Kazakhstan faculty manage to communicate with their foreign colleagues with the help of interpreter that also makes the process of communication not a very easy one.

Another solution offered by Kazakhstan government is Bolashak program. It is a great instrument for sending both students and professors to foreign universities to acquire master program, Phd program, different kinds of trainings and internship. Just it needs time to have enough specialists who had training at foreign universities and came back to inculcate all they have learned and acquired.

Thus, there is a contradiction between government measures taken on the improvement of the system of higher education in the Republic of Kazakhstan and some conditions and Kazakhstan environment that prevents them from being efficient.

The system of higher education of the Republic of Kazakhstan has been experiencing a great number of changes since 1992. However, there is no fixed and well-defined system of universities accountability. Some universities in Kazakhstan even have very bad reputation with the employers. As a result the latter refuse to employ such universities graduates and even mention this fact in the advertisements about vacant positions. Most of the companies refuse to employ university graduates without working experience, so this is a very important social problem at present which is closely connected with unemployment situation nowadays and in future. On the one hand, there are too many graduates holding a higher education diploma, on the other hand, the country lacks a lot professional and qualified specialists and is forced to employ a great number of specialists from foreign countries (especially, in oil and gas, maritime, finance, education, etc. sectors).

Therefore, Kazakhstan government, the Ministry of education and science, universities, companies, employers and interested organizations should develop a mutual strategy on higher education accountability system. Otherwise, in some 10-20 years there will

be no professional and qualified employees in the country and the problem of good highly professional and skilled labor will become a more serious problem than it is today.

Having worked in the position of vice-dean on MBA program at D. Serikbayev East-Kazakhstan state technical university, the head of academic mobility department and assistant professor at S. Yesenov Caspian state university of technologies and engineering we faced such problems as: deficit of professional qualified specialists in nearly all industrial areas of Kazakhstan, low demand for university graduates by local, national and international companies, absence of mechanisms for inculcating such principles of Bologna process as credit system, students and professors academic mobility, etc. All of them in our opinion are connected with the problem of higher education accountability.

One of the important issues in higher education accountability is the professional qualification of university faculty. One of the problematic issues in the system of higher education in Kazakhstan now is the availability of professors with Phd, doctorate and candidate degrees at Kazakhstan universities. There is a gap in university specialists training after the transition to three-step education system Bachelor – Master – Doctorate due to the fact that all dissertation Councils have been closed and there are not enough universities and programs for Phd specialists training. Also it will take several more years to develop the system of university faculty training.

During the times of the former Soviet union university faculty was raised from the student times. Most industrious, hard-working and interested in research students were employed as assistants at university departments. At the same time they entered post graduate program (aspirantura) and completed their research in the form of candidate dissertation. Candidate dissertation is a research in some applied science and includes an experiment. After candidate dissertation defense a young researcher had the right to work as senior lecturer or assistant professor and give lectures to students. The next stage was a doctorate dissertation that meant some real significant contribution to the development of a theoretical issue of science. The minimum period for doctorate dissertation data collection, observation, experiment, etc. was ten years. Most universities that had in their structure Dissertation councils made strong demands to the applicants. Candidate and Doctorate dissertations went through several stages of examinations, check-ups and finally a decision was made whether these works presented a real contribution to the modern science. This was the Soviet system of higher education accountability and assessment of university faculty. Candidate or Doctorate diploma and the degree of a candidate or doctor of science was the evidence of the researcher level.

Nowadays unfortunately in some CIS countries the diploma is not the evidence of the person's qualifications. Also some dissertations contain a lot of plagiarism and sometimes their authors did not really write them as there are a lot of offers in the internet to write some paper (graduation paper, thesis, master dissertation, doctorate dissertation, etc.).

Consequently qualification of some university faculty is under a great doubt.

Another problem is that some faculty having worked for 10 or even more years at the university still do not have an academic title or scientific degree though some of them have great practical and teaching experience. But while university attestation and accreditation the index of professors and faculty holding academic title and science degree is one of the most important. Programs that do not have enough professors can be closed according to the recommendation of attestation Committee. Thus some universities make such tricks as combine departments, show less number of faculty or even fire some faculty for the period of attestation.

### **Conclusion:**

In conclusion it is necessary to point out that high quality, accessibility and economic efficiency are the main goals of education. Education predetermines the quality of human



resources of the state, has the key significance for its competitiveness. Higher education accountability in this context is not the problem of one university or country but a global problem.

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# RESEARCH IN INSTITUTIONS OF HIGHER EDUCATION IN AFRICA: CHALLENGES AND PROSPECTS

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## Abstract

**Purpose:** The paper discusses challenges, implications and prospects of research in institutions of higher education in Africa. It posits that research has been accorded insufficient attention and resources by many African governments and institutions of higher education by extension.

**Methodology:** It involved review of relevant literature from textbooks, Journal Articles and personal experiences.

**Findings:** The challenges of research in Africa are not purely academic. They are caused by failure of the governments to put in place policies that recognize the fundamental impact research activities could have on governance and efficient use of public resources. Consequently, research has been accorded insufficient attention and resources by governments and institutions of higher education.

These are manifested in deficiency in training of student researchers, preference for synthetic research rather than innovative and creative types, theoretical approach to teaching research resulting to inadequately prepared personnel to meet international standards. Besides, poor remuneration of researchers has resulted in movements of staff from institutions of higher education to lucrative jobs in the country and brain drain. This has impacted negatively on the quality of research in terms of skills, facilities and the general research environment.

However, use of ICT will make the research process easier and improve dissemination. There is need to encourage partnerships between private and public institutions and collaboration locally and regionally.

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**Keywords:** Research, higher education, Africa

## Practical Implications:

Research plays a pivotal role in the systematic development of new knowledge and is central to the effectiveness of all higher education. One of the core missions of higher education is to advance, create and disseminate knowledge through research and provide service to the community, constant supply of qualified young researchers to assist societies in cultural, social and economic development. Through research, higher education contributes to innovation for mobilization of resources. However in many African countries, research is faced with numerous challenges.

## Value:

This paper has brought out the challenges ailing research in Kenya and by extension other developing countries and made recommendations on them respectively. One of the recommendations of this paper is the need for fundamental reforms in research to support

innovation, and reinforce its long term orientation to meet the needs of African societies. Of special importance is enhancement of research capacities in higher education institutions as a way of ensuring quality research.

### **Introduction**

Institutions should ensure that all members of the academic community engage in research and are provided with appropriate training, resources and support through genuine partnerships with public, private sector and civil society. Academic teaching must be embedded in research to make it successful and realize its aim of building an academically sound mind. Teaching in higher institutions of learning should be performed by research experienced teaching staff as tenets for enlightened professionals with definite self-interest and conscious of public interest. This enhances the role of higher education institutions as places of research and seedbeds of training for future generation of researchers. Research enhances contribution of higher education to innovation through mobilization of co-operation between governments, higher education institutions, industry, and business enterprises. Furthermore, strong link between research and teaching forms a basis for successful teaching and learning process. In essence research and teaching contribute to a constant supply of qualified young researchers. It is evident that educational research has been done within outlined categories and has influenced development of education to varying degrees. It can further be argued that the impact of any research depends on the attitude with which the exercise is approached. Efforts in research have encountered a variety of constraints in Kenya especially in matters relating to research environment. These includes research capacity; financial constraints, other resources (physical development of research institutions), research and policy, relevance, publication of findings, Social, political and cultural context in which research processes occur, as well as information technology.

### **Research Capacity**

Research capacity is discussed in form of technical skills and competencies of individuals engaged in research. Due to severe shortage of local funding for research in African states, there ensued competition for limited international funds for short term research projects. Training in research methodology has also been deficient which can be attributed to the inadequately prepared teaching personnel, higher teaching staff student ratios and inadequate practical exposure of students. This is also to a greater extent blamed on evasion of mathematics and science-based subjects as well as analytical methodologies that use computer technology by students.

Researchers have tended to prefer synthetic (research that does not venture into unknown) rather than creative research that leads to innovations. They mainly concentrate on gathering and integrating what has already been done by others. By extension this suppresses creative research in which the researcher executes innovatively and imaginatively though referring to others to produce new ideas and practices.

Increasing highly educated population has been slow in developing countries. It is therefore necessary to make the best use of scientific manpower that is available in short term. For instance, at graduate level many institutions do not have adequate research programmes. In some universities students are quickly introduced to the process of identifying and stating the problem and then plunged into methods. Crucial aspects like development of instruments such as questionnaires and discussion guides, sampling and data analysis are not effectively covered. Because of this approach many studies have been conducted but very few are methodologically sound. In Tanzania and Malawi, inadequate skill base among researchers made it difficult to conduct high quality research and lack of government investment in research sector meant that local researchers have not had expert training that meets international standards (Stephenson and Monique, 2008).

Research is a labour intensive and skill oriented undertaking. It involves identifying, locating, reading through many documents, developing instruments, sampling, actual data collection, analysis and interpretation skills some of which can only be gained through experience. Unfortunately programs in many Universities in Africa focus on methods with little emphasis on methodology.

Weaknesses in research should be examined in the context of existing education systems in Africa. Education in Africa was mainly inherited from colonial systems which experienced serious crisis in terms of limited capacity in schools, focus on examinations, acute shortages of teaching learning materials and lack of trained and experienced teachers.

From primary, through secondary to university, students should be given the type of education that inculcates self discovery and application of what has been learnt to real life situations. Students should learn through explanation, discussion, analysis and critical reflection. Research should start early in primary and secondary schools where students learn basic principles and engage in simple projects. At the university level teaching and supervision of students should be assigned to experienced professors.

Many governments are remarkably short sighted; they pay huge sums of money for their nationals to receive higher education abroad and then fail to provide them with adequately paid employment or facilities when they return home (Atomic Energy Agency, 1981). Consequently the phenomenon of overseas graduates trying to remain in their country of training is well known in developed countries. The only long term solution is to improve status and facilities in home countries. Sending only those who already have jobs and established commitment to their institutions or a career at home policy is one way of ensuring that studies abroad facilitate our national requirements. The New Partnership for African Development (NEPAD) has made effort to reverse brain drain and enhance African's human resource capital.

Poor commitment of educational researchers is often due to poor remuneration. High quality researchers often quit teaching and research in preference for other more lucrative careers in business, industry and politics while those who remain in the profession often opt for research with rather unorthodox objectives such conducting educational research not because of its value but because it provides an opportunity for "eating". This monetary pre-occupation has led to acrimonious struggle among researchers for often irrelevant donor promoted projects or consultancies. This was viewed as commercialization of research (Mwiria, 1992). In face of limited funding many research projects are sponsored by foreign agencies and therefore more often they suits their interest and not those of the African nations. Many partnerships are unilaterally made with the assumption that donors know the African needs or that African institutions face dire need that they would accept any assistance that come their way regardless of what strings are attached. Such institutional partnerships have made no real contributions to capacity building of African institutions and the general human resource base. Hence in this era of globalization private partnerships with local organizations that understand the environment will be more beneficial to enhance research that will suit the needs of the society.

### **Financial constraints**

The level of development of countries in Africa depends on the rate at which countries are able to generate information through research and how they progressively use such information to strengthen their social, political, economic and technological infrastructures.

This notwithstanding, financial constraints impact virtually all aspects of research including its mission, processes, participants' integrity, as well as dissemination of findings.

This is the reason why developed countries invest highly in establishing institutions and networks that support research activities associated with ground breaking discoveries and innovations such as internet. Unfortunately governments in Africa spend very little money

building supportive environment for research perhaps because of other competing entities including food, health care, education and other basic social services. Except for national censuses and government appointed commissions, the national budgets of many African countries do not allocate specific funds to research. Funding of research is largely left to NGO'S, UN system and other agencies such as Ford foundation and Africa academy of sciences. In some countries, public utilities such as electricity, communication system, water, sanitation and transport network are either lacking or in deplorable state.

Ideally local universities should play a critical role in discovery, storage and dissemination of knowledge. In view of this, post graduate programs hardly get enough funding to build the research base yet students undertaking postgraduate studies are expected to conduct research as part of their programs (Mugenda, 2008). In addition professors are expected to continually engage in research activities and extend the frontiers of knowledge in their areas of expertise yet they are pre-occupied in hopping from regular to parallel programs and supervision of large numbers of students.

One way of supporting research in universities is through fundraising. However fundraising efforts in these institutions are very limited and so are sources of funds along with the lack of research culture. Private companies in Africa rarely conduct research compared to private sector in the developed world.

There is need to have collaborative research among various universities as well as private sector to boost research activities and help to build the necessary infrastructure that support continuing research in local universities. However experience has shown that collaborative research sometimes can be problematic in relation to matters of copyright of results and innovations or products arising from such research (Mugenda, 2008).

Consequently such collaborations are dogged with suspicion among participant and many do not go to the end. This is happening to a large extent at sub-regional level. For instant most universities in the east African region, collaborate in research and other areas under inter-university council of East Africa. However such collaborations need to be increased in order to reach a larger proportion of teaching staff in these universities. Such research is mostly conducted on consultancy basis which creates undue competition and does not even engage the local researchers. This is especially true for locally owned companies.

Perhaps it will take time and a great deal of sensitization for top executives in such companies to realize the benefits of investing in research and embracing a culture of continuous search for information as basis for crucial decisions and development.

Due to financial constraints some students especially at undergraduate level have no option but to look for ways and means of maintaining themselves through unethical practices such as stealing, pick-pocketing, dealing in illegal drugs and in some cases prostitution. This exposes them to more dangers like death and HIV/AIDS. Such practices leave them with inadequate time for concentrating on their studies and more so research. Such learners have become the new generation of "student hustlers" engaging in all sorts of businesses to make ends meet. However some have genuine financial problems while others are competing to maintain high standards of living to match their campus mates from wealthy backgrounds and remain fashionable "ubaby". It is worse when students can go into any length of plagiarism including photocopying assignments of their fellow students or full research documents to present to their supervisors, buying complete proposals and even complete projects in the name of passing examinations or hiring fellow students or even outsiders to do their assignments. In many cases student researchers come to their supervisor with a full proposal to their first meeting which raises more questions than answers. Such students leave University with good academic papers which they present when seeking jobs but with little or no practical experience in research topics they claim to have researched. They are people of questionable backgrounds and end up mismanaging the limited resources in the companies/firms when entrusted with managerial roles. In the year 2007 higher education

institutions in South Africa released reports on plagiarism involving students in both undergraduate and postgraduate programmes as well as lecturers. Most of these students were made to repeat courses or expelled altogether while the lecturers were dismissed or forced to resign. This was mainly attributed to the technological highway that has posed challenges in universities globally. Most Universities are battling with plagiarism. For students and experienced scholars in this new age, technology creates a great temptation to plagiarise (Smith, 2007). Consequently organizations like Glatt and Turnitin company have been created specifically to deal with plagiarism by making it possible to detect it in submitted documents and instituting legal suits.

However poor research culture is also to blame in circumstances where the concept of research is associated with a condition to fulfil academic requirements for degree courses and not directed towards solving a problem. Young academics are introduced to research only at a later stage with limited or no practical elements. The situation becomes more critical in the case of working students who have financial and time constraints as they have family responsibilities and are engaged at their work places. Their time for searching for knowledge especially at the post graduate level is limited.

### **Research and policy**

Research need to provide communities and decision-makers with useful recommendations and possible actions for resolving fundamental problems. Such research provides pragmatic, action-oriented recommendations for addressing issues, questions or problems. Policy research is linked to public agenda and results are useful for development. Unfortunately policy research is not common or popular with governments in Africa.

Governments in developed countries recognize the important role that research can play in policy development. For example, in 1996, a Policy Research Initiative was created by the Federal Government of Canada to develop a research strategy for the country in preparation for complex public policy challenges the country was likely to face over the coming years. Its goal was to build a solid foundation of expertise and knowledge upon which sound policy decisions could be based on and in so doing, contribute to building a strong and vital Canadian Policy Research Community (Policy Research Initiative, 2001). In Tanzania and Malawi researchers felt that policy makers' lack of understanding and respect for research limited the extent to which research is used for policy formation. Researchers also lacked skills and resources for dissemination of findings. On the other hand, the shift towards evidence-based policy formation, demand for research outputs that can provide clear and concise policy relevant findings (Stephenson and Monique, 2002). This study further established that some researchers were reluctant to disseminate findings that have political implications especially those in conflict with the national politics.

However, research community is beginning to respond to the needs of individual organizations and societies. The shift to this new paradigm has occurred for a number of reasons including the call to make research more accountable, the demands for an evidence-based approach to planning and decision-making, the desire for social scientists to be recognized as major players in health research, and the realization that there is a wealth of untapped social science and local knowledge which could be used to create a more equal and healthy society (Lyons, 1999).

### **Other Resources**

In the long term there is need for policy framework that will allocate funds to support research. There are very few developing countries supporting their scientists at a level which make national research programmes self-sustaining and significant. Probably not more than US \$2000 million is spent on scientific research by all developing countries at the present time. Overall this is a very small proportion of total expenditure, particularly if one realizes

that such research is the basis of all advances in agriculture and technology, the twin goals of most developing countries. We need to look to expenditure of at least many times this amount in the medium term. Considering international aspects, it is clear that "big science" is becoming too costly for many developed countries, and they are finding a solution through the joint funding of laboratories and projects. In view of this, countries in Western Europe have collaborated to pursue advanced nuclear physics research through European Organization for Nuclear Research.

For many developing countries including Kenya research facilities are too costly and obsolescence is quite acute. This has crippled many laboratories as importation of spares is more difficult and costly. It is therefore essential to concentrate facilities at few sites where they are efficiently utilized and maintained. In some cases there is no one available to carry out even minor repairs of such equipments. In addition there are few research institutions and those available have poor facilities such as libraries and documentation centres. Many countries disperse their effort between too many research institutes that are poorly furnished and to make matters worse, these institutes are often located in urban centres, hence making them inaccessible to researchers in remote rural areas.

In addition existing research facilities have inadequate equipments such as computers and photocopiers for processing outputs. Infrastructure to support research in many developing countries is deficient in amenities such as telephone facilities, roads and electricity. Exchange of information and research findings among institutions is therefore seriously hindered. Kenya has hatched a series of new strategies to reform its higher education sector, which call for new university campuses to be created in rural areas and funding to be upped to enable more students to be enrolled in the coming years. The government's plan to increase their allocations to higher education and the current extension of fibre optic cables to rural areas is a welcome move in the right direction.

Poor research facilities have for a long time been attributed to poverty that hinder African governments from providing required institutions with equipments and infrastructure for effective research. While this is true for some poor countries, it may not hold in some cases where government officials with little or no regard for research have fraudulently channelled billions to personal accounts in developed countries, thereby enriching themselves at the expense of research programmes. Along with these, many cases of donor funds released in the name of research end up in pockets of a few. The little funds committed to research have limited impact when it comes to application of research findings.

### **Research relevance**

It is imperative for African institutions to develop their own teaching methodologies by integrating the African languages verbal and non verbal and ensuring teaching aids are as far as possible locally produced. The curriculum materials and methods cannot be culture free for it is impossible for human beings even curriculum developers to free themselves from their own culture. To be most effective, research methods have to be tailored to the needs of the learners and those of the society. One way by which Africa may look to herself is by an examination of methodologies and techniques of traditional African education including traditional practices for bringing up the young and learning through practice or lifelong education. Inquiry into such methods may reveal practices that can be adopted directly or with little adaptation. Great emphasis on research through practice is perhaps a striking feature of traditional African society and in line with current demands of linking education with productive work. It is evident that the areas of traditional educational methods and techniques have not yet received the research attention it deserves (United States International University, 2005).

In South Africa the University of Venda has undertaken widespread reforms of the curriculum that has involved infusion of indigenous knowledge and technology into

curriculum from such diverse fields as traditional art and craft, traditional cosmetics, traditional foods and medicine, knowledge of the environment and African civilization. The curriculum is designed to be learner centred, problem-based and project driven.

### **Publication of findings**

Publishing findings forms a window through which research information is released to the public through written documents, posting such information in a website and distributing copies of such work with the consent of the author through periodicals, books, scholarly journals, and magazines (Mugenda, 2008). While research productivity in terms of articles, in the rest of the world is increasing fast, the relative position of Africa as knowledge producer is decreasing gradually. Sub-Saharan Africa contributes around 0.7% of world scientific output, and this figure has decreased over the last 15 to 20 years. Except for South Africa, lack of incentives to publish was also a problem due to starting with very little research funding from the government. When researchers are encouraged to publish their research findings in books, periodicals, scholarly journals, or magazines, it facilitates wider sharing of findings among researchers, professionals and policy makers. Experience has shown that such sharing helps to set standards to be emulated by potential researchers as they thoroughly describe methods.

However, most of the researches conducted in Africa continue to gather dust in some rooms in many universities while many researchers are forced to seek publication in foreign journals. Publishing in these journals is often a slow and frustrating experience and even when such material is accepted for publication the information is not readily accessible to local researchers, professionals or communities who need it most. This has resulted to lack of locally published books in research and other professional areas. Kobia (2006) noted that Africa as a continent continue to experience “book famine” as locally published books and journals are very few in various disciplines. Deprivation of knowledge discourages the culture of reading and makes it impossible to achieve mass education.

A study by Centre for Higher Education Transformation (CHET, 2011), concludes that the knowledge production output of the academics scores at flagship African universities is not strong enough to enable universities to make a sustainable contribution to development. In other universities, the study found that “each academic was likely to publish on average only one article every 10 or more years.”

Research as a fundamental mission of higher education will need to be reinforced and shall call for substantial increase in the number of academic journals and implementation of coherent publication policy at the national and regional levels.

### **Social, Cultural and Political Influence**

A culture of secrecy and fear of unknown prevalent in African societies just like in many other societies that are not exposed to the world have continued to impact on research negatively. The greatest concern is ethnic chauvinism necessitating the need to keep tribal secrets and keep away intruders. In many communities during initiation candidates are required to keep community secrets and be aware of strangers which is not favourable for a healthy research environment. Even today people are not generally open to researchers and often give false data which is dangerous when it comes to implementing findings.

Incongruent political patterns also affect research. Leaders in Africa have often not demonstrated readiness to accept the truth, seek or incorporate it in legislation as it tends to threaten them politically. Political situation in many African states may be blamed for failure to integrate research, in planning and policy making. The tension and wars that have erupted and prevailed have rendered educational research impractical and certainly unsustainable in some regions. This has partly contributed to insecurity that makes it very difficult for many countries to progress in research. In Kenya most educational research outputs have had an insignificant impact on guiding decision-making.



This political situation poses philosophical hurdles in the meaning and objectives of research as perceived by researchers. It determines the purpose or drive which brings us to the question, “is research done to quest for truth, for political ends, or for money?” According to Mwiria (1992) researchers could be truthful and aim at nothing but the truth or be dishonest and aim at nothing but money. On the other hand the researched groups may wish to cooperate in research deceitfully with the primary aim of being paid. This is a significant feature where poverty drives people desperately to look for income from any possible source. Decision makers on the other hand tend to be more opportunistic than realistic in the realm of educational policy. In many cases research whether donor or government funded has been used and abused to further political ends rather than its legitimate educational ends.

As for the teacher in the class the concern in implementation of research results is not a priority. There is very little in terms of research for the “good of the establishment” or for the good of the pupil”. It is apparent in many African countries that teachers are often concerned with earning their daily bread. The prevailing culture of self-satisfaction is increasingly gaining a central place. This partly explains why corruption is generally prevalent in the society as exemplified by the case of embezzlement of Free Primary Education funds in Kenya.

The reason that governments of many developing countries do not support scientific research more enthusiastically than they do, is because they regard research as a chasm into which money is poured and nothing of apparent value comes out. It is inevitable, probably desirable, that most research in developing countries should be applied or mission oriented.

Applied research need not really be restrictive as there is always room for original and basic approaches

### **Information Technology**

In developed countries information technology has helped drive research standards that make the research process easier and faster. Literature review can easily be done through the internet and various packages since analyzed data are readily available in the market. However use of IT in research is hampered by lack of resources in many African countries (Mugenda, 2008). High cost has kept computer technology beyond the reach of many teaching staff and students. There have been attempts by foreign donors to donate computers to institutions but the need is overwhelming compared to supply. Such initiatives have also been hampered by lack of supportive infrastructure such as electricity in rural areas, lack of proper maintenance and replacement of hardware and computer skills among users. There have also been cases of organizations in developed countries off loading used computers to institutions of learning some of which are in poor working conditions and become obsolete. Some donated computers work for only a short time before collapsing. Some donors could be using the third world countries as a destination for their e-waste which is hazardous to life (human and animals).

In some institutions of higher education teaching staff are ill equipped in computer technology with the consequent poor transmission of such skills to learners. Lack of modern ICT infrastructure and skills in the education system in many countries in Africa is a painful embarrassment in education development in the continent. Education sector should take lead in advancing information technology to the society to enhance development in other sectors not only to reduce a dependence on foreign skills and support but also create employment for the African youth.

UNESCO (2005) notes that internet application has not only become a way of reducing cost but also a way of maximizing efficiency and effectiveness without reliance on paper work. Essentially African universities need to maintain up-to-date websites that provide information on all their activities and potential ones. They should also operate through interactive linkages between organizations thereby expanding their own resource pool. It is

important to note that various universities have invested heavily in connectivity and interconnectivity as is the case of University of Nairobi and Kenyatta University in Kenya. These institutions are reaping benefits in terms of internal and external communication in relation to courses offered, examinations, registration and general management promoting efficiency and accountability. Such systems have enhanced access, monitoring and tracking students' information, and quality assurance by extension.

Information Technology has also made great strides in Open and Distance learning, offering a powerful channel for bringing education to groups that have previously been excluded. In the future, it is almost certain to take place increasingly across regions.

### Conclusion

From the foregoing discussions, it is clear that academic teaching should be conducted by research experienced staff and embedded in research with a view to making these institutions places of research and seedbeds of training for future generation of researchers.

However, research in Africa is characterised by low technical skills and competences of the faculty and high faculty/student ratios contributing to inadequately prepared research graduates, with the consequent poor research culture. The problem is exacerbated by brain drain occasioned by sending students abroad who choose to stay in their countries of training.

Financial constraints associated with meagre budget allocation to research leads to few institutions of research that are ill-equipped and sometimes too obsolete for modern use. As a result of this research funding is sometimes left to donors who have their own interest which may not concur with the needs of the local people. Furthermore, most research findings are not disseminated due to high expenses of publishing. Social, cultural and political environment in Africa also impacts research negatively.

It has been a challenge to access research materials in Africa from other parts of the world due to lack of computers and electricity which are necessary for Information Technology.

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# THE ANALYSIS OF ORGANIZATIONAL CULTURE WITH THE DENISON MODEL (The Case Study of Latvian Municipality)

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## Abstract

The article is devoted to the study of organizational culture, this is being considered as a problematic topic in management but it requires a wise management.

Culture should not be considered as an obstacle in business. In time of competitiveness and changes it has some advantages (Hoecklin, 1994). The culture of a particular organization determines the image of organization as a social institution, and a belonging of human resources to it. This is particularly significant for the state governance and is a source of stability. It can be viewed as a source of inspiration for the employees.

Cross-cultural management is a part of international management system that separates itself from the usual (anthropological) view toward culture and can be viewed in the context of practical management. It allows viewing culture as a multi cultural management in all environments. This new approach allows *knowledge transfer and organizational learning*.

The main task of a cross-cultural management is to coordinate professional activity and a professional development of coworkers at the workplace, when knowledge, values and the experience are significant aspects that are to be considered in a multicultural society. Research indicates that culture is seen as a tool that allows describing diverse socio cultural systems. This article is aimed to describe organizational culture in one of the Municipalities with the help of Denison model.

The authors analyze organizational culture based on answers of respondents, by taking into account Denison model's factors and indices that influence organizational culture as relevant for Latvia. This allows reevaluating the quality of culture as a substantial essence, and to determine organizational coherence, integrity and team work. The authors explored the strategy of an organization and how it reacts to changes and integration issues. The number of involved respondents comprises 63 Municipality workers.

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**Keywords:** Organizational culture, the quality of organizational culture, factors and indices determining organizational culture

## Introduction

A lot of specialists underline that culture is a problematic field of management, however it is definitely manageable and has to be managed. The question is – How is it to be done? The question is not simple to answer, because how and what to manage depend not only on parties involved in cross-cultural relationships, but also on viewpoints and theoretical positions used in the process of management.

Culture should not be perceived only as an obstacle creating difficulties for a business and management process, since in the face of tough competition it may offer several advantages as well (Hoecklin, 1994). In order we should be able to use cultural diversity as an economic tool, the cultural diversity and its influence should be looked at from a different angle.

It is essential to properly understand the concept of culture, because its definitions are many and various. The most common one is the assertion that culture is a wholeness which incorporates knowledge, convictions, art, virtues, laws, habits and many other skills and abilities which a human, being a representative of the society, acquires. According to Vichansky and Naumov (Виханский, Наумов, 2006), culture is a sophisticated mechanism, and the principal potential of organization life is its organizational culture: why people become members of the organization; how the relations between them are developed; what stable norms and principles of organization life and activities they observe; what in their opinion is good or bad, and all the rest that can be counted as norms and values.

Many authors have looked at the aspects of culture in organizations as:

managing across borders (Ghsohal and Barlett, 1989);  
management through cultures (Joynt and Warner, 1996);  
international managing across borders and cultures (Deresky, 2006);  
resistance of cultures (Dupriez, 2002);  
contradictions of cultures (Seelye and Seelye-James, 1995);  
culture wars (Viney, 1997);  
when cultures collide: managing successfully across cultures (Lewis, 1996) etc.

In the research on management, culture is understood as a summarization which can be used as a measuring instrument allowing us to characterize (obligatory stereotyping them) various socio-cultural systems: national cultures or cultures of a “smaller scope” – companies, various teams, political parties or informal group cultures. In any case the concept “culture” is to be related to the product of human activity – whether material or spiritual, therefore it can be observed and analyzed at a different level of abstraction and from different ontological aspects. E. Holl and E. Schein maintain that there are the visible and the invisible cultures. Management of culture includes 3 aspects:

national and ethnic associations with a body of characterizations which relate to a distinct (culture specific) style of management or organization of interviews;  
specific qualities of the organization (corporate culture);  
mind activity, way of thinking.

The definition of organizational culture provided by E. Schein is as follows: the culture of organization is a body of basic convictions which have been created by a definite group or acquired/ developed over the time, when the group is learning to resolve problems of adapting to the external environment and to the internal integration – the convictions which have appeared to be effective enough to be considered valuable (Шейн, 2002).

Schein thought that organizational culture helps to cope with the problems of external adaptation and internal integration. It is vital that the complex of the basic proposals and basic positions, which have been worked out and accepted by the respective organization, would function long enough and maintain its independence, and therefore this complex should be handed over to the new members of the organization, too, as a model of “correct” thinking and feelings.

Recently, under the impact of globalization, cross-cultural management is being spoken about more frequently. It is a component/branch of the international management which lately is trying to separate itself from the usual (anthropological) view on culture and more frequently is looking at it in the context of a constructive activity. In relation to this, the contribution of several authors is to be mentioned here:

G. Hofstede (Hofstede, Hofstede, Minkov, 2010);  
F. Trompenaars (Trompenaars, 1998);  
N. Holden (Holden, 2002).

Cross-cultural management studies human behavior in organizations located in different places and countries, and teaches to work and cooperate with colleagues and costumers. It is concerned with organizational behavior in different countries and cultures,

compares this behavior, tries to understand it and improve the interaction and communication between employees, costumers, suppliers, partners etc.

Cross-cultural management is a part of a multi-cultural management in both internal and external environment of the organization. A new approach to this assumption is knowledge transfer and organizational learning. The main task of a cross-cultural management is to coordinate the professional activity and learning activity in a constructive communication, when knowledge, values and experience are incorporated in a common multi-cultural cooperation.

## Methodology

Depending on the approach to the organizational culture studies and the aim of these studies, the scientists have developed essentially different techniques and methods for the analysis and evaluation of organizational culture. The typology worked out by Quinn and Cameron can be mentioned as ranking among the most complete and elaborated ones. It includes core characteristics of cultures and allows identifying their quantitative and qualitative values as well as following the changes which are taking place in the organization (Камерон, Куинн, 2001).

In his turn, Denison has developed a popular and practically applicable model which explicitly shows the link existing between organizational culture and efficiency. The model is based on four basic features of organizational culture: involvement, consistency, adaptability and mission, each of them having three sub-groups. In the result, the model showing the linkage between organizational culture and efficiency with 12 different features of organizational culture has been created. The efficiency of organization's activity in this model is measured with such indicators as the increase in trade volume, market share, profitability, development of new services and products, quality of services and products, employees' satisfaction and general efficiency of the organization.

As a result, the Denison model of organizational culture has become one of the most popular models for the analysis of organizational culture (see Figure 1).

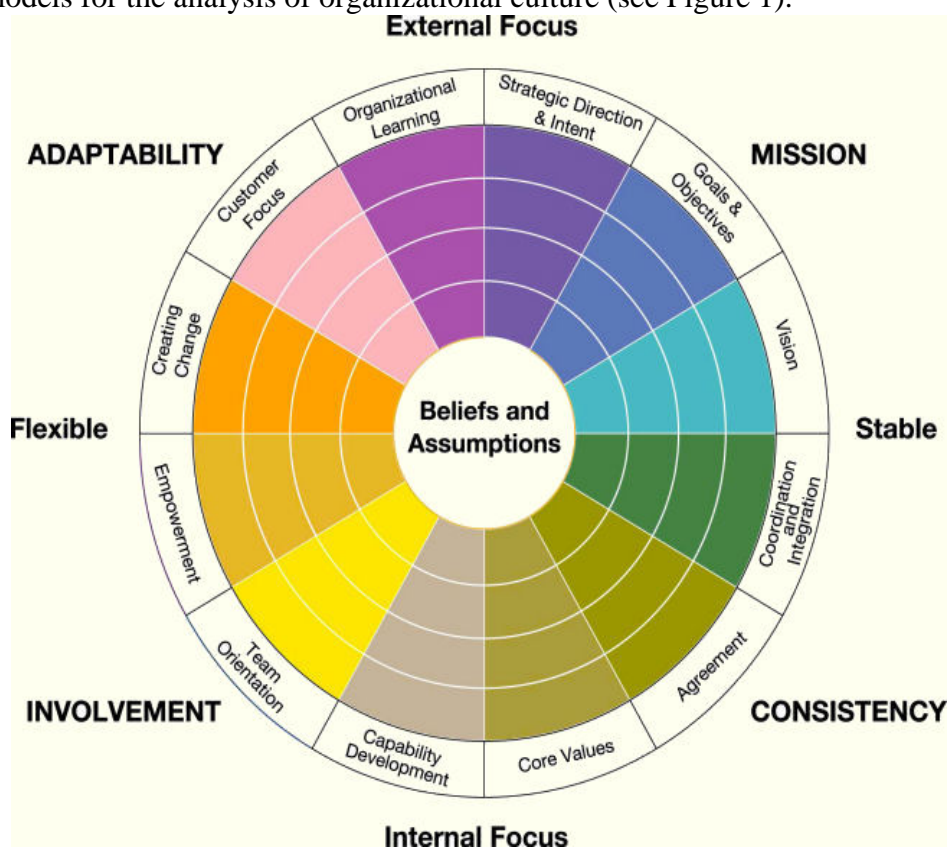


Figure 1. Denison model (Denison, Hooijberg, Lane, Lief, 2012)

Denison characterizes the mutual influence of the four cultural factors upon the organization's efficiency: mission and consistency, adaptability and involvement:

Mission is a characterization of organization's aims and directions of a strategic development, based on the concept which has been developed by the organization and is future-oriented;

Involvement is a state during which the employees feel that their activity is tightly linked with the goals of organization, that they have been empowered, that team work is to be valued and the priority is given to the development of employees' capabilities;

Consistency is the high level of integration and coordination;

Adaptability is a state within the frame of which the organization flexibly responds to costumers' requirements, takes risks, learns from their own mistakes and is ready for changes.

Each of the four organizational culture factors has three variables – indices. Thus, involvement is characterized by such indices as empowerment, team orientation, capability development; consistency – by core values, coordination and integration, agreement; adaptability – by organizational learning, focus on the customer, creating change; mission – by vision, goals and objectives, and strategy (Denison, Hooijberg, Lane, Lief 2012)

Like Cameron and Quinn, Denison, too, has studied organizational culture within the frame of two dimensions:

Dimension 1: *internal focus* when attention is given to what is going on inside the organization and *external focus* when the attention is devoted to what is happening outside the organization;

Dimension 2: *stability and control*, namely, interest in maintaining the existing situation and *flexibility and freedom of action*, namely, interest in changes and development.

## Sample

Within the frame of this research, the organizational culture of the X region municipality was analyzed. The data were obtained by a questionnaire survey, based on the questionnaire designed by Denison *online* in the Internet (a special system for conducting surveys- [www.surveymonkey.com](http://www.surveymonkey.com) was used). The questionnaire comprised 60 questions which were combined into 4 factors (organizational culture characteristics) and 12 indices (forces affecting the organizational culture), each factor including 3 indices. In the offered questionnaire, each index had 5 statements.

63 employees working in the X region Council were involved in the survey. Among them were employees from both the administration and its structural units.

The research aim was: to determine factors that affect the organizational culture of X region municipality. Before determining the impact of these four factors – consistency, adaptability, mission and involvement – upon the organizational culture of the municipality, the author made the analysis of the answers provided by the respondents, applying several statistic methods.

## Research results

In the result of the analysis of the questionnaire survey data, all statements (questions), according to Denison, were combined into indices, and the mean significance as well as percent significance of each index was calculated in correspondence with the Denison scale.

Table 1. Results obtained from the X municipality questionnaire survey: assessment of factors and indices affecting organizational culture

Factor/index	Assessment according	to the scale by Denison
	Mean significance	%
Adaptability		
Creating change	3.9	73
Customer focus	3.8	70
Organizational learning	3.6	65
Mission		
Strategic direction & intent	3.9	73

Goals & objectives	3.7	68
Vision	3.6	65
Consistency		
Coordination and integration	3.6	65
Agreement	3.6	65
Core values	3.7	68
Involvement		
Empowerment	3.8	70
Capability Development	3.8	70
Team orientation	3.6	65

The data in Table 1 show that the indices “Creating change” and “Strategic direction” have received the highest assessment. This can be attributed to the fact that the municipality is comparatively young and it has been reorganized from another administrative unit. Thus, during recent two years this municipality has been working under conditions of constant changes which, in respondents’ opinion, are important for the development of organizational culture. The index “Strategic direction” has been assessed by a higher mark than other indices, because, to respondents’ mind, the employees are aware of the municipality’s mission. Besides, all other indices relating to goals and vision of the municipality have also been assessed high, although the analysis of the basic elements of organizational culture revealed that the goals and mission of X region municipality are still being in the process of development. The authors attribute this to the fact that the employees are well aware of the developmental programs of Latvia and Latgale regions, of their mission and goals and are informed about the place the X region municipality takes in the development of the Latgale region, as well as know the principal directions of its development.

Two statements received the highest arithmetic mean significance (4.1): “Organization constantly employs new, improved methods of work” and “Information is widely spread in the organization, each employee has access to the needed information”. From this we can infer that the employees are aware of the fact that the municipality is constantly making improvements in their work and is using new standards and methods of work. Besides, the employees are mostly satisfied with the information accessible to them and consider it to be an essential factor for the development of culture, which also deserves a positive assessment. This shows that the staff wants to avoid errors and misunderstandings in their work. But the lowest arithmetic means were given to such statements as: “Customer’s viewpoint directly affects the decisions of the organization” (3.3) and “Organization relies on the horizontal control and coordination rather than on the position in hierarchy” (3.1).

The assessment of the first statement by the arithmetic mean 3.3 implies that, compared to factors included in all other statements, to the respondents’ mind, customers’ viewpoint is the least influential factor concerning the municipality organizational culture. Thus, the assumption that the municipality customers (population) do not essentially influence the organizational culture of the municipality has proved to be true.

A comparatively low assessment of the second statement: “Organization relies on the horizontal control and coordination rather than on the position in hierarchy” implies that in this organization greater significance is attached to vertical control and hierarchy.

The graphic Denison model of organizational culture in X region municipality allows concluding that all respondents (employees of X region municipality) consider all factors, offered by Denison, as forces affecting organizational culture, are important for the municipality’s work and make an impact on its efficiency. Though the factors did not receive the maximal assessment, the force they affect the organizational culture of the municipality with was assessed higher than the mean significance. Besides, all factor assessments approach a maximal mark and are in between 3.5 and 4.1. The respondents consider that both the external factors (adaptability and mission) and internal factors (involvement and consistency) are significant for the development of organizational culture. Consequently, at implementing



the strategic management of X region municipality, it is indispensable to take into consideration the impact of these factors upon the development of organizational culture.

The use of the Denison model allowed determining in the research those forces (12 indices) affecting the organizational culture of X region municipality which make an impact on the efficiency of organization work. In the result, recommendations for orienting these forces towards enhancing the efficiency of X region municipality's work were produced.

## Conclusion

There are three basic approaches to organizational culture: symbolic, when the organization is examined as a system with an indefinite internal environment; cognitive, when the organization is examined as a multitude of knowledge, beliefs and regulations which the organization members have comprehended; and systematic which, at creating the organization climate, functions as the basic determinant of culture which is being formed under the influence of organization's objective qualities and is characterized by the situation of a psychological environment.

Achievements of some enterprises and organizations are to be related to the values of these enterprises (including organizational culture) rather than to economic conditions.

There are several approaches to organizational culture research: starting from the unique approach, which is characterized by a description of culture and non-structured observation, and ending with the universal one, which is characterized by the use of normative models.

Organizational culture can be assessed both qualitatively and quantitatively.

The results obtained from the questionnaire survey of X region municipality showed that the most influential factors affecting the organizational culture of X region municipality are to be related to such factors as constant employment of new, improved methods, accessibility to the information necessary for each employee. Whereas factors that affect organizational culture least of all relate to customers' viewpoint and to the fact that the organization relies more on the horizontal control and coordination rather than on the position in hierarchy. Among the indices characterizing the organizational culture of X region municipality the highest assessment was given to the indices "capability development" and "strategic direction".

All factors, which Denison offers as external and internal factors affecting organizational culture, are important for the work of X region municipality and essentially affect its efficiency.

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# WHO IS INDIGENOUS? DEFINITIONS OF INDIGENEITY

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## Abstract

This article is based on indigenous research focusing on indigeneity and membership in indigenous group at the individual level. The position and rights of indigenous peoples gained a foothold at the political arenas of the world and in international agreements since the turn of the 1990s when indigenous peoples and minorities were started to be distinguished from each other. Indigenous peoples were considered to have collective rights regarding control over certain areas colonized by the mainstream population at a certain point of history. The aim is first to review the different membership criteria within different Indigenous groups in the world, and then to emphasize the definition of Sámi in Finland and its individual-level challenges. As a result of this paper, it seems that the individual-level indigenous identity does not necessarily correspond with the membership in indigenous group. When indigenous identity is not being accepted for one reason or another it violates the international declarations for indigenous peoples and may cause challenges both at individual and societal levels within indigenous communities.

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**Keywords:** Indigenous peoples, definitions of indigeneity, indigenous identity, Sámi, indigenous membership, indigenous peoples rights

## Introduction:

The world's total indigenous population varies from 200 million to 370 million (International Work Group for Indigenous Affairs). Indigenous peoples live in every region of the world. However, 70 % of indigenous peoples live in Asia, while Latin America holds 50 million, which make up 11% of the region's population. It has been claimed that there are 100,000 Inuit, 80,000 Sámi, and 1.5 million indigenous people in North America (Joonas, 2012).

The purpose of this article is to review the identification and membership with an indigenous people. We will contemplate the preconditions of belonging to an indigenous people and the definitions of indigeneity at the personal level. Defining a person as a member of an indigenous group can be difficult because of for example the assimilation process, history of colonization, or complex legislation regulating membership in an indigenous people. The concept of indigenous people is created for international agreements. It is a construction that is applied to certain populations and communities in certain areas. However, there is not any universal definition of the concept indigenous peoples. Often indigenous peoples are referred to as the disadvantaged descendants of the peoples that inhabited a territory prior to colonization or the formation of the existing state (Joonas, 2012; International Work Group for Indigenous Affairs).

The definition can be used for bringing out important common and topical issues of indigenous peoples, such as social, cultural, and political questions. As a concept, it also is connected with identity and its processes (Seurujärvi-Kari, 2012; Valkonen, 2009). The goal

of the development of indigenous peoples' rights is to achieve self-determination in areas populated by these people groups (Koivurova, 2010).

The position and rights of indigenous peoples gained a foothold at the political arenas of the world and in international agreements since the turn of the 1990s when indigenous peoples and minorities were started to be distinguished from each other. Indigenous peoples were considered to have collective rights regarding control over certain areas colonized by the mainstream population at a certain point of history (Koivurova, 2010).

Therefore, it is important to discuss the various definitions of indigeneity in order to know how the world's indigenous peoples define their memberships: who is indigenous and who is not? However, it is worth pointing out that the definitions cannot be compared as such because they always are context-bound: each indigenous people has its own special history especially in relation to the colonialist power. Nevertheless, it is possible to have a look at the main features of these definitions.

### **Definitions of Indigeneity:**

Significant international agreements defining the rights of indigenous peoples are the Convention no. 169 on Indigenous and Tribal Peoples by the International Labour Organization from 1989 and the United Nations Declaration on the Rights of Indigenous Peoples by the General Assembly on 13 September 2007. The ILO No. 169 convention defines such peoples indigenous whose ancestors have lived in the area before the settlement or the formation of the modern state borders. In addition, the convention provides that indigenous peoples have maintained either wholly or partly their own social, economic, cultural, and political institutions. ILO no. 169 convention recognizes indigenous peoples' special rights to their traditional residential places and natural resources, and demands that states start special measures to for example protect indigenous cultures, languages, and environments. However, the convention does not take a stand on how indigenous people should be defined (ILO, 169).

The ILO No. 169 convention is complemented by United Nations' special reporter José Martínez Cobo's (1986) report on the discrimination of indigenous peoples, United Nations. Cobo's definition covers the group- and individual-level definitions of indigeneity. According to the group-level definition, those communities and peoples, who still have continuous historical connection to the societies preceding colonization, who developed on areas populated by these peoples and who consider themselves as clearly separate from other societal structures currently prevailing in the area, are indigenous. In addition, indigenous peoples are not in a ruling position in the modern society and they want to maintain, develop, and transmit the inherited lands and ethnical identity to the future generations. Their ethnic identity forms the existence of the people as one, unitary population in harmony with their own cultural practices, social institutions, and legal systems (Cobo, 1986).

Cobo also gives general answer to the question of who individual people (persons) can be seen as members of an indigenous people. The person must identify himself or herself as a member of an indigenous people (the subjective definition) and on the other hand, the group must acknowledge and accept the person as the member of the people (the objective definition). Cobo emphasized the power of the group in this matter: the group acceptance includes a sovereign right to decide who belongs to the group without outsiders' interference (Cobo, 1986). On the other hand, the UN Declaration states in Article 9 about the sovereign right of an indigenous person to belong to indigenous group the following: "Indigenous peoples and individuals have the right to belong to an indigenous community or nation, in accordance with the traditions and customs of the community or nation concerned, No discrimination of any kind may arise from the exercise of such right" (UN Declaration on the Rights of Indigenous Peoples, 2007).

According to Dr. Tanja Joonas (2010), the definition of an indigenous people as a group is not challenging as such but the definition is problematic at the individual level. The core of the problem is in the indigenous peoples' aspiration to get back their historical rights to the land and waters. Special rights make the individual-level definition topical: how to define the subjects entitled to use indigenous peoples' rights? Joonas (2010) emphasizes the significance of the self-identification as the definition of indigeneity and leans on the first article of the ILO convention no. 169, the ninth article of the United Nations' declaration on indigenous peoples, and the final report of the United Nations' committee on the fight against all racial discrimination concerning Finland (dated March 5, 2009).

### **The Definition of Indigeneity in Hawaii**

Hawaii or in the indigenous language, Hawai'i, is a group of islands located in the northern Pacific Ocean and belonging to the North-America. The indigenous people living in Hawaii made its first contact with the outside world in 1778. Hawaii was an independent nation until 1893 with its monarchy (Trask, 1996). The language of Hawaii remained as the mainstream language until the beginning of the 20<sup>th</sup> century when it changed little by little into the Hawaii Creole English. Due to the language shift, the Hawaiian born after 1920 did not learn the Hawaiian as their native language but the Hawaii Creole English (Maaka, 2005; Wilson & Kamana, 2009).

According to the population statistics of the United States, the population of Hawaii was 1,360,301 in 2010, and of them, roughly 136,000 (10 %) are indigenous Hawaiian (US Census Bureau, Hawaii QuickFacts, 2000). The definition of an indigenous Hawaiian is confirmed in 1921 Congress of the United States. According to the definition, a person who has at least half of his or her blood quantum Hawaiian before the year 1778 is an indigenous Hawaiian. This blood quantum principle has rooted as a part of the legal system in Hawaii. The classification by blood quantum weakens the sovereignty of indigenous Hawaiian people (Kanaka Maoli) (Kauanui, 2008).

In order to participate in some Hawaiian Homelands programs, a person has to be able to prove that he or she is half or more Hawaiian by his or her blood quantum: "Native Hawaiians are defined as individuals having at least 50 percent Hawaiian blood" (Hawaiian Homes Commission Act, Department of Hawaiian Homelands 2012). Today, there are only a few so-called fully Hawaiian people who would have only the Hawaiian blood in their blood quantum. After 2000, no new fully Hawaiians (by blood quantum) has born (W.H. Wilson, personal communiqué, Feb 22, 2010.)

### **Definitions of Indigeneity in Canada**

In North-America, in the wide area of Canada, several different indigenous peoples live, and they are commonly referred as aboriginals. Over one million people (4 % of the whole population) consider themselves as indigenous (Andersson & Henriksson, 2010). About 53 % of them are registered Indians (First Nations), 30 % belong to the Métis group, 11 % are non-status Indians, and 4 % are Inuit. Over a half of the indigenous people of Canada live currently in cities (Aboriginal Affairs and Northern Development Canada, First Nations). The 1982 Constitution, 35§, defines the indigenous peoples of Canada: Indians, Inuit, and Métis (Hedican, 2008). Of these three groups, only Indians have a legal definition of who is an Indian.

### **First Nations Definition**

The concept of First Nations usually refers to the Indians of Canada. The origin of the concept harks back to the time after the Second World War when the Frenchmen and Englishmen were commonly considered the founder nations of Canada. Indians objected and demanded on their recognition as the founder people and therefore the concept of First

Nations was introduced (Andersson & Henriksson, 2010). Nowadays, Canada has 615 Indian communities representing over 50 people or groups and 50 indigenous languages. The definition of who is a Canadian Indian, a member of the First Nations group, is complex and changing. The definition has been changed along the course of time, and various gradations appear from one province to another. The base is however that the definition is purely based on bloodline. The Indian Act includes the eligibility to the Indian status. In addition, Canada has an official Indian Register covering all Canadian Indians with Indian status since 1952. At the moment, of all Canadian Indians, almost 500,000 have registered according to the Indian Act. “Registered Indians are people who are registered with the federal government as Indians, according to the terms of the *Indian Act*. Registered Indians are also known as Status Indians. Status Indians have certain rights and benefits that are not available to Non-Status Indians or Métis people. These may include on-reserve housing benefits, education and exemption from federal, provincial and territorial taxes in specific situations.” (Aboriginal Affairs and Northern Development Canada. The Indian register, 2012.)

The history of the definition of the Canadian Indians helps to understand how the definition was created and how it has affected Indians. Already in the 1860s, the Canadian government passed a law on Indians giving a birth to an Indian register. The definition of Indian included in the law proved to be discriminating and wrongdoing. Especially, the section “Bill C-31” was discriminating and it was finally removed in 1985 when the law was renewed. We will introduce some examples of the discriminating Bill C-31 definition: An Indian woman lost her Indian status if she married a white, non-Indian man, and neither were their children eligible for Indian status. An Indian was given the right to vote in the election of the federation if he or she gave up his or her Indian status. This was called an enfranchisement practice or a “liberation process” (Aboriginal Affairs and Northern Development Canada. The Indian register, 2012). In 1985, the Indian Act was renewed but the discriminating section had already left a part of Indian population without the statutory position.

The current criteria of who is an Indian and eligible to the Indian Register are defined in 1985. According to the Canadian legislation, a person is Indian if:

1. the person was eligible to the Indian Register before the change in the Indian Act, April 17, 1985;
2. the person had lost the Indian status by marrying a non-Indian person;
3. the person’s parents did not have Indian status according to the Indian Act before their marriage and the person had lost the status when 21 years old;
4. the person’s registration as an Indian had been objected because the person’s father had not an Indian status although the person’s mother had;
5. the person lost the Indian status because the person or the person’s parents applied for a waiver of the Indian register and Indian membership as a part of the process called “liberation” (enfranchisement) (The “liberation” was known as a process that aimed at releasing Indians from their identity and status);
6. the person is a child whose parent fills the abovementioned criteria (Aboriginal Affairs and Northern Development Canada. Are you eligible? 2012).

Indians who are not covered by the definition and thus by the Indian Register are called Non-Status Indians. The concept of non-status Indian refers to a person who considers himself or herself an Indian but who is not entitled to register as an Indian. (Aboriginal Affairs and Northern Development Canada. Non Status Indians, 2012; Andersson & Henriksson, 2010).

### **Métis definition**

In 2006, 389,785 persons belonged to the Métis group in Canada. The word Métis is French and means a mixture (mestizo in Spanish). According to the definition, a person is defined as a Métis if the person has both Indian and European blood different from Indian and Inuit, and who is descendent from the Indian population (Canadian Métis Council, 2012.)

In order to become officially Métis and to have a Canadian membership card of the Métis council, the person must fulfil the following criteria: (1) the person has to identify himself or herself as a Métis; (2) the person has to be accepted by the community in other words the community has to consider the person as a Métis; (3) the person must not be a member of the Indian or Inuit Register; and (4) the person has to be descendent from the Indian population, in other words, the person has to be able to prove the Indian origin with the verification process defined by the Canadian Métis Council (2012).

### **The Maori of Aotearoa**

Aotearoa means New-Zealand in the indigenous Maori language. Aotearoa has recognized the Maori as the indigenous people of the area. The first British immigrants came to the Maori land in Aotearoa at the end of the 18<sup>th</sup> century and finally the United Kingdom colonized Aotearoa in the 19<sup>th</sup> century when the area became dependency of UK. In 1840, the Maori and Brits signed the Treaty of Waitangi, in which the Maori headmen gave the Brits the right to control the land. Simultaneously, the Maori were given the civil rights and obligations of the United Kingdom and rights to the traditional tribal lands. In addition, the treaty promised to respect the Maori culture (May, 2002).

The population of Aotearoa is 4.25 million. The number of Maori is counted in two different ways: based on the Maori identity and Maori origin. According to the population census of 2006, 565,329 (almost 15 %) of the population identified as Maori whereas there were 643,977 people of Maori origin (QuickStats About Māori, 2007).

During the past few years, the Maori researchers have opened discussion of the official Maori definition (Coates, 2008; Kukutai, 2004; Lai, 2010; Sullivan, 2008). The Maori definition of Aotearoa has varied considerably along the decades. First, the definition was based on a person's bloodline. According to this definition, a person was Maori, if the person was half-blooded, full-blooded, or between (Coates, 2008). The current definition was established in 1974 having the emphasis on the person's family history, whakapapa. According to the law, a person who has at least one Maori antecedent, no matter how far in the family history, is legally a Maori. Therefore, New Zealand has chosen a very wide and open definition of indigeneity (Coates, 2008; Lai, 2010).

In her study, Natalie Coates discusses the one-sidedness of the emphasis in the Maori definition. She criticizes the fact that the definition was composed by the white ruling power and not by the Maori themselves. According to Coates, the definition should be developed especially from the Maori's own perspective, and she suggests that the definition should be renewed. According to Coates's opinion, the definition should include the criterion of ethnic identity and whether the person considers himself or herself as Maori. Thus, the suggestion for the definition goes as follows: A person who has at least one Maori antecedent and who identifies himself or herself as a Maori, is a Maori (Coates, 2008).

### **The Sámi Definition in Finland**

The Sámi form the only indigenous people within the area of the European Union. The Sámi's status as an Indigenous people is based on their unique worldview, their own history, livelihoods and language. Sápmi, the region inhabited by the Sámi, expands from Central Norway and Sweden over the northern part of Finland to the Kola Peninsula in Russia and thus, Sápmi is located in four countries. Altogether there are about 100,000 Sámi people in these countries. According to official statistics there are about 9,500 Sámi people in Finland.

The Sámi's position in the Finnish legislation was considerably strengthened when the Sámi as an indigenous people was secured the cultural sovereignty over their language and culture in the Sámi residential area in 1995. For this task, the Sámi have election for the Sámi Parliament. The realization of the cultural sovereignty is more specifically defined in the Law on the Sámi Parliament (974/1995; see also Lehtola, 2005). The law in question provided a

legal definition of an individual person who can be called Sámi and a member of the indigenous people. The definition of the 3 § of the law is two-part: it is based on self-identification and legal criteria forming the basis of the so-called group acceptance of the Sámi Parliament (Hyvärinen, 2010). The Sámi definition was revised and widened powerfully in the Law on Sámi Parliament by adding two new objective criteria in it (Myntti, 2000).

Pursuant to the Finnish law on the Sámi Parliament, a person is considered a Sámi if he/she considers him/herself a Sámi and if (1) the person him/herself or at least of one parent or grandparent of his/hers has learned Sámi as the first language, or (2) the person is a descendant of someone who has been registered as a Fell, Forest or Fishing Sámi in the land, taxation or census register, or (3) at least one of his/her parents has or could have been registered as entitled to vote in the elections of the Sámi Delegation or the Sámi Parliament (Act on Sámi Parliament, 1995; adopted on 17 July 1995).

In order to become officially Sámi or having the Sámi status, the person has to identify himself or herself as Sámi referring to the subjective criterion, and to fulfil at least one of the optional objective criteria in the aforementioned definition. These criteria are related to (1) the Sámi language, (2) Sámi ancestry, and (3) Sámi parents.

The first objective criterion is language-based requiring that one of the person's parent or grandparent had to have the Sámi language as his or her native language. The first criterion corresponds to the year 1990 Sámi definition composed by the Sámi council. The language principle does not reach historically far because it does not cover knowledge of the Sámi language beyond grandparents (Myntti, 2000). The first option is problematic because it excludes especially descendants of Forest and Fisher Sámi whose ancestors had to face the language shift earlier in the history. It is notable that from the legal perspective both official and excluded Sámi progeny is descendant of the same Sámi people with the distinction that a part of the people had to face such a powerful pressure by the settlement that they lost their Sámi language (Myntti, 2000). The language-based criterion has been a part of the Sámi definition ever since the first version of the definition.

The second criterion concerns Sámi ancestry and has been the most challenging to interpret. The concept of descendant of the Sámi is open to interpretations because the law does not specifically define the temporal connection with Sáminess. According to Pääkkönen (2008), this caused a situation in which a Sámi ancestry could be searched from faraway from one's history. In addition, the potential geographical location extended radically. It has been argued that everyone who could find even one Sámi ancestor even from hundreds of years ago could claim Sámi status and the right to vote in the election of Sámi Parliament (Lehtola, 2005).

The third criterion refers to a Sámi parent. According to the criterion, a person is Sámi if his or her parent could have been registered in the electoral register of the Sámi Parliament. Along with time, this criterion can cause problems because then just being a descendant can be enough for a Sámi status regardless of the person's knowledge of the Sámi language or connections with Sámi people.

The Sámi definition has the word "or" which means that in addition to self-identification, only one of the objective criteria has to be fulfilled in order to have Sámi status. Myntti (2000) has analyzed the definition from the judicial point of view and concluded that the definition is primarily based on the Sámi language but not the knowledge of the Sámi language. Indeed, he does suggest that the new language-based criterion in the Sámi definition should be based on actual knowledge of the Sámi language (Myntti, 2000).

### **Discussion:**

In Finland, the interpretation of the Sámi definition, the group identification of the Sámi, has caused individual-level conflicts for a long time already. The organ executing the group identification, the Sámi Parliament, has excluded a little less than 2,000 persons from



the official Sámi status. Sarivaara (2012) has named this group of people the Non-Status Sámi—in line with the international terminology. According to Sarivaara's (2012) definition, a non-status Sámi (1) is descendant of a Sámi family and (2) is not a member of the electoral register of the Sámi Parliament. The definition of non-status Sámi is based on these objective criteria having no emphasis on self-identification.

In comparison, the Canadian indigenous laws are based on bloodline (Palmer 2000). If someone fulfill the criteria of indigeneity, he or she can have rights to use lands and waters of the reservations. Indigenous peoples of the area have divided into two from juristic perspective. In North-America, a member of an indigenous people but with not legal rights is called a Non-Status Indian. A Non-Status Indian means someone who identifies with indigenous Canadian Indians or First Nations but who does not have legal position in the Indian Act (Bayefsky, 1982; Cornet, 2003).

In some cases, the indigenous status has been lost as the result of applying complex laws and regulations if they have not corresponded the person's self-identification:

“Aboriginal individuals who are of Indian or First Nations ancestry and would so identify but do not have Indian Act status. In some cases, status has been lost through the complex application of legal rules that have not corresponded with individuals' identities” (Magnet et al., 2005, p. 180).

The indigenous identity is often connected with the demands of authenticity and essentialism (Smith, 1999). Smith continues that a person who belongs to an indigenous people, who for example participates in political discussion, becomes often questioned for his or her authenticity. Discussion of authenticity is harmful especially among people in the marginal of indigeneity such as those whose blood quantum is too white or for example among urbanized non-status Maori. Smith continues the questioning of authenticity defined by outsiders by presenting an example of researchers who had concluded that the indigenous people of Tasmania was extinct. However, there were people in Tasmania who called themselves Aboriginal Tasmanians. The interpretation was that the people's identification was a political invention of people who did not exist any longer and therefore they could not present any demands (Smith, 1999).

### **Conclusion:**

Indigenous peoples have their own distinct languages, cultures, and social and political institutions that may vary considerably from those of mainstream society. While indigenous peoples face the similar experiences of discrimination, language loss and marginalization as other ethnic minorities, there are very important differences in terms of their rights and identity. Contrary to other ethnic minorities, that struggle to protect their rights at an individual level, indigenous peoples have always stressed the need to recognize their collective rights. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which was adopted by the UN General Assembly in 2007, recognizes these collective rights.

Crucially, self-identification as an indigenous individual cultural identity and acceptance as such by the indigenous group is an essential component of indigenous peoples' sense of identity. However, self-identification can also lead to serious conflicts of not being accepted as indigenous members. Joonas argues that: “It should be noted that, even though self-identification is generally used to refer to peoples, the term also includes an individual's feeling. Without individuals there are no groups. Logically, the definition of a group and the definition of an individual cannot be fully separated.” (Joonas, 2012, p. 147.) Acceptance of one's indigenous identity as indigenous member can be challenging and bureaucratic process. When acceptance of an individual identity fails it may lead to serious psychological problems such as stress, trauma, and angst. Indigenous identity is a crucial part of an individual person's identity (Sarivaara, 2012; Sarivaara, Uusiantti, & Määttä, 2013).

As the analysis shows, indigeneity is defined differently in different countries. For example, New Zealand has a relatively liberal definition that accepts the multiformity of the Maori culture. The basis of definitions is also in bloodline or indigenous languages. This has led to a problem if a part of an indigenous people has been excluded from the indigenous status and their identity has not been accepted. For the vital future of indigenous peoples, we see that an inclusive approach to the definition is needed. This would mean that as many descendant as possible could be officially accepted as members of indigenous peoples.

Paradoxically enough, indigenous peoples can also act as the obstacles of development. Discourse about “too white” or cultural threat by referring to own people who have for example lost their indigenous language can be harmful both at the individual and the communal level. The discourse of cultural threat does not emancipate the indigenous people but can lay the foundation for essentialist and ethnocentric models within the indigenous people. As a result of history of colonization processes the indigenous peoples are facing challenges to proceed forward from victim role into pro-activism. Emancipation, indigenous identity and revitalization are goals that the future of indigenous peoples necessitate.

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# **PRE-SERVICE TEACHER EDUCATION: EXPERIENCE AND DEVELOPMENTAL TENDENCIES AT LIEPAJA UNIVERSITY**

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## **Abstract:**

Constant upgrade of professional teacher education is a staple resource for boosting the general quality of education in any country. For this reason, seeking appropriate ways to achieve the said upgrade and appraising potential resources that might serve this purpose is an ever-present hot topic in the field of educational research. In keeping with this popular trend, the present study analyses university students' views on key features of an ideal teacher's professional practice that successfully meets the challenges of modern-day knowledge society. Meanwhile, in-service teachers' reflection on their actual professional practice is examined for expert insights and used to formulate recommendations for upgrading the pedagogical education that is offered in teacher education programmes at Liepaja University. The paper highlights the need for a refined model of collegial university-school partnership that would support optimal socialisation of novice teachers and contribute to pre-service teachers' pedagogical competence.

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**Keywords:** Education, teacher, study programme, change, socialisation

## **Introduction:**

Pedagogical competence and professional growth in day-to-day teaching practice are fundamental strategies that, to a great extent, shape and even kick-start change in education, thereby giving it vital quality injections. The amount of required innovation in school and educational practice – undeniably, a highly conservative system – attests to systemic implementation of comprehensive educational reform. In such conditions, teachers need new experience, knowledge and skills. The quality of education is effectively contingent on pre-service teachers' personality, professional motivation, practical and psychological preparedness, professional socialisation upon entering the school setting and the array of learning and self-education skills developed at university. Teachers are catalysts of innovation and change in education; hence the need for action competence and a clear and informed understanding of how to address burning pedagogical problems.

Purposeful development of teacher reflexivity about learner growth and the quality of school practice as well as enabling teachers to discuss their professional competence and growth are viable headways into achieving a better comprehension of how the aim and contents of education should be readjusted to meet the needs of the twenty-first century. Helping pre-service teachers develop an inclination for prospective professional learning at school will reinforce the potential of educational resources, strengthen each student's individual pedagogical competence, bear favourably on future schoolteachers' professional growth and encourage a relationship of collegiality and cooperation for fostering change. Teachers' ability to manage change, develop professionally in the role of change agents and blend their rich educational experiences can enhance the efficacy of reaching educational goals.

The present study **aims** to illuminate potential developmental tendencies of pre-service teachers' professional identity by analysing Latvian pre-service and in-service teachers' experience in the light of teachers' professional socialisation and pedagogical competence formation. Thus, the study addresses the following research questions:

- What features of pedagogical practice are seen by university students as characteristic of an ideal teacher's image in a modern school?
- What pressing alterations should be made to the organisation of pre-service teacher education in order to optimise their professional socialisation?

### **Methodology:**

The paper presents an analysis of relevant scientific literature to appraise the approaches used by Western and Eastern scholars to meet the challenges faced by teacher education and suggest appropriate transformations and to evaluate the aims, objectives and outcomes of the study programme *Teacher* at Liepaja University in the light of pressing changes. Modelling an ideal teacher's image is performed by relying on data from a survey of 97 university students. In this survey, pre-service teachers list and substantiate key features of pedagogical practice in a modern school. Recommendations for improving pre-service teachers' professional socialisation are proposed by drawing on 52 in-service teacher experts' reflections on teacher education and national standards.

### **Challenges of pedagogical practice:**

In European educational policy, 1990s was the time for moving the goalposts of education towards a new fundamental concern: an individual perpetually engaged in responsible and autonomous learning that fully utilises the entire range of modern-day resources, such as languages, media and various cooperation networks. In prospectively changing situations of the future, such individuals would create actionable, self-sufficient educational institutions and systems of educational organisation that would successfully assume responsibility for expanding the horizons of learning for the coming generations. In the present context of social and economic transformations, we are witnessing the birth of a new human archetype – the generation of change. Provision of quality education for this nascent generation poses new challenges to pedagogical practice and teachers' professional growth.

Comforts of life enjoyed by the new generation whose time is increasingly spent in virtual cyberspace, fine understanding of network economy, scant interest in accumulating material possessions and excessive preoccupation with amusement and entertainment coupled with ability to coexist in several parallel universes, instantly change one's persona and adapt to new realities, both actual and artificial – such are the concerns of the twenty-first century youth that is brought up in isolation from their bourgeois parents and industrialist grandparents (Rifkin, 2011).

And it is the teacher who must find the key to pedagogical success when educating this multifarious and fickle generation. Michael Fullan reaffirms the ubiquity of modern-day pedagogical challenges and goes on to explain that nowadays teachers must be able to satisfy diverse and changing learner needs, adapt to rapid technological advances in their professional setting and meet the standard of excellence so vociferously demanded by the general public. The global market ups the stakes even further with its incessant call for actionable schools (Fullan, 1993).

Schoolchildren are enthusiastic learners if learning fills them with the joy of achievement. They intuitively feel and appreciate expansion in the horizons of their potential and value instruments that enable self-control. Meanwhile, adults (parents and teachers) are often unready to respond to the changing demands of the present, let alone envision those of the future (Maslo, 2006).

Competence fuels assurance, personalised vision and projection of aims as well as supports fulfilment of ambitions. Nowadays, the teacher's role has shifted quite dramatically – teachers are required to perform diverse tasks and form multi-professional teams with doctors, psychologists and social workers. The internal composition of learners has also changed significantly in that teachers face the reality of working with learners from multicultural groups. Diversity of these tasks inhibits public appreciation of the teacher's work, because narrow specialisation is generally considered a hallmark of prestigious professions. Key bottlenecks to the teacher's work are circumstantial, such as the complexity and variability of professional duties, growing workloads and dwindling wages. Over a quarter of surveyed Danish, Dutch and British teachers point to these constraints. Inadequate system of practical professional training, especially as regards managing problem children and adolescents, is another frequently cited inadequacy (Eurydice, 2004).

Key demands for an education of the future are obscure and hence difficult to pinpoint. For this reason, locating the indicators of professionalism in teachers of the future is a strategically important field of study. Information-related challenges of modern society expose the inadequacy of pedagogical studies exclusively concerned with transmitting a specific set of knowledge. Truly appropriate educational aims focus on developing specific attitudes and skills, including those pertinent to spiritual life. Such personality traits as sense of responsibility, benevolence, sensitivity and spirit of independence are just as essential as universal intellectual skills of identifying the problem, making generalisations, understanding causality, etc. The process of education fosters the development of these traits, attitudes and skills along with acquisition of new knowledge under careful guidance by the teacher.

The concept of quality is universal. In school life, however, it describes the process of education and its outcome. A review of current tendencies in school education suggests an ongoing transition from dominant acquisition of factual knowledge towards harmonised education of personality and preparation for lifelong learning and active participation in a change society. The upshot of this fundamental shift is clear and unmistakable – teachers themselves must engage in continuous learning. They must develop in order to enable learner development which, in turn, would initiate and sustain large-scale social progress. Proficiency and competence are obvious and essential prerequisites for effective action, but they are only means towards a deeper understanding rather than ends in themselves. New perspectives grow from new proficiencies and vice versa. Proficiency, in this case, is closely related to envisioning the future. Personal proficiency exceeds one's knowledge and skills, although is heavily contingent on them. According to this view, life becomes a labour of creativity that should be perceived and enjoyed from a creative rather than reactive vantage point. Thus, creative learning becomes a lifelong pursuit (Senge, 1990: 26–27).

Teachers cannot afford to wait for internally born improvements to the pedagogical system. Systems do not change by themselves while people wait for others to resolve their problems. Intensive studies into professional teacher development corroborate the effectiveness of skills development strategies that are shown to improve the quality of school life (Abu-Hussain, 2002; Daiktere, 2012; Frankel, 2002; Kapenieks, 2013.; Zeiberte, 2012).

Experience of educational action research at Daugavpils University (Latvia) confirms the viability of expanding individual research activity performed by pre-service teachers who come to develop personal opinions of sustainable self-development and education (Strode, 2010: 50–51).

### **Study programme *Teacher*:**

For people in Latvia, the name of Liepaja evokes associations with a bustling economy and cultural activity. Yet Liepaja is also a university town with Liepaja University at the very heart of its scientific and academic life. The programme *Teacher* at Liepaja University aims to prepare professionally trained, creative and motivated teachers who are competent to address

pressing educational issues and competitive in Latvian and European labour markets (Studiju programma [Study programme], 2013). Programme graduates are awarded a *professional bachelor's degree in education* and professional qualification. In addition, a particular concern in programme implementation is providing students with ample opportunities to obtain knowledge required for successful engagement in important post-graduation pursuits such as continuing education and research. In knowledge society, teaching is, unavoidably, a challenging occupation, which means that university studies should support pre-service teachers' self-realisation and professional identity formation in keeping with the need for lifelong learning. Analysis of programme contents exposes the objectives of the study process, which involve provision of the following opportunities:

1. to acquire knowledge in pedagogy, psychology, social science and humanities that is relevant to understanding the relationship of the individual and society and the intricacies of learners' personality development;
2. to combine theoretical knowledge and its practical usage in the process of mastering the technologies of learning, thereby supporting effective application of appropriate teaching methodologies and insights from professional specialisation courses;
3. to develop relevant skills and competences required for effective planning, implementation and evaluation of education;
4. to perform student research that successfully integrates theoretical insights and practice-derived lessons;
5. to grow as an autonomous, creative, responsible and open personality while improving one's professional competence and pedagogical target orientation;
6. to develop motivation for self-education and inclination towards cooperation and experience exchange in the study process as well as towards creative and social activity.

The study programme is expected to achieve the following learning outcomes:

- students have acquired relevant theoretical knowledge and mastered the teaching and learning technologies required for successful planning, implementation and evaluation of the teaching and learning process;
- students demonstrate pedagogical skills that align with innovative tendencies in education and meet labour market demands;
- students are able to engage in positive interaction with parents and other stakeholders as well as exhibit tolerance in different social environments;
- students are able to identify pressing research issues and select appropriate methodologies;
- students demonstrate skills of self-inquiry and self-reflection about their pedagogical practice.

In 2004, Emils Arajs – an experienced teacher and former headmaster from Liepaja – deliberated on the demand in Latvian schools for teachers with a degree in pedagogy and adequate qualification: “It is hard to pinpoint what a proper teacher actually is. It is a point of convergence of two essentials. The first, undeniably, is talent, because a talented teacher is an unparalleled and consummate professional in all areas. The second is teaching – a labour and, at the same time, an art. Happiest of all are the children that are taught by teachers who reject the notion of a single benchmark approach and who are extraordinary in their knowledge and competence. They are all unusual. When such a teacher enters the classroom, the children feel like celebrating. If this is to continue, we must seize and treasure every individual who shows willingness to work with children” (Arajs, 2004: 2).

Teacher education programmes at Liepaja University (previously pedagogical institute, higher education institution and academy) are implemented since 1954. A veritable treasure trove of priceless pedagogical experience has been accumulated over the years. Programme achievements in preparing prospective educators are aptly and succinctly



described by Vineta Trumsina – former dean of the Faculty of Pedagogy: “Changeability rooted in tradition and accomplishment is the hallmark of pre-service teacher education programmes at our Academy” (Trumsina, 2001: 4). Challenges inherent in pedagogical practice and social demand for qualified and omnipotent teachers heighten the requirements for teacher education and university students’ professional growth.

In the 1970s, teacher-learner interaction in Latvia was interpreted through the prism of teaching and learning processes and, according to Irina Maslo, generally, from a behaviourist vantage point (Maslo, 2006). During 1990s, the latter was superseded by the concept of open learning, which came to be perceived as an interactive process. Democratic school practice introduced new indicators of teacher effectiveness, which are still relevant to pre-service teacher education; hence the need to ascertain first-year students’ (yesterday’s pupils’) views on a teacher who is well-equipped for educating a generation of change in a modern school.

### Research findings:

The features of an ideal teacher’s image proposed by the 97 first-year students who participated in the study can be grouped in the following categories: personality traits (51%), pedagogical competence (30%) and professional functions (19%).

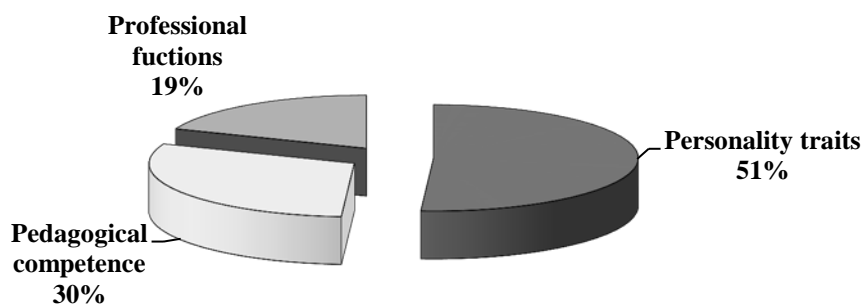


Figure 1. Modelling an ideal teacher: The students’ perspective

Evaluation of the proposed personality traits exposes the following dominants among an ideal teacher’s characteristics:

- friendly, trustworthy, kind – 42 selections,
- smiling, open, interested, responsive, forthcoming – 30 selections,
- knowledgeable, intelligent, modern as regards methods selection – 27 selections,
- sympathetic, tolerant, positive, optimistic – 24 selections,
- communicable, active – 20 selections,
- erect posture, neat appearance, taste, fashion sense – 20 selections,
- always learning, knowledgeable about global news, erudite – 11 selections,
- responsible, conscientious, organised – 10 selections.

The clearly dominant dimension of personality can be related to the pressing nature of the social context at school and explained away with reference to the tendency of paradigm shift. The latter enhances the importance of personality and warrants quality dialogue in the pedagogical process. Comprehensive social change and incessant attempts to reform education needlessly raise stress levels in the school environment, which contaminates relationships. A relationship is always grounded in some social values. Recently, the traditional teacher-learner relationship has undergone material change. Modern-day classrooms feature much more complex psychological situations, which becomes a challenge

to the teacher who, so far, is still to become a consummate professional and whose professional preparedness thus far is inadequate.

When focusing on pedagogical competence and professional functions, the students emphasise the need for a teacher who can learn and keep up with the time, accept challenges and inspire learning as well as provide opportunities for creative writing, understand learners, listen to them and awaken their interest.

Table 1

**Students' utterances**

- *The teacher must always be willing to learn... not only from books but also from the environment, such as, for instance, the school, the headteacher and the learners.*
- *The teacher must be brave, especially nowadays and when working with adolescents, because the latter are sometimes listless and disinterested and hence have unflattering attitudes towards teachers. For this reason, facing the class and attempting to teach what one intends to requires bravery.*
- *Creative. Because not everyone is keen to learn, so the teacher should think of a way of exciting the children's interest. The teacher should be able to solve any problems quickly, because parents dislike teachers who complain and perceive them as incapable of doing their work.*

Evaluation of the content and implementation of pre-service teacher education programmes at Liepāja University, analysis of observation data about the students' pedagogical activity and reflection on their individual professional experience underpinned the answers received from 52 in-service teacher experts who participate in the study. The experts completed their questionnaires by marking 143 positive and 108 negative aspects of teacher education. More profound analysis of these perspectives should inform efforts to upgrade the study programme. At the same time, the data suggest a new vantage point from which to re-examine the contents of education.

Figure 2 summarises the dominant insights from positive experience of teacher education and outlines potential improvements that ought to be made in order to eliminate negatives.

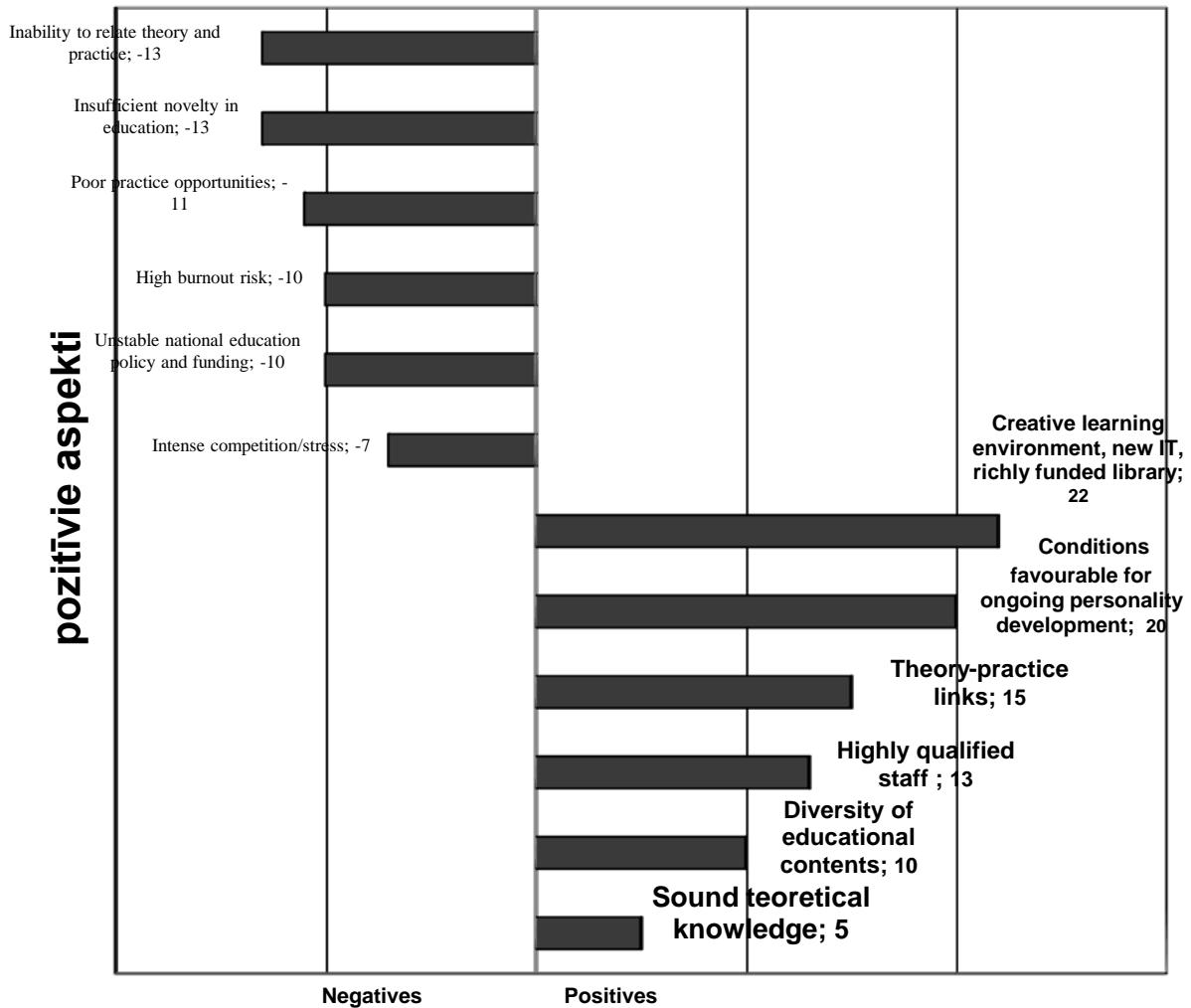


Figure 2. Evaluation of pre-service teacher education programmes: The teachers' perspective

Figure 2 suggests that, according to the surveyed teacher experts, looking for optimal solutions to eliminating the negatives involves facilitating the socialisation of pre-service teachers. This can be achieved by redressing the balance between theory and practice and by helping students improve their pedagogical competence via provision of adequate practice placement opportunities under the supervision of experienced teachers and university staff. Mentoring is an up-to-date and yet unexploited opportunity. Insistence on shared responsibility and inter-systems coordination and cooperation in the implementation of pre-service teacher education programmes are viable and effective headways into improving the organisation of pedagogical practice. Coordinated effort by university staff and schoolteachers during students' practice placement is a still untapped resource that can materially contribute to prospective teachers' professional growth.

**Conclusion:**

Analysis of normative regulations for studies and university models aimed at facilitating the formation of pre-service teachers' pedagogical competence as well as appraisal of students' views on their studies, practice placement and professional identity expose some yet untapped resources that can be used to foster professional socialisation in the study process. Latvian institutions of teacher education rely on different pedagogical models.

Academic staff at Liepāja University believe that teacher education can be significantly improved by aligning it with the fundamental principle of inter-systems coordination, i.e. coordination between teacher education institutions and schools or other socialisation settings where students debut as teachers and have their very first experience of pedagogical practice. Cooperation formats where university (a teacher education system) and school (a site for practice placement) share responsibility and combine efforts into a joint organisational system can support students at the outset of their pedagogical career.

Such collegial partnership requires ongoing pedagogical reflection on achievements, analysis of the pitfalls navigated and errors made along the way and a constant quest for solutions that may serve to improve educational environment. Pursuit of shared aims involved in teacher preparation in an academic setting and at school, which is the locus of practice placement, prompts organisational innovation in the latter, such as improved teaching, a relationship of cooperation and a better quality interaction among schoolteachers, which are all undeniable boosts to novice teachers' professional socialisation.

Pedagogical competence formation during professional training is contingent on effective education of prospective teachers at the very outset of their university studies and ongoing professional development throughout the study process, which involves developing such habits of learning that support prospective teacher's professional self-education.

Coordinated and collegial university-school partnership in teacher education is a vital resource that should be tapped in order to facilitate pedagogical competence formation in prospective educators. It demands constant attention, mutual communication and interaction with a view to helping pre-service teachers increase their professional mastery. Such cooperation boosts the added value of pedagogical education which, in its turn, bears favourably on the quality of school practice.

Organisational system of pedagogical practice that brings together school and university improves pedagogical processes at school and upgrades the course of teacher training in this setting, thus providing prospective educators with better opportunities to grow as professionals and shape their pedagogical identity.

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# A CASE FOR THE INCLUSION OF VISUAL THINKING UNITS ACROSS THE ACADEMIC SECTOR

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## Abstract

This paper argues for the re-introduction of drawing across the university sector. It also posits that modern university education is too limited in its educational reach across intelligences, focused as it is on textural and logical-mathematical systems of assessment, communication, unit coursework and expected outcomes.

The argument for the re-introduction of drawing is also a call for the development, use and study of studio-based education in the tertiary sector. The skills and knowledge acquired in a studio are particularly pertinent to scientific study; being a range of skills and knowledge too often neglected, through the over-use and reliance on digital technology.

It must always be remembered that undergraduate students, by and large, are young, often naive and have limited physical, hand,-eye, visual or intrapersonal skills or experience. That is not to say they are unintelligent, but their experience and knowledge is limited, a lack of knowledge and understandings too often forgotten by course writers. Students come to university to learn, but the academy is still caught up in presenting information, a commodity easily acquired in the present on-line, globalized climate. What students lack are observational and spatial skills, analytical and comprehension skills, hand-eye and visual intelligence and knowledge and the ability to communicate verbally and visually, outside of the realms of the computer.

Drawing and studio work are both focused on the utilization of multi-intelligence learning. If drawing and studio work were re-introduced into the general tertiary curricula then universities would be graduating much more rounded, more broadly educated and more adaptable graduates and in the end, better scientists.

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**Keywords:** Applied, Visual, Intelligence

## Introduction:

The argument for the inclusion of visual and/or creative, studio-based units across the university sector has not been clearly articulated nor heard. I have argued this case before, at both conferences and in the published article *The Importance and Loss of Studio-based Education in Australian Universities*. Some of this present discussion draws in part, on this published paper. The previous argument however, was mounted in the context of pressures being brought to bare on the provision, servicing and use of creative studios within the Australian university sector. This present paper is specifically concerned with the wider university and the benefits studio-based, multi-intelligence education would have across the student cohort, particularly in the case for drawing.

The lack of recognition and implementation of multi-intelligence studio use is possibly due to the fact that studio-based knowledge and education cannot be easily assessed, quantified, nor accessed on computers. Studios and studio-based activities often have no computer linkage to the rest of the university, nor should they have! So the activities taking place in these learning environments are often hidden from the wider academy.

Studio experience benefits all student learning. Studio work has light, sound, colour, depth, experience, phenomenology and weight. They also encourage interpersonal and

intrapersonal communication and deal with physical materiality. To encourage, deliver, finance, and sell creative, visual, studio-based units to a range of non creative-industry\* based programs, would not only benefit general tertiary education but would be a profitable point of departure for all universities. Indeed, because of numbers this would help finance and cross-fertilize expensive to run Art and Design schools.

Sitting within the tertiary education sector as a privileged academic, it is easy to forget that the almost blanket penetration of global digital technology and digital communication systems are in historic/social terms, a very recent innovation. For a number of years universities were far in advance of the rest of society, in implementing these technologies.

It was only a little over twenty years ago, that the first general and graphic computer labs (outside the fields of science and technology) were installed in one of Australia's leading universities. As a mature age student in the early 90s I had a number of highly experienced, and talented lecturers who were completely digitally illiterate. The whole technology was a complete mystery to them. Indeed I've attended conferences, over the past ten years, where some of the older, liberal arts and humanities academics have had not a clue, concerning digital technologies. In terms of graphic software and multi-media we began our studies in the early 90s, using some of the very first versions of the now ubiquitous Photoshop and Illustrator. The web had still not escaped the confines of the research labs, and multi-media was still in its infancy. Ideas of hyper-textuality and digital identity were burning issues of the day.

As we have become immersed in and surrounded by the technology, issues such as the use and power of manipulated images; of detached, simulacra communications; immersive digital environments; instant, hyperlinked and globally accessible information have become mundane and prosaic, not interesting or revolutionary.

\* Creative industry-

'Advertising, architecture, art, crafts, design, fashion, film, music, performing arts, publishing, R&D, software, toys and games, TV and radio, and video games (Howkins 2001, pp. 88–117).

## **The Problem**

Today, for a range of economic and apparently good, although questionable educational reasons, many entire degrees and post-graduate courses, around the world, are being offered on-line and the digital revolution is both changing the fundamental reasons for, and the structural workings of education as a whole. Academic, university-based education has been particularly changed by the influx of digital technology. Changes, as we can all attest, that have not always been in a positive or even useful manner.

As academics rise further away from the teaching front their time is taken up more comprehensively with computers. They become immersed in a bubble of on-line, textural/logical-mathematical communication- they write and read endless e-mails, write policy and decipher spreadsheets. Undergraduate students are a long way from those places of authority and responsibility, or even educational vision, which is why it is important to educate a multiplicity of intelligences and creative processes in undergraduate and early postgraduate studies. These young minds are already socially immersed in decontextualized digital space, with their mobile phones, smart pads and Internet connectivity; their learning environments should embrace something more.

Unfortunately, as ambitious young academics rise through the ranks to positions of authority and policy power, they never get to understand nor experience the need for nourishing more than their linguistic, logical-mathematical intelligence. They become less likely to recognise the importance of multi-intelligence education and the roles studios and creative workshops play across the academy, in the education of younger generations. As chancelleries fill with these younger, digitally immersed academic leaders, the narrower the

academic vision becomes.

Much has been researched and written about the interplay between the perceiver and the perceived, the nexus between mind and body. Jacques Chevalier begins his trilogy on the mind by asking: *“What is the mind compared to the brain? What is an idea compared to a word, a picture, a sign? One is ‘mental’ and the other is ‘physical’? One consists in thought and the other is a thing that contains thoughts about things? One is the kernel that hides and the other is the tangible shell or outer covering that does the hiding?”* (Chevalier p3)

Gardner talks about seven intelligences and gives this conceptualisation as a definition of intelligence: *“Intelligences are bio-psychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture”*. (Gardner, p33) Note that he regards intelligences as potentials, implying that they need to be activated, nourished, guided and trained. Since Gardner the importance of training all intelligences has been recognised, yet tertiary education focuses almost exclusively on the linguistic (textual) and/or logical-mathematical to the exclusion of other defined intelligences, particularly the visual and kinesthetic. Gardner identifies seven intelligences: *“linguistic, logical-mathematical, musical, bodily kinesthetic, spatial, interpersonal, and intrapersonal”*. (Gardner, p33-34).

In terms of the educational matrix, research gains considerably from integrating a range of intelligences, both physical and mental. Gardner used the term *“frames of mind”*, when first proposing his theory of multiple intelligences in 1983. West writes: *“Those who learn with great difficulty in one setting may learn with surprising ease in another. This fresh perspective suggests that we should be more concerned with results than with trying to get everyone to learn things in the same way, especially if we are more interested in creating new knowledge than in merely absorbing and passing on old knowledge”*. (West p11)

In the multi-source, information rich world of today, passing on ‘old knowledge’ is a self-defeating educational exercise and is the root problem to solve, for all education systems.

The questions have become, ‘what are we actually trying to teach and why?’ The acquisition of old knowledge is not the answer, when so much of it is freely and easily accessible to all students.

The argument for including a wider educational matrix is not an argument about the worth of one form of intelligence over another, as is the present case with the dominance of academic linguistic (textual), logical-mathematical education, but an acceptance and recognition that the brain and hence the education of the mind is a far more complex, multi-faceted activity than is presently found. It can be argued that it is visual, musical, bodily-kinesthetic, spatial, interpersonal, and intrapersonal intelligences that actually produce physical culture, designed space, and human experience. Despite the present obsession of academia with virtual space, virtual life and digital education, human beings still perceive and act in the world, physically. We also behave intuitively, a very difficult attribute to measure in any acceptable academic way.

Because of the lineal nature of computers, university administrations and organisations have become increasingly lineal. Lineal, text-based and logical-mathematical assessment paradigms do not fit comfortably with visual and physical studio work and assessment.

Timetabling becomes highly problematic, as multiple-intelligence learning uses a range of diverse teaching spaces and learning durations, other than lecture theatres, tutorial classrooms and laboratories. Lineal, compartmentalised unit study methodologies do not fit neatly with multiple-intelligence learning. Bodily-kinesthetic and spatial understandings and knowledge takes longer to acquire with some students than with others. Hand-eye skills and knowledge often require longer teaching times, than single subject, twelve-week duration units allow. Alternatively, certain skills require short intensive workshops. So the actual pattern of learning in these areas does not fit neatly into computersed institutional time frames. In some workshops students need to have a settled place to work for the entire



duration of a project, (physical model making for example) quite unlike a computer-based project, whereas at other times, the workshop is utilised for very short periods of time.

Computers force linear assessment criteria, linear knowledge constructs, linear progressions through courses, and the overwhelming use of a linear machine to both communicate and to construct knowledge. Studios nourish a range of intelligences. They also cherish experimentation, and learning outcomes from failure. There is no right or wrong in these spaces, only the acquisition of skills, the process towards appropriate solutions, the gathering of experience and trial and error.

There is a creeping, uncontrolled overload of textural information happening across all institutions. It is not just that administrators are clogging the system; information itself is changing and thus changing the academy. A place for experimentation and multiple-intelligence- studio-based learning is becoming harder to find or argue for, yet the case for wider modes of thought and practice are becoming ever more pertinent.

Where once students needed to be on campus to access libraries, hold discussions and be in lecture theatres, today they access a far wider range of research material; engage with well constructed, commercially made documentaries and watch lectures given by a globally diverse range of media savvy educators. They can also interact in globally connected discussion forums; write their opinions, research, and blog their thoughts, all from their bedrooms. They don't actually need to be physically on campus; indeed they don't actually need to be at school at all, if acquiring information, learning to read, write and doing mathematics is the sum total of what is deemed, education.

Whole areas of human endeavor are struggling to come to grips with the effects of easily available, connected, textural, visual and audio information and communication. These digital technologies are creating major changes to a range of social organizational systems such as governance and democracy ; national security; law and order; science; news and information gathering; environmental issues and more widely, knowledge itself.

In terms of education the entire way of teaching and the reason for teaching has been thrown into turmoil. Originally universal school education was built as an intrapersonal, (teacher/student) instructional system for training literacy, numeracy and the old liberal arts of

History and Geography. The reasons for universal education were either religious (so holy books could be read {the Scottish and to an extent the American model and increasingly parts of the Islamic world}) or to train a population of bureaucrats and administrators for empires, increasingly complex nation states and/or increasingly complex business models.

During the late nineteenth and early twentieth century, science, vocational education and later social sciences were added to the mix, although studio learning such as arts and craft, performance and sport were more often than not treated as an after thought, a hobby; they certainly were not front and center of most curricula. Up to the very early 1990's school education was still very much a place of intrapersonal instruction, a place for the teacher and a class, although by the mid-1960s television, film and in the 1980s videos began to change educational methodologies. However these technologies were neither interactive nor connected, in the same way digital communication technologies are. Today, around the world the classroom is becoming increasingly globally connected.

In universities; products of medieval monastic traditions built on the ancient Greek academy, the first major changes, away from textural and numerical research and study, occurred around the middle to late 19<sup>th</sup> century, as scientific laboratories took over real estate in the academy and specialised disciplines such as chemistry, material research, biology, engineering and physics became academically recognised disciplines in their own right. For example it was only in 1872 that the first purpose built physics laboratory was opened at Oxford. This of course does not imply that these disciplines were previously either unknown or ignored, but they were not part of the mainstream of university education. Many of these disciplines were taught in polytechnics, specialist schools, through apprenticeships or under

the banner of disciplines such as mathematics, natural philosophy and astronomy. In terms of academic institutions and university education, science and the scientific experimental laboratory are both very new additions. It was only the work of Liebig, in late 19th century Germany, that brought both experimental science and the commercialisation of results into the body politic of universities. And this introduction was certainly not universally welcomed. McNeely and Wolverston write: "*Liebig charged that traditional academics denied not only the practical value of laboratory science but its true status as a discipline reaching the highest philosophical standards. They (academics) 'consider chemistry as an experimental craft...useful for making soda and soap, or for manufacturing better iron and steel, but they are unacquainted with chemistry as a field of scientific research.'* University professors replied, with good Humboldtian reasoning that *'the university must represent primarily theoretical instruction in chemistry, (or any other subject) in which students of all disciplines can take part without any practical-chemical orientation to laboratory apparatus and hands-on techniques. Lectures and seminars should suffice'*" (McNeely and Wolverston, p220).

It is ironic, in light of the present thesis, that one of the great achievements brought about by the introduction of scientific experimental laboratories, was the inclusion of ... "*artisanal techniques, (crafts) a species of informal knowledge, into formal academic disciplines*" (McNeely and Wolverston, p 209). The history of this dichotomy between artisan skill and knowledge and formal academic intellectualism and worth is the dichotomy between Hook the artisan, and Newton the scientist, or Humboldtian science and pure laboratory science, or barber surgeons and medical doctors: the Mr. of medicine and the Dr. of medicine.

It is baffling why the idea of creative workshops and studio spaces have to justify themselves, in the same way as scientific experimental laboratories had to fight for their existents a hundred and eighty years or so ago.

The next major change to occur in tertiary education was the introduction of the social sciences as legitimate areas of social study outside of medicine, archeology and anthropology. Indeed in the 60s, 70s and 80s these areas of research and study, driven by psychology, sociology and critical theory, over-whelmed the old liberal arts and humanity disciplines, such as history, geography, literary studies and the like, spreading out across the academy, touching disciplines as diverse as medicine and the fine arts.

In the 1980s, particularly in the English-speaking world, universities were again rocked by the introduction of what had traditionally been regarded as vocational and often craft and visual-based disciplines, such as design, fine and performance arts, advertising and marketing, accountancy, nursing, education and business. In a similar way to the introduction of experimental science and the research laboratory, these disciplines often found it difficult to adjust to the textural/mathematical-logical nature of the academy and very soon went down the roads of theoretical and critical social science thinking as a way to legitimacy. Leaving behind the studios, the craft skills, and knowledge built up over hundreds of years. The academic attitudes of *'theoretical instruction in which students of all disciplines can take part without any practical orientation to laboratory apparatus and hands-on techniques with lectures and seminars sufficing'* still held the academic high ground, as they still do in too many institutions of today. But an artist without craft or a musician who can not play music or a business student who can only think and write about business are not actually educated in their disciplines. These forms of knowledge need to be applied not simply written.

Even though the academy invited these applied disciplines into the body politic of the university, they have largely turned they're backs on addressing the teaching and skill training requirements in these multi-intelligence disciplines. These intelligences, much as in secondary schools, are too often corralled into under-resourced areas of specialization, and are kept isolated from the university as a whole. Visual, musical, bodily kinesthetic and spatial intelligences are treated as hobbies and pastimes, not areas for serious academic or even social practice across vast swaths of the academy.

Not only has contemporary education and society, as a whole, been fundamentally changed by the onset of the digital revolution; society and education has been increasingly immersed in a scientific mode of thought and methodology of organisation. West writes:

*“...the overt concerns of modern culture appear to be almost entirely dominated by modes of thought most compatible with the left hemisphere, that our view of the world, our educational system, our system of rewards, our aspirations and our value systems are all effectively focused on reinforcing the operation of the left hemisphere (while the more basic contributions of the right are largely ignored or seen as primitive”.*(West p15)

The ascent of scientific laboratory thinking and methodology, coupled with ideas of social science has had a profound effect on Western modes of thought. McNeely and Wolverton explore the growth and limitation of the application of scientific measurement and methodology on human social and intellectual ability and life. They investigate the ideas behind the development of the IQ test, which still has influence over educational thinking (McNeely and Wolverton, pp 228-250).

They, like West, make the point that the sciences dominate modern institutional thinking and practice: *“By the mid-twentieth century, the laboratory had ascended to an almost impossibly dominant status as an institution of knowledge”* (McNeely and Wolverton, p251). This possibly explains the capture of the humanities’ in the Western world, by such research as critical and literary theory and postmodern social theory. The latter are theories built solely on the book, not on the synergy between physicality and observation and the discipline of recording and communicating. Graham Turner writes: *“Once the humanities were fundamental to the idea of the university. Now science is at the core of the research mission of a great many universities (the Australian university), and professional training at the core of its teaching mission”* (Turner).

Writing in 1967 Lynn Wright in her well-known essay, ‘The Historical Roots of Our Ecological Crisis’ wrote:

*‘But it was not until about four generations ago that Western Europe and North America arranged a marriage between science and technology, a union of the theoretical and the empirical approaches to our natural environment. The emergence in widespread practice of the Baconian creed that scientific knowledge means technological power over nature can scarcely be dated before about 1850, save in the chemical industries, where it is anticipated in the 18th century. Its acceptance as a normal pattern of action may mark the greatest event in human history since the invention of agriculture, and perhaps in nonhuman terrestrial history as well’.* These thoughts are just as relevant for knowledge, information and education, particularly tertiary education.

## **The Importance**

So what is the importance of multi-intelligence education? All the signs point to the success of the textural, logical mathematical left hemisphere weighted world of today. However, human beings don’t just use one hemisphere of their brain or two out of at least eight, identified intelligences in their daily lives, so why only educate and train one half of individual human potential? The mind requires the educated function of both hemispheres of thought. Intuition, holistic analysis, visual intelligence, physical skill and hand-eye coordination, amongst other human activities, are all areas that can be trained and educated.

One does not need to be an artist to communicate visually or be an elite sportsperson to throw and catch a ball accurately or a concert pianist to make music. Drawing, hand eye coordination, visual analysis, intuitive processing and the making of music can all be taught and at least some of these intelligences should be taught to all university students. The relationship between learning music and learning foreign languages is a well-known example of the benefits of multi-intelligence education. Google will give the reader 1,000,000,000 hits to back up this claim. There is also a well-researched relationship between physical exercise

and mental agility. There are 5,100,000 Google sites for this proposition.

It can be argued that traditionally universities saw no need to include these activities in their curricula, but today is not yesterday. Today students do not spend a great deal of time moving books around or physically searching amongst the dusty corridors of libraries, using an intuitive, learned, spatial experience to hunt down research material. They often hold tutorial study groups from a distance, disconnected from face to face, interpersonal conversation and discussion. They lineally search on-line and seldom physically transpose notes by hand from their research material. They tend to cut and paste or digitally highlight, which leaves out the contemplation and physical observation of the ideas written; they sit in front of screens.

Is that a problem? Not entirely, but it is limiting. In terms of the transmission of knowledge, it is certainly problematic. Using a computer is really a two dimensional learning environment. Physically, the machine only needs the repetitive use of a body's fingertips to work. Visually, a screen and keyboard, in other words the visual plane, are quite unlike books.

The digital visual plane sits unmoving, at under a meter in distance from the eyes and the range and colour are constant. The light is artificial and digital images are two dimensional with no phenomenology of texture, weight, bulk, smell or age.

The computer is an enclosed, self-contained learning environment. Taking vision as an example: In his book *Frames of Mind*, Gardner calls vision, spatial intelligence (Gardner p42) and visual thinking (Gardner p189); others call it visual intelligence or visual literacy (Moore, Dwyer). De Bono calls it a component of Design Thinking (De Bono). They all regard multiple focus vision, an intelligence at the heart of knowledge and understanding. So the very great difference is in the exercise and use of the eye over varying distances and light intensities, directions and sources whilst reading printed matter. However, it goes beyond just the reading of the words when talking about the differences between book and digital reading.

Digital reading always remains constant, whereas book reading has other narratives- the age and smell of the book, the touch of the pages, the weight and colouration of the book, the style and publication, whether the book is a hardback or softback and the context in which the book is read, are all processed as part of the knowledge transfer.

The content of books is also contained, digital reading allows for hypertext outside of the structure of the material being read. This leads to a break down in the argument, as multiple voices from hot links to other sources start to appear in a single reading session. Nicholas Carr in his book *The Shallows*, spends a considerable amount of time discussing the changes screen reading is having on thought, memory and the way information is being processed. The eye, the visual intelligence, actually takes in more when reading a book than reading from a computer screen. There is physicality to a book. How it is held, how the reader turns the pages, the movement of the book whilst being held, how information is sought, how information is transferred from a book, all require a number of different intelligences- spatial, kinesthetic, visual, literary, hand-eye. Indeed the printed matter becomes an immersive reading environment while a computer screen remains a computer screen. What is even more important is that the brain and the mind move, from one intelligence to another, as a different intelligence is required.

Visual literacy, apart from reading, can best be taught in a studio. On a computer screen the experience is limited and enclosed; on a computer, information remains constant.

In the phenomenological world it is in a state of constant flux.

What becomes more interesting when considering studio learning is if we consider what neuroscientists call peripersonal space. This is the provable idea that human existence actually exists beyond the physical manifestation of the body (Merleau-Ponty), within the space taken up by the reach of our arms, legs, breath and movement through physical space.

This peripersonal space expands exponentially if further areas are mapped in our mind (Blakeslee & Blakeslee). For example we drive a car as an extension of our being; if a driver

cannot perceive or sense exactly where the parameters of the passenger side of the car is, then they could not drive a car. In an accident, a car crash victim will personalise both themselves and their car as a single entity, 'I was hit from behind!' Blakeslee & Blakeslee contend that crane drivers extend their peripersonal spatial reach to include the crane's hook, perhaps thirty meters from the crane driver's mind, in the same way as we are conscious of our finger tips when touching something while the rest of the arm becomes unconscious (Blakeslee & Blakeslee, p4). A more extreme example of mapping beyond the confines of the body is found in Wade Davis' book *Wayfinders*. He tells of deep-ocean Pacific Island navigators who extend their being across vast distances of empty ocean by conjuring, or more accurately, mapping their destination in their minds; they seem never to get lost (Davis). In many ways drawing works in peripersonal space. The act requires an extension loop between the object being drawn and the pencil nib making the mark. It is as if the physical body, the intelligence and the space taken by the object being drawn become one complete environment.

The evidence is strong that the physical plane of itself is too limiting: the mind can extend beyond the body and beyond the immediate physical space taken up by the body. Shankar Vedantam talks about the 'hidden brain', an unconscious brain that makes us fall in love, choose something or someone on the basis of a name, breathe without being conscious of breathing, and act on an improvable belief (Vedantam). The foregoing suggests that it is time to take stock of what we are doing educationally, by relying so heavily on both a tool of such limiting experience as the computer and the almost exclusive education of just two intelligences. There is absolutely no doubt that human beings function and learn on a multitude of levels and in a complex matrix of perceptual, physical spaces. As a character in Neil Stevenson's wonderful novel *Quicksilver* states, "*No linear indexing system is adequate to express the multi-dimensionality of knowledge*" (Stephenson).

### **The Proposition**

What this paper is proposing in regards to actually implementing visual, studio-based learning paradigms across the textural, mathematical-logical weighted disciplines of academia is relatively simple. I believe profoundly that all students should learn to think and process visually, that is to be able to draw competently and communicate visually. Drawing, the making of marks is humanity's oldest cultural activity. It has been used to tell stories, record events, create and embellish identity, record observation, make social and political comment, clarify complex ideas, rationalize organizational structures, effect human emotions, capture fleeting thoughts and idly pass the time. It is also the basis of all design be it a film set or a public building, a poster or a computer circuit board. Scientific illustration has been an integral and crucial part of the scientific process across the centuries, yet today it has largely fallen into disuse, particularly in undergraduate programs. Stephan Bayley and Terence Conran titled their 2007 book, *Design is Intelligence made Visible*, it is just as correct to say that drawing is intelligence made visible.

By being discarded, an important analytical and observational tool and indeed a vital educational tool is being neglected. All students should be competent in three forms of drawing- Observational drawing, freehand perspective drawing and visual process and communication drawing and this paper posits that these three forms of visual thinking should be taught across the academy, to all university students. A single unit per semester or even a unit per year would suffice. If it were to be every semester (six units per degree) then each form of drawing would have two parts. An introductory, exploratory, skill and knowledge based level and an advanced, sophisticated application of the newly learnt intelligence.

Visual process and communication drawing should begin this program. Drawing comes in many forms and is used for many different reasons. This unit or units should be an introduction to mark making and the keeping of organized, sequential visual diaries. It should include research into a range of drawing materials, mark-making tools and drawing styles.

From doodling ideas and simple cartoons to drawing exercises in observational drawing. I have personally never yet met a student who can't be taught to think visually and draw what they see in a manner that communicates their idea, to another person.

Observational drawing is self-explanatory. Julia King writes, *Scientists like Bakker and Folkens as well as Harvard biologists Bert Hölldobler and E.O. Wilson—all of whom routinely reproduce their visual scientific observations on paper—once were the rule. Today, they are the exception. Up until about the mid-1950s or so, basic illustration courses were a regular and required part of a scientist's education. Today, by contrast, science training as well as funded research is focused on the design and implementation of experiments, leaving students and practitioners alike precious little time to hone sketching and illustrating skills.*

*There are signs of a renewed interest in science illustration, however. The University of California at Santa Cruz, for example, now offers scientists a graduate certificate in scientific illustration. Other schools, including the University of Michigan and San Francisco State, offer scientists undergraduate courses' in basic illustration.*

*What's more, scientists themselves are realizing, that illustrations produced by sophisticated photographic and electronic duplication equipment, such as scanning electron microscopes, are often inferior to the ones they produce themselves. "The SEM sees too many details, giving an almost surrealistic picture rather than a picture of what it is you need to explain," says biologist Holidobler. As a result, many scientists, including Harvard's Wilson—an accomplished biological illustrator as well as a noted sociobiologist—consider drawing to be one of the most valuable and irreplaceable analytic tools available to them.*

Observational drawing, 'makes scientists better scientists because it requires them to closely scrutinize an object or artifact, which works to sharpen their observational skills and improve their accuracy'. (King)

King concludes her article by quoting the following, *The lack of emphasis on drawing in today's science programs is "absolutely egregious," according to paleontologist Bakker, who like Folkens, regards drawing as an indispensable scientific tool. "A basic illustration course is as indispensable to a scientist as a basic nutrition course is to a medical doctor," says illustrator and scientist, Folkens. Adds Bakker: "Drawing is part of thinking and observing. It is what distinguishes us from other species." Further, he says, "I urge all scientists to take at least a seminal course in drawing- from someone who knows the objects they are studying".(King)*

Freehand perspective drawing teaches students how to represent space, volume and depth and adds to the quality of their visual communication. It teaches the effects of light, shade and proportion and gives them a powerful communication tool. Having observed the emotional effect of students gaining confidence in this task, the analytical and intellectual benefits of offering this drawing technique to students is immeasurable.

Visual process and communication drawing is basically ways of visually processing ideas and communicating ideas. It can take many forms, using a range of visual techniques and methodologies.

Regardless of whether the program was three units or six units, a range of supporting knowledge constructs and subjects should be added into the curricula units above and beyond drawing. Much of this material could be added as components of visual process and communication drawing.

A thorough introduction to colour, colour use and colour mixing would benefit society generally. Too many members of society are colour ignorant or essentially colour blind. Colour is one of the most important attributes of the human condition, affecting everything from emotion to recognition and intelligence. Learning and applying knowledge of colour also has great educational benefits. It trains the eye, thus improving observation; it improves hand eye co-ordination and lends depth to the human experience by adding knowledge to the many facets of a ubiquitous element of everyday life.

Mixed, mark-making materiality is crucial in the experimental nature of visual process and communication drawing. The use, experimentation and mastery of different materials are an intellectually broadening and emotionally fulfilling activity. Because the experimentation relies on trial and error and outcomes are not predicable there is a freeing of intellectual engagement and the constructing of experimental curiosity. The process of learning the mastery of various mark making tools and materials allows the student the freedom to fail, as there is no right or wrong answer. By succeeding by failing a student becomes a better risk taker and explorer.

Finally as part of the freehand perspective drawing curricula I would recommend an introduction to physical 3D model making techniques as a further tool of analysis. To understand and build structure and form is an invaluable understanding for all students. It is also an activity that teaches hand eye co-ordination, attention to detail, intellectual planning and methodology. By making physical models and drawing from observation; touching and feeling and handling an object and turning it over and over and tracing it out with your fingers, you discover its physicality and utilize a range of intelligences.

### Conclusion:

Although university undergraduate curricula are already under intense pressures concerning content construction and subject inclusion, and individual disciplines mount legitimate arguments for more time being spent by students on discipline-specific knowledge, methodology and information requirements, this paper posits that there is an underlying imbalance between the specific education of textural and logical-mathematical intelligence and the dearth of multiple-intelligence education, particularly visual and bodily-kinesthetic intelligence, across the university sector.

As business and science methodologies increasingly dominate chancelleries and influence the core philosophies and missions of tertiary education, the case for studio-based, craft-focused, multi-intelligence education across the academy is being ignored

Information transferal is no longer the preserve of the academy and as digital technology continues it's ever more invasive takeover of human communication, the case for the education of physical craft skills and physical intelligence becomes ever more relevant. It is the overriding argument of this paper that all disciplines would benefit by having graduates who have been trained to use their eyes and spatial sense, to observe and who can communicate what they observe, using the sophistication of their own physical beings.

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# PROFESSIONAL VALUES IN YOUTH EDUCATION

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## Abstract

Human factor plays an important role in sustainable development of a state without which the planned changes would not be possible. It determines the importance of preparing future specialists. Education acquired by students lays the basis for strengthening future welfare. Higher education institutions are in charge of implementation of different study programmes by carrying out the established aims and objectives. Improvement of the study course content ensures preparing good and competitive specialists. Often, problems arise due to students' poor awareness of the profession, the potential field of activity, the necessary knowledge, skills and attitudes. Internal and external motivation is the influential strength, which makes the process of learning a profession more focused. A successful career relates to an appropriate career choice in line with the interests and abilities. In order for today's students to successfully join the labour market, acquiring values important for the profession must be included in the educational process.

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**Keywords:** Education, motivation, career, professional values

## Introduction:

True humanism, freedom and democracy bring forward human development, its high quality, which takes into account individual needs and abilities according to its position in the public relations' system, as major public wealth. Enduring value of many of the historical and social changes is the tendency to reach harmonious consolidation of interests of individuals and society. Our society oriented towards democracy and legal relationships more and more subjects its social activities and operations, internal and external policy, material and spiritual resources to caring about individuals, creating and improving the environment for their actual development, releasing each individual's unique creative potential.

Today's youth is tomorrow's active representatives of the society, highly qualified specialists – Latvian fortune and advantage. Educated and creative people are one of the main priorities for achieving the strategic aim of the Latvian National Development Plan for 2007 - 2013. This is why modern education is directed towards the person that has to learn lifelong. That is an educational paradigm of the 21<sup>st</sup> century which becomes more successful by acquiring professional values in the youth education process, where educational and upbringing models help youngsters acquire, be aware of and accept certain values. Relation of youngsters' chosen profession to implementation of their personal needs and interests is as important.

Preparing high level professionals, higher education institution must provide the possibility to acquire values important for the profession. There are different professions and fields of activity for these professionals; therefore it is important to establish the main professional values, which must be paid special attention to in the study process.

The aim of the research: to explore which values significant for the profession would be important to activate in the educational process.

## Education as a Value

Education with good reason is considered to be a human activity field that most directly influences person's quality of life and welfare. J. Valbis (Valbis, 2003) points out that main task for the education system in a democratic and humane society is comprehensive development of individual's abilities and potential, his or her preparing for lifelong learning, creative working life and responsible participation in society processes. World's economic and social development becomes more and more dependent of the aggregate of individual's knowledge, skills and attitudes therefore importance of education in development of society welfare increases constantly.

Learning, teaching and upbringing lay the basis for education. Learning and teaching is directed to human brain, upbringing – to development of personal qualities. An individual acquires education in some field as a result of learning, but attitude towards the profession and work he or she acquires as a result of upbringing. (Kramiš, 2010).

In the UNESCO International Commission Report on tasks of future education experts name fundamental learning types: learning to know, learning to do, learning to live together, learning to be and learning to be able to choose. J. Grants (Grants, 2007) analyses these education aspects in the context of Latvia. Learning to know is not only accumulation of information but it is more a skill to acquire education, the joy of understanding, cognition and revelation. As a tool it allows an individual to sufficiently understand one's surroundings to live in dignity, develop professional skills and communication skills. Learning to do – it is application of the education for future employment. With increasing importance of information and knowledge, former perceptions of professional skills are aging to the fore in a personal capacity. Learning to live together is an extremely important skill. To understand others, one must first get to know oneself. When you create an adequate picture of the world, education must help to determine the identity. Only then will people be able to truly understand other people, their attitudes and behaviour. Learning to be – education should facilitate comprehensive development of every individual - psychic abilities and physical fitness, self-responsibility, development of intellect and spiritual values. All people have to have a possibility to develop an independent, critical thinking and development of own judgment. A special place in education must be given to development of imagination and creativity. Learning to be able to choose - meaning free awareness of one's opportunities and resources that provide people with the possibility to choose. The more possibility of choice is facilitated, the more sense of responsibility is facilitated. A person becomes responsible for what he or she chooses.

Already in childhood both - family and school should disclose the value of education to the child, which is why during a young person's learning process education must be strengthened as a value in the scale of values. This is confirmed by responses in the survey of respondents working in a profession acquired at a higher education institution (n = 350), where 67.5% of them believe that education has made a major contribution to their professional career.

Importance of Motivation in the Education Process Students' performance depends on three factors: the skills and abilities to take appropriate action, the resources (information and other resources), and motivation to pursue the activity. A. Vorobjovs (Vorobjovs, 1996) stresses that motivation is always a complex of initiatives: needs, motives, ideals, aims, interests, valuesorientation and other elements directing and contributing to behaviour. It acts as a loosener of individual's potential capabilities. The term "motivation" in the study process can be viewed in three different contexts:

- an attempt to identify student's needs and aims, which appears as a motivator for activity;
- activities that are preferred and alternative choices;

- situations in which the teacher seeks to influence students in order to achieve high performance and enhance their quality.

The importance of the above mentioned statements of professional learning motivation is characterized by student needs and objectives named in the survey. The most important ones in the view of youngsters are revealed in the diagram as percentage (n = 400) (see Figure 1).

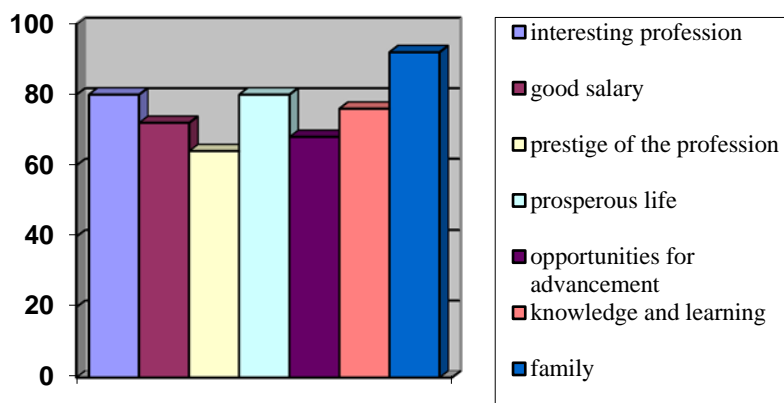


Figure 1 – Needs and objectives of youngsters

Students see family foundation as the most important need and aim, which is very important at this age. The need to acquire the profession that corresponds to personal interests and is prestigious in the community is appreciated very much. In order to implement these needs, the aim of young people is knowledge and learning, growth opportunities by improving themselves, which generally provide a prosperous life.

Evaluating students' thoughts on preferred activities of the study process, and alternative options, it can be concluded that a large majority of students are satisfied with content, quality and organization of lectures, seminars and practical training. Each student's individual work and feedback possibilities, which are not always fully utilized, contribute to accountability. Teachers' selected working methods and forms of organization of activities which can affect students' learning outcomes and increase the quality of acquisition of the profession play an important role.

Teacher and student collaboration in the study process reveals the relevance of internal and external motivations that are strong factors influencing student activities. External motivation is based on external encouraging circumstances such as other people's behaviour, rewards and punishment, assessment and feedback of the people around in the given situation.

In the case of external motivation, students are mostly focused on results. Depending on the theoretical framework for external motivation there can be both positive and negative effects. In the case of internal motivation student's behaviour is determined by the interest in the work itself when it is performed for the sake of activity itself rather than for achievement of any external awards. If students try to find additional sources on a topic they are interested in or that is relevant to the profession, then you can safely say that they're showing internally motivated behaviour patterns of developing knowledge, skills and attitudes.

For students to succeed in educational process, it is important to take into account the inherent human desire for social recognition of one or more groups; sometimes being reluctant to strive for attention and power, but the desire to be discreet, to think about health and be thrifty; willingness to trust one or more people of whom also to wait reliance; to adopt appropriate values and norms, to be precise, punctual, uncompromising, hate compromises, not possess a sense of humour, to strive for own field of activity in which he or she wants to be a independent and assume responsibility.

R. Baltušīte (Baltušīte, 2006) marks off several types of motivation:

- Cognitive motivation, which may be internal (curiosity, interest in the new, active learning) and external (knowledge of no interest, rationality comprehension).
- Achievement motivation can also be external and internal: external - personal desire for certain reputation, the desire to gain recognition, expressed as ambition and prestige; internal - people are aware of their own personal growth (intellectual pleasure, the pleasure of revelation).
- Obligation motivation - external type appears as a focus on other people's reactions, internal - taking responsibility, being accountable to oneself, but the successful execution of the obligation is a determining factor in the self-regulation of behaviour.

Themes related to self-determination and preparation for independent life begin to take the main place in young people's motivation. Most commonly an individual at an early age takes into account consciously defined objectives, plans, intentions. V. Muhina (Мухина, 2000) believes that prospective motivation becomes a powerful factor for young people: preparation for choosing the profession, implementation of important aims. Motivation is also influenced by the learning situation, the circumstances in which student action takes place and which are structured by the teacher, as well as the cultural environment.

V. Boroņenko (Boroņenko, 2007), by studying the problem of high educational value and low motivation to learn, names as criteria: negative motivation - learning not to receive a bad evaluation and not to be blamed; hidden motivation - the student wants to learn and acquire knowledge, but hides it from others, from classmates; targeted motivation - the student consciously learns and acquires knowledge without compulsion from the outside. Lack of motivation is one of the reasons for termination of studies and failing to obtain a professional qualification. The problem arises when the young person himself or herself does not understand the need for education as the value; they lack motivation to learn, while the society is not able to find effective methods and tools for purposeful motivation.

Lack of motivation can be solved by a different approach to studying when the acquisition of knowledge obtains qualitatively new direction - self-determination. Self-determined learning is an independent learning process in which students actively participate in the management, organizing it, as well as analyzing, researching, and assessing. In other words, utilizing the opportunities offered by studies, students develop their learning ability, act in their own interests in order to improve their quality of life.

### **Career and Factors Influencing its Formation**

Youth is an important phase in the process of personality formation, when the subjective sense of the world, belief system expressing the subject's attitude to the world, his or her values orientation stabilizes (Tunne, 1999). During this time career-related decisions (Jigău, 2009), formation of one's definite life-style takes place. Successful career opportunities enable people to fulfil their potential and interests personally, professionally and socially. Career development theorist E. Ginzberg (Ginzberg 1975) divides the process of career choice into three different stages, with the realistic stage between 17 and 25 years of age. At this stage young people explore sources of information considering all factors of impact and make the final selection. The decision-making process is life-long, and one searches for the optimal choice of career planning in an attempt to align their objectives with the reality of the professional world.

Career is often perceived as a process that depends on one's occupation, but a modern concept of career reveals much more. A successful career is seen as a consistent sequence of roles throughout an individual's life, at the same time including personal freedom, self-examination and personal understanding of success. Peterson, G. W., Sampson, J. Sun and Reardon, R. C. (Peterson, Sampson, Reardon, 1991) demonstrate the formation mechanism of career as a three-level hierarchy in the form of a pyramid (see Figure 2):

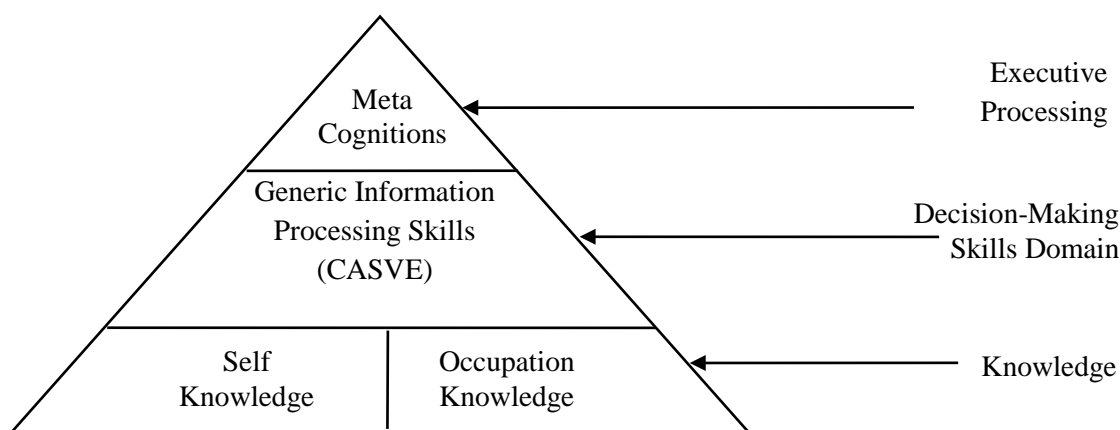


Figure 2. Pyramid of Information Processing Domains in Career Decision Making (by Peterson, G. W., Sampson, J. P. and Reardon, R. C., 1991)

Self-assessment, knowledge of professions and socio-professional environment interact and modify the career-oriented behaviours. Basis covers the fields of knowledge: about oneself – self-acquaintance (values, interests, suitability) and about the world of employment (education and training possibilities, information on employment, occupations, professions, work). The middle level (CASVE) includes information processing fields oriented to problem-solving and decision-making in five stages: Communication, Analysis, Synthesis,

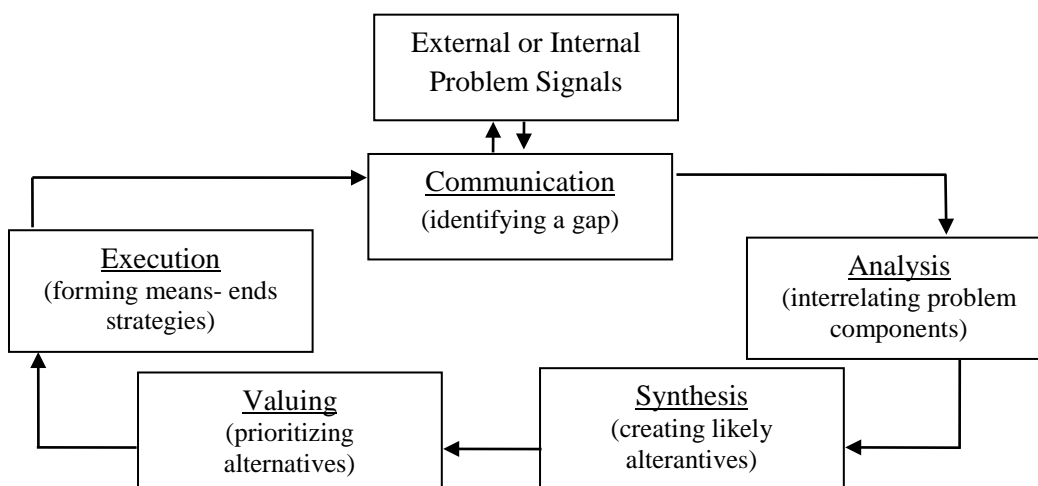


Figure 3. The Five Stages of the CASVE (Communication, Analysis, Synthesis, Valuing, Execution) (by Sampson, J. P., Peterson, G. W., Lenz, J. G., Reardon, R. C., 1992)

C – Communication. A person is aware of the need to make a decision, feels existence of the problem with regard to information in his or her possession that may be required to change their situation for a desired one. Contacts with specialized institutions, learning and practical workshops as well as communication with people are very important at this stage.

A – Analysis. It is the degree of understanding oneself and the options available, where the individual analyzes the overall structure and components of the given problem and prepares an action plan in mind. This stage requires deep understanding of oneself (values, abilities and interests), interpreting the data of personal problems, self-observation, gathering new information, reflection and understanding the relationship between oneself and the chosen profession.

**S – Synthesis.** This process is aimed at developing realistic alternatives, application of divergent thinking based on existing knowledge. Of the many apparently acceptable interim solutions those solutions that are furthest from one's personal interests, values and abilities are gradually eliminated.

**V – Valuing.** At this stage selection of the school, studies, profession and specialization takes place. Implementation of the personal development model as the most ideal choice is happening. Emotional component plays an important role.

**E – Execution.** At this stage thoughts of career development are converted into action, characterized by implementing own choices. This stage covers implementation of the decision and solving the identified problems in the first stage.

Processing field that is a reflection stage of career decisions is associated with meta-cognitive abilities; the function of this mechanism is to evaluate and control the way in which the decision is made (the previous level of the pyramid), as well as the accuracy towards personal values, interests and abilities, information on professions (basic level of the pyramid). Three types of skills are of particular importance in the meta-cognitive process: intuition, self-awareness, and control and monitoring (Jigāu, 2009).

There are many initiatives for young people's career development in Latvia. Unfortunately, the number of unemployed in the country is also rising fast among young people, and there is evidence of young professionals leaving for work outside the country; therefore it is important to ensure acquiring professional values in the educational process and young people's awareness of employment and career opportunities in the our country.

### **Acquisition of Values Significant for the Profession**

Values are specific social characteristics of the surrounding world of objects, which show the objects' positive or negative role towards the individual and the society. Facilitation of value formation plays an important role in upbringing today's new generation. Its positive process is equally important to children, teenagers, young people, their families and the society as a whole. Values are recognized as an important factor influencing the direction of a personality in the whole world.

The classification of values is much forked. The task of higher education institution teachers is to help students to acquaint themselves with, learn, recognize and accept significant values of the profession because they are critical to their future career. Interaction of students and teachers facilitate formation and development of professional values, expression of inner potential, spiritual growth, and the need for self-implementation.

In every profession, according to the specifics, there are three groups of values:

- Professional affective or emotional values - respect for one's profession, being proud of it.
- Professional cognitive values - necessary knowledge for the profession, knowledge of communication, its importance, etc.
- Professional psychomotor values - professional practical and theoretical skills and abilities as values which can only develop in practice.

If young people understand their life purpose and objectives, if they have faith in themselves and the people around, the awareness of the existence of higher spiritual values such as truth, justice, beauty, morality, all of this brings the power and the will to act, to strive ever forward to higher ideals (Tunne, 1999). Young people's choice of values is influenced by: the character, temperament type, gender, intelligence, the way of thinking, upbringing, family, environment, aims, experience, perception of the world, social norms of society, diversity of interests, activity, employment, ability to reason, analyse and adapt, self-esteem and self-evaluation, independence and dependence, well-known public persons, idols, etc.

Communication plays an important role in formation of professional values which can be divided into 3 stages: I myself, others, and contexts. In "I myself" stage communication

process and its result depends on the individual's own behaviour, thoughts, feelings, perception of the partner in given situations. In "Others" stage partner's behaviour, thoughts, feelings, an individual's perception in given situation dominate. The context characterizes environment of communication and conditions that foster or hinder communication and significantly influence the formation of professional values. The context includes the physical space (room furnishings, lighting, etc), social space (family, group, university ...), psychological space (benevolence, ignoring etc.), cultural space (tradition, religion, etc.).

Assessment of the personal value system is one of the components of making the right choices in life; it helps to develop self-confidence and is particularly useful for building motivation for work. In his research psychologist Schein E.H. (Schein, 1990) has concluded that there is a close link between the system of values, needs, expertise which are believed in and the chosen career type. The author has determined eight groups of values and called them a professional career "anchor":

\*Technical / functional competencies. They are related to a desire to "be an expert" in a particular area, with the approval of own mastery and development of horizontal career.

\*General manager competencies. The professional aim is to get new organizational experience, make a decision, extend the sphere of influence, and strive for financial success.

\*Autonomy / independence. It is related to the extension of the concept of freedom, avoiding burdensome obligations and restrictions. This group of people have a heavy emphasis on independence, their objective is to work independently and take responsibility for it.

\*Security / stability. The main driver in this case is an emotional relationship with the institution, the feeling of loyalty. Employees, who have expressed strong need for security, do not seek to change the existing environment.

\*Creativity. Creative people are happy to learn something new about themselves, about the organization and its subsystems. They notice problems and eliminate them, as well as seek to introduce changes and innovation.

\*Serving / trust purpose. In this case, the primary aim in life is to implement the values of humanism, solve political problems, help others, cure, and teach.

\*Challenge. All the operations are based mainly on the desire to overcome difficulties and to take risks. People, who love challenges and enjoy working in an environment that offers the fight and competition.

\*Lifestyle. People, who find this value important, try to maintain balance between the different aspects of life - mainly between work and personal life.

Students of various specialties, assessing their personal relevance, determine the place of given values in the professional context (see Figure 4):

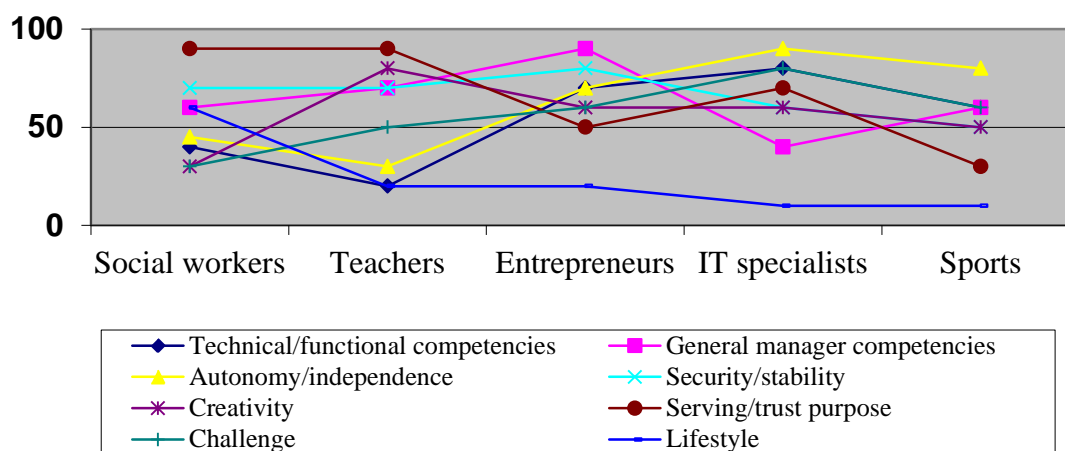


Figure 4. Relations between the groups of values and future professions of students

Interpretation of the data reveals that serving / purpose trust and security / stability are the most important values for future social workers, but serving / trust purpose and creativity are most important for students of the study program "Teacher". Future business professionals give the highest score to general manager competencies and security / stability, future IT specialists - autonomy / independence and technical / functional competencies. In contrast, the future sports-related specialists have ranked autonomy / independence, general manager competencies, as well as technical / functional competencies in the scales of values at the top positions. Based on E.H. Schein findings, it is advisable to activate the named groups of values in the study process.

A group of experts (Baumanis, Jaunzeme, Tisenkopfs, 2007) established a vision of "Individual – Society – State – 2030 value based sustainable development in Latvia". The report points to the fact that so far the Latvian Development Planning has been largely built on priorities and interests. Experts recommend that national and community core values should be nominated as Latvian Sustainable Development leading-motive. Human is the central element of sustainable development – it is equally the development objective, implementer and promoter, who embodies the values in practice. 21<sup>st</sup> century vitally needs ideals to which people would be able to rely on, which would address them and motivate for participation. Growth of the society is determined by individual's desire for excellence. The community's growth depends on an individual's propensity to excellence. Striving for long-term values brings more wealth than striving for well-being itself, as prosperity does not create ideals, but ideals can create wealth and also happiness. Individual's intellectual, emotional, moral and spiritual development, personal growth and the desire for self-expression – these are aspects that have become an integral part of a prerequisite for sustainable development in many countries. The vision group recommends that Latvian sustainable development is based on five core values: respect, excellence, knowledge, deep roots, and children.

Respect - self-esteem, mutual respect is the foundation of society. Respect constitutes of full-fledged involvement in the economic life, in the society, fulfilment of one's goals. Respect plants confidence and pride in oneself, own country - I am able, skilled, safe. Respect names ethical standards in economy, politics, makes the responsibility and conscience speak. It loosens individual's capability, allowing safe operation.

Excellence - everyone can be excellent in their field – everyone has possibilities. Excellence starts with activity and dedication, it is strengthened by education, complemented by technology and crowned by culture. We must strive for the excellence of individuals, enterprises, regions, and the nation. Only being excellent, we will not be lost in this globalized world. All the past honour and virtue is already excellent! Each present achievement is excellent! This value should be engrafted on the national branch, cultivated and brought to maturity anew.

Knowledge is both - the value and the means for prosperity of a small nation - as knowledgeable, educated and creative Latvian people and enterprises will be, as well we live. Knowledge is the means for competitiveness and integration of the society. Only a wise and educated society will be able to dominate the technology and the market and ensure sustainability.

Being with deep roots is an ancient value, but to be interpreted anew. We need to be open in the globalized world, otherwise will not be competitive, but we must keep deep roots in our land, traditions, society, and culture; we must protect our identity. Deep roots provide new opportunity for the economy and society to present their uniqueness in the globalized world. This would decrease youngsters' desire to go in search of profits outside the country and would promote accountability for their native country's growth. Latvian ex-president Vaira Vike-Freiberga (Vike - Freiberga, 1997) specifies three different components in the definition of national self-confidence:



- In the case of Latvians - understanding of their Latvian being or ethnic characteristics, including language, culture, life style, value system, place of residence and shared history.
- Deliberate and positively painted national identity where people consciously feel themselves as components of a greater community and identify themselves with the people in general, not just with their neighbours or fellow countrymen.
- National consciousness as a Latvian citizen is not necessarily related to the nationality or ethnic background.

Children - Latvian children should be named as long-term value! The future is only an illusion, if demographics, family policy, and the education system are not right. Large families and dynasties are needed. Every child able to be born is needed for Latvia. Innovation and knowledge society begins with kindergarten! (Baumanis, Jaunzeme, Tisenkopfs, 2007). Values named by the group of experts are important for all professions; therefore they must be revealed in the study process in the content of different courses.

### **Conclusion:**

Evaluating theoretical views summarised in the research and practical research results the following conclusions can be drawn:

- An educated and creative individual is one of the main priorities of Latvia. Importance of education is rapidly increasing in developing society welfare.
- Motivation activates internal resources of youth in acquiring education and encourages acquisition of professional values. Lack of motivation to study is one of today's education problems. Student self-motivation implements achievement of a self-determined learning outcome.
- Successful career enables people to fulfil their potential and personal, professional and social interests. Latvia has a broad framework for young people's career development, but due to unemployment young professionals leave for work outside the country.
- Purposeful activity helps building young people's awareness of the value system and promotes professional values' identification process. One of the objectives of higher education institutions is to provide acquisition of professional values in young people's education process. Students' values in the context of the chosen profession certify their compliance with generally accepted professional values. They discover a desire to develop independence, self-development, susceptibility, creative activity, development of knowledge, communication skills.
- Core values of the nation and society have been brought forward for ensuring Latvian sustainable development. Human is the central element of sustainable development – it is equally the development objective, implementer and promoter, who embodies the values in practice; therefore particular attention must be paid to including the proposed values in the content of study courses.

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# DEVELOPING SELF-AWARENESS AMONG STUDENTS: AN ISLAMIC PERSPECTIVE

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## Abstract

Modern theories of psychology and management show that people often lie to themselves and to others (Tedlow, 2010). People lie to themselves for two main reasons. First, people experience cognitive dissonance and find many excuses not to change. Second, people experience learned helplessness. They become passive, helpless individuals. In both cases, people protect their identity by modifying their memories to ensure consonance (Tavris & Aronson, 2007). Modern psychological theory distinguishes between conscious thoughts, unconscious thoughts and automatic thoughts (Kahn, 1999). We developed a modified version of a Thought Record (Greenberger & Padesky, 1995; Kahn, 1999). We explained to 120 undergraduate students how to record their thoughts, feelings and behaviour. They were then given a non-threatening task and asked to keep records for ten consecutive days. We analysed the data and we discuss the practicality of using Thought Records so that Muslim managers may act in the workplace in accordance with Islamic ethical norms.

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**Keywords:** Psychology, emotional intelligence, Islam

## Introduction:

Leaders are often in a state of delusion. According to Tedlow (2010), many leaders refuse to change by lying to themselves. They do not lie to themselves intentionally, but unwittingly. He reviews the history of a number of large successful companies whose leaders could not accept that their business environment changed and they simply lied to themselves. Tedlow's (2010) study triggered in our minds two questions: why do people lie to themselves and how can we help people to become more aware of their own thoughts, feelings and behaviour? He partially answers both questions by pointing out that cognitive dissonance (which we will define later) is one of the main reasons. Tedlow (2010) argues that to overcome this self-delusion, individuals need to have superior emotional intelligence (which we will define soon). Although his work is fascinating, Tedlow's explanation of the role of cognitive dissonance is limited. Furthermore, his prescription to overcome self-delusion is unsatisfactory. This encouraged us to better understand the role of cognitive dissonance and to understand what practical means can be used to overcome self-delusion.

## Aims of this study

The aim of this study is to develop a way of helping people to become more aware of their own thoughts, emotions and behaviour in order to make it more difficult for them to lie to themselves. As this is a preliminary study, our focus is on experimenting with university students.

## Emotional intelligence:

There have been some controversies about the construct of emotional intelligence (Luthans, 2011, p.233). Many scholars argue that it seems to be a valid concept but more research is needed. However, "*growing evidence for successful applications to the workplace*" means that experts are hopeful that the concept can be better understood and found to be valid

(Luthans, 2011, p.233). Luthans (2011) notes that emotional intelligence comprises five elements: self-awareness, self-management, self-motivation, empathy, and social skills. Tedlow (2010) argues that leaders lie to themselves because they lack self-awareness and self-management skills. As Tedlow (2010) points out, one of the reasons why people delude themselves is because ignoring troubling facts and not changing is easier than acknowledging troubling facts and changing. It should be noted that most people do not consciously ignore facts. They ignore facts without being aware of what they are doing. To understand this statement, it is necessary to briefly discuss three things: cognitive dissonance, unreliable memories and automatic thoughts.

### **Cognitive dissonance:**

Tavris & Aronson (2007) define cognitive dissonance as *“the hardwired psychological mechanism that creates self-justification and protects our certainties, self-esteem and tribal affiliation.”* Cognitive dissonance is, *“a state of tension that occurs when a person holds two cognitions (ideas, attitudes, beliefs, opinions) that are psychologically inconsistent.”* When faced with cognitive dissonance, people have two options, they can change their behaviour, emotions or thinking, or they can justify their existing behaviour, emotions or thinking to avoid having to change. There is an image on the Internet that says it all. There are two buildings next to one another. At one building, there is nobody queuing up to get in. At the other building, there is a long queue of people trying to get in. On top of the first building, there is a sign that says, *“an inconvenient truth”*. On top of the other building, the sign says, *“a convenient lie”*. Cognitive dissonance is often choosing between a convenient lie and an inconvenient truth.

Researchers have shown that we often make excuses for ourselves without realizing it. Making excuses is often an automatic reflex. Having made an excuse for ourselves, our memory then re-writes our memories to make our excuses plausible and rational. This process of making excuses and selective remembering is automatic (Tavris & Aron, 2007). It should be highlighted that cognitive dissonance helps us better understand how people deal with ethical dilemmas. Tavris and Aronson (2007) relate one of the most psychological experiments ever done: the Milgram experiments. Gross (2008) provides a good overview of this experiment. At the end of World War II, many people were shocked by the millions of people murdered in German concentration camps. The typical explanation was that *“German Are Different”* and that they are more likely to obey authority than Americans. Stanley Milgram set up an experiment in 1963 to prove this. The original idea was to collect data in the United States and then collect data in Germany. The assumption was that American volunteers would more readily disobey people in authority and German volunteers would more readily obey people in authority. The experiment was set up in the following manner:

- Volunteers were told that they were helping out in a study of memory and learning
- A technician (in uniform) whose role was to encourage volunteers to continue with the experiment
- A subject (an actor) who would pretend to get electrocuted

Volunteers were told that a participant will be given material to learn. Every time they get it wrong, they will be given small 15 volt electrical shocks. For volunteers to understand what a 15 volts shock felt like, they were given a small shock that they could barely feel. Volunteers were then told that if the participant didn't learn the material, the voltage would be increased to 30 volts and then to 45 volts and so on. About 65% of volunteers gave life-threatening shocks of 450 volts. The fact that two-thirds of Americans gave the maximum electrical shock meant that the *“German Are Different”* hypothesis was rejected. Much has been written about the Milgram experiments and scholars differ on their exact implications (Gross, 2008). Tavris and Aronson (2007) look at this experiment from the perspective of cognitive dissonance. If somebody asked you to electrocute another person, most people would refuse. However, if

you start with a harmless 15 volts and work your way upwards, two-thirds of people would end up doing it without really realizing what they are doing. It is the gradual process of increasing the voltage that makes this, they argue, an experiment in cognitive dissonance. Self-justification, according to Tavris and Aronson (2007), is the gradual slide from morality into immorality. This gradual slide is helped by the way our memory works.

### **The memory:**

Tavris and Aronson (2007) talk extensively about our memory re-arranges itself to maintain the status-quo. People cannot remember complex information. They can remember selected events and reconstruct the rest. To protect their identities, people reconstruct their memories to avoid cognitive dissonance. People do this by creating narratives that make them feel good about themselves. Facts that contradict this narrative is conveniently forgotten. Sometimes, people “remember“ events that did not happen to them but they integrate these “memories“ to strengthen the narrative that they use to avoid dissonance.

Some of the research that has been done in regards to memory and cognitive dissonance includes a study led by Daniel Offer. In 1962, Offer and his colleagues interviewed 73 fourteen-year-old boys. They re-interviewed these people thirty-four years later. Tavris and Aronson (2007) report that the ability of these people to remember accurately what happened in their youth was “*no better than chance.*” They quote William Maxwell who said, “*What we... refer to confidently as memory ...is really a form of storytelling that goes on continually in the mind and often changes with the telling.*” Other psychologists confirm this view. Khan (1999, p. 142), for examples, writes that our long-term memory is permanently stored but “*it is subject to reorganization and transformation as it is retrieved, used and restored over time.*“

### **Learned helplessness and learned passivity**

Apart from cognitive dissonance, another well documented phenomenon is learned helplessness. Learned helplessness is when people have the power to change their situation but they believe that they are helpless. There is a related concept which is learned passivity. Learned passivity is when individuals feel that if they take an initiative, they will be penalized in some way. Learned helplessness can be at the individual level or at the group level (Peterson & Steen, 2009, p.314). In this study, learned helplessness and learned passivity are minor issues although we suspect they are much more common among working adults due to the interdependent nature of most modern organizations.

### **Models that explain human behavior**

Psychologists have proposed a number of theories to explain human behaviour. Traditionally, these approaches have included classical conditioning, operant conditioning, observational learning and various cognitive approaches (Coon, 2001). One approach, proposed by Aaron T. Beck, is cognitive behaviour theory (CBT). Proponents of CBT argue that people have three kinds of thoughts: conscious thoughts, automatic thoughts and unconscious thoughts. Automatic thoughts are conscious thoughts but most people are not aware of them. These thoughts are often negative and irrational. They are often referred as ANTs (automatic negative thoughts). Canfield and Switzer (2009) quotes research that shows that people have 50,000 automatic thoughts per day and 80% of them are negative. According to Canfield (2005), typical examples of ANTs include:

- Always or never type of thinking
- Focusing on negatives
- Making catastrophic predictions
- Mind-reading
- Guilt-tripping

- Personalizing (i.e turning a neutral event into a personal failure)

Although many studies have focused on negative automatic thoughts (for example, Snyder, 1997), more recent studies have focused on positive automatic thoughts ((Ingram, Wisnicki, 1988, Ingram et al 1995). One of the aims of CBT is to make people aware of their negative automatic thoughts and get them to develop more productive automatic thoughts. To help clients become aware of their thoughts, researchers have developed simple to use forms to records the thoughts of clients. These are often known as Thought Records. Greenberger and Padesky (1995), for example, propose the form presented in Table 1.

Table 1: Greenberger and Padesky's Thought Record

1. Situation	2. Mood	3. Automatic Thoughts	4. Evidence to Support Hot Thoughts	5. Evidence that Does Not Support Hot Thoughts	6. Alternative Thought	7. Rate new mood
	Rate from 0 to 100	Identify all of them and identify hot thought				

Source: Greenberger and Padesky (1995)

Three items are important in table 1. First, the rating of mood between 0 and 100 is critical to see how clients progress over time. For example, clients might write “anger - 90%” at the beginning of an intervention. Several weeks later, the anger might have fallen to 30%. The anger is still there, but at a much more manageable level. Second, identifying and validating automatic thoughts is essential in CBT. Third, the therapist teaches clients how to fill out this form so that the client collects the data when there is a significant event. This leads to accurate data. In the past, we asked our students to use the form shown in Table 1 to validate their thoughts. Our students found this form difficult to use because looking for evidence that contradicts what they think and feel is quite demanding. Khan (1999) proposes an alternative form shown in Table 2. It is based on the Antecedent-Behaviour-Consequence (A-B-C) framework.

Table 2: Khan's (1999) Thought Record

A) Antecedents	b) Behaviour			C) Consequence
	Cognitive (Thinking)	Respondent (Physical)	Operant (Acting)	
Stimulus	Conscious Thoughts (past, present, future)	Reflexes	Voluntary behaviour	Desirable events leads to positive or negative reinforcement
red lights	Automatic Thoughts	Physiological		Undesirable events lead to punishment or extinction
green lights	Unconscious Thoughts			

Source: Khan (1999)

Many of the components are the same but this form is easier to use for clients because it does not require them to think of evidence that contradict their thoughts and their emotions. In this form, clients are invited to identify green lights and red lights. These are the social situations that lead to undesirable behaviour (red light) or desirable behaviour (green light). The cognitive part includes perceptions about the past (i.e. attribution), perceptions about the present and perceptions about the future (expectations). Although Khan (1999) does not talk much about automatic negative thoughts, he does discuss them. Lastly, we like Tracey (2010).

He suggests that people can spend their time in one of two ways: reducing stress or achieving personal goals. Tracey (2010) observes that most successful people think long-term.

They work hard today to achieve their goals in the future. Unsuccessful people talk about future goals but they spend their time today reducing their level of stress.

### An Islamic perspective

Our interest in cognitive dissonance starts with the fascinating interpretation that Tavis and Aronson (2007) offer with regards to the Milgram experiments. This gradual slide from morality into immorality is often discussed by Muslim scholars. Further, we speculate that cognitive dissonance reduces the effectiveness of *nasihah*. *Nasihah* is a concept that is at the heart of how Muslims deal with one another. In an authentic narration, the Prophet (SAW) said,

"الدِّينُ النَّصِيحَةُ. قُلْنَا: لِمَنْ؟ قَالَ: لِلَّهِ، وَلِكِتَابِهِ، وَلِرَسُولِهِ، وَلِأَيْمَةِ الْمُسْلِمِينَ وَعَامَتِهِمْ"

The Prophet Muhammad (SAW) said, "The religion is *nasihah*". The companions asked; to whom? The Prophet (SAW) said, "To Allah, His book, the Messenger, the leaders of the Muslims and the common folk." Zarabozo (1999) says that *nasihah* is "any action or statement that contains goodness for other people with the intention of wanting the best for them". *Nasihah* to Allah means fulfilling the obligatory deeds in the best possible way. *Nasihah* to the book means believing in the Qur'an and calling people to it. *Nasihah* to the messenger means knowing and following his Sunnah. *Nasihah* to the leaders is helping them in goodness. Muslim leaders should actively seek *nasihah* and follow it when it is given. *Nasihah* to them common folk is helping them, teaching them, having mercy and respect for them. Some aspects of *nasehah* are obligatory for every individual while other aspects are obligatory on the community. Muslim scholars have discussed the best approach to give *nasihah*. Generally, the discussion focuses on having knowledge and doing it in a way that does not embarrass the person receiving *nasihah*. In the light of what we know about cognitive dissonance, we suspect that many people receive *nasihah* but ignore it to avoid dissonance.

### Developing a framework for this study

We developed a new form that combines the ideas of Greenberger and Padesky (1995), Khan (1990) and Tracey (2010). The form developed is presented in Table 3.

Table 3: The form developed for this study based on the ABC format

Antecedent	Behaviour			Consequence
	Thinking	Feeling	Behaviour	
<b>Green light</b>	Automatic thoughts  Conscious thoughts about the past and the present	<b>Positive emotions</b> (from 0 to 100)	Base-line  Current behaviour	<b>Yes – Achieving long term goals</b> a) Changing skills b) Changing emotions c) Changing thinking
<b>Red light</b>	Conscious thoughts about the future if the current behaviour remains	<b>Negative emotions</b> (from 0 to 100)		<b>No – Reducing stress</b> a) Cognitive dissonance b) Learned helplessness

Source: Dr Fontaine

### Research methodology:

One of us was teaching organizational behaviour for undergraduate students. The form presented in Table 3 was introduced at the beginning of the course. The key concepts were explained in some detail. A number of class activities were developed so that students had to use the concepts instead of only hearing about it. For example, the form above was used as the basis of role plays. One student played a manager while another student played a subordinate that arrived to work late. The “managers” had to ask about the antecedents first, then explore the thinking, then explore the emotions and then explore the consequences. We discussed the need to keep an open-mind on the event until the manager had gathered all the relevant information. We discuss the need to collect data and how to analyze it. Once students were familiar with the form and the ABC format, they were asked to collect data on their sleeping pattern for ten consecutive nights. They were then told to bring this data to their mid semester exam. One of the questions on the mid semester exam focused on presenting their analysis of their own behaviour and their personal reflections. Another question was asked to discuss the following statement, “No data, no change.” Students were informed of these questions so that they can have time to think about their validity.

Two points are important. First, the data collection was not done for the sake of presenting a paper at a conference. Every semester, our students have to collect data on their own thoughts and behaviour as part of their coursework. Second, the purpose of the exercise was to get them to reflect on their own thoughts, feelings and behaviour. The data collected - their sleeping pattern - was both important and unimportant. It was important because students often sleep late and come to class tired. Going to bed earlier improves their health and their productivity. At the same time, the sleeping pattern is not an emotionally threatening subject to students. However, it does help students practice collecting data on their own thoughts, feelings and behaviour in order to monitor themselves. They also need to learn how to analyse and interpret the data. If they can do it with their own sleeping pattern, they can use the same techniques on more personal problems.

### Data collection:

Ten days prior to the mid semester exam, students were told to collect data on their sleeping pattern. They were encouraged to try to modify their sleeping pattern if necessary. The students brought ten completed forms to the exam hall, sat for the examination and stapled the forms to the answer booklet. We were able to look at the raw data and see how the students had analyzed their own thoughts, feelings and behaviour. The quantitative data (the forms) were compared to the qualitative data (the essay question in the answer booklet). The results are presented in Table 4

*Table 4: Results of the data collection*

<i>Assessor's observations</i>	<i>Yes (in %)</i>	<i>No (in %)</i>
Have the antecedents been identified?	89	11
Have the conscious thoughts been identified?	98	2
Have the automatic thoughts been identified?	32	68
Has the future been forecasted?	90	10
Have the emotions been rated?	99	1
Has the current behaviour been identified?	99	1
Does this student seem to be focusing on long term goals?	24	76
Does this student seem to be experiencing chronic cognitive dissonance?	65	35
Does this student seem to be experiencing learned helplessness?	11	89
Overall, is this student more aware of his or her thoughts, feelings and behaviour?	100	0

The data collection reveals that by doing this exercise,

- 100% of students developed an awareness of their sleeping pattern.
- 65% of students experience chronic cognitive dissonance



- Only 32% of students could identify their automatic thoughts
- Only 24% of students seem to be working towards their long-term goals

When reading the essays, it was clear that many students had been unaware of their thoughts, feeling and behaviour before filling out these forms. Many students have multiple commitments to manage: they need to be good children to their parents, good Muslims to themselves, good friends to their peers, and good students to their lectures. They often seem confused as to how to achieve these multiple and sometimes conflicting goals, hence the 65% of chronic cognitive dissonance in the class. Their emotions range from happiness and pride for doing something well (typically, getting a good academic result) to guilt and frustration for disappointing someone (generally a friend or parents, but rarely a lecturer). Time management seems to be the main problem. Everybody (parents, friends and lecturers) want them to spend more time on them. Prioritizing time, to a certain extent, is not about achieving goals but it means prioritizing relationships. This is very stressful for Malaysians as

Malaysian culture tends to put a lot of value on maintaining a harmonious relationship with everybody.

Comparatively, it is much easier for them to identify and manage antecedents. Many students were intrigued by the experiment and experimented with new behaviour. Such experiments often started with modifying antecedents, which was easy for most students to change. In many cases, the motivation behind these new behaviours varied. Some students, for example, decided to sleep earlier to see whether they would become more productive the next day. The reasons for experimenting varied from student to student. One student wrote that she needed to prove to herself that she could do it. Another student said that she changed because she was curious to see what would happen. Some students seemed to be motivated by a desire not to lose face in front of their peers. For some students, their dysfunctional behaviour became obvious to them for the first time and they resolved to work on it in the future.

Many students reported that analyzing their own thoughts, feelings and behaviour was something new for them. Some of them found it disturbing while others found it exciting. Most students reported a number of personal insights that seem to indicate that they took the whole exercise seriously.

### **Discussion:**

In the introduction, we started by discussing the fact that many leaders seem lie to themselves. Based on Tedlow's (2010) account, we assume that cognitive dissonance would be part of the psychological process that would lead to such a state. Our data and analysis seems to confirm this analysis. Our research provides a way out of this problem by showing how one can manage cognitive dissonance. Having a valid theoretical and then collecting data on oneself seems a useful approach. In the past, we have used learning journals a lot. The problem with learning journals is that they often lack a theoretical underpinning so it can often become a collection of disjointed observations. Once students have been taught to use the ABC forms, they can be taught to collect data on themselves in a more systematic manner and they can be taught to analyse their own pattern of behavior. We tell our students that this is a skill that benefits them, not us. The exercise on monitoring their sleeping pattern is simply to get them used to using the form, collecting data on themselves and analyzing their own behaviour. Once they can do that, they can use the same technique to discover their own thoughts, feelings and behaviour. The response of our students was generally positive. They generally had no previous experience of systematically monitoring their own thoughts, feelings and behaviour. Once they were taught how to do so, they became much more aware of their own patterns of thoughts, feelings and behaviour. In some cases, they started managing them more effectively. These two steps represent the first two aspects of emotional intelligence. In our opinion, it opens new avenues for developing ethical students. As Tavis

and Aronson's research suggests, many people are not unethical per se, but they behave unethically through a gradual process of self-justification. Rather than talking to them about ethics, a new approach could be to get them to experience ethics by monitoring their thoughts, feelings and behavior when faced with everyday ethical dilemmas. Being able to put names - cognitive dissonance, distorted memories and self-justification - and a process also helps students overcome their guilt and find means to manage their ethical dilemmas. With hindsight though, we should have spent more time explaining automatic thoughts and helping them identify them.

This study has implications for Muslims that we are still exploring. *Nasihah* is one of the most important ethical principles in Islam. Traditionally, *nasihah* has focused on talking to people in private. It generally tends to be a discussion between two close friends and the discussion focuses on how one of them can improve himself or herself. However, the one receiving *nasihah* will naturally feel threatened. Furthermore, there is an inherent subjectivity in the process. In this study, we did not tell our students how to behave, we simply provided them with a process of discovering their own behaviour through a process of self-discovery. What this study suggests is that ABC forms can be used to provide a more systematic and less subjective framework for giving *nasihah*. To clarify what we mean, imagine the following scenario. You are a Muslim student and you have two friends A and B. Last night, they both watched a movie until 2 a.m. and they both missed the morning prayer. You want to give *nasihah* to both of them separately. Now consider Table 5.

Table 5: A hypothetical scenario

	A	B
<i>Behaviour</i>	Didn't pray the morning prayer	Didn't pray the morning prayer
<i>Antecedent</i>	Watched late night movie until 2 a.m.	Watched late night movie until 2 a.m.
<i>Thoughts</i>	Loves Islam but has little knowledge.	Hates Islam.
<i>Feelings</i>	Guilt 80%	Happy 70%
<i>Consequence</i>	You want to give <i>nasihah</i> to A	You want to give <i>nasihah</i> to B

Although both A and B behaved in the same way, their thoughts and feelings about missing the prayer are very different. Common sense tells us that the right approach to give *nasihah* to A will be very different from the approach to B. In short, the ABC framework should theoretically help Muslims be more effective in the way they deal with one another.

### Future Research:

When offering this course in the future, we hope to do the following:

- Teach our students how to use the ABC forms to collect data on themselves. We plan to spend more time explaining automatic thoughts so that they have a better chance at identifying them
- Teach them to use the ABC forms to monitor their own thoughts, feelings and behaviour
- Get every student to work in pairs and get them to use the ABC forms to give *nasihah* to one another.

In their end of semester report, they will share their experiences. Depending on the outcome, we will then decide whether to pursue this line of enquiry or to abandon it.

### Conclusion:

In this study, we have argued that many people lie to themselves looked at how to use the Antecedent Behaviour Consequence model to overcome cognitive dissonance. Overall, our students developed a greater awareness of their own thoughts, feelings and behaviour. Some of them were able to modify their behaviour while many couldn't or didn't want to. We

believe that our approach was generally successful because it is based on the principle of self-discovery (i.e. they collect data on themselves and analyze their own behaviour). As lecturers, our job is to provide the framework and to facilitate. Future research needs to be conducted to see whether such an approach could be used to develop more ethical students, especially within the context of giving *nasihah* to one another.

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# EDUCATION DEVELOPMENT PROBLEMS IN THE POST-SOVIET SPACE

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## Abstract

The current global crisis can only be achieved through a more educated society. The EC's innovation strategy is the expansion of the capacity of human resources in innovative activity; and the creation of knowledge and its practical application has an important role in knowledge management. The implementation of this strategy in the former-Soviet space is complex and has significant deficiencies. Production and dissemination of knowledge is characteristic of the former-Soviet countries, and is less focused on its practical use for a variety of reasons, among which the most important problems of mentality and language barriers still remain. The elimination of the abovementioned is available by means of creation of the right educational policy and knowledge management system. The most successful companies "understand" that the rejection of knowledge management would be an expensive cost for them. The paper analyzes the development of modern state education and shows the connection between education and development of knowledge management. The author also investigated basic education development problems and cause-effective relationship based on knowledge management and conceptual model of knowledge management is presented. In the final part of the paper the author gives education-related recommendations for problem solution in the former-Soviet space.

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**Keywords:** Education marketing, Knowledge management, Knowledge map

## Introduction:

A certain aspect of sustainable development has its important role in the main challenges of the third millennium, including the question of education on its central place. On advanced stage of civilization, both developed and developing countries pay more attention to the establishment and development of a knowledge-based society. Therefore, the vast majority of research falls on knowledge development problems. The main demand of civilization is the creation of a unified world, based on innovative knowledge.

Creation of proper educational policies and its realization is available to ensure the abovementioned for specific countries. For this purposes, at the end of 90s, educational reforms began in the space of the former Soviet Union.

In 1999, an agreement about the education space - "Bologna Declaration" was signed. Among the 29 signatories of the declaration, 10 countries were added in 2004 and in 2005 their number increased to 45, where Georgia, Azerbaijan, Ukraine and Moldavia had already been among the signatories of the declaration.

Bit abovementioned is only the fixation of the fact, after which the successful realization of its contents is to be secured. In reality, after joining the Bologna process, things in Georgia developed very quickly. Reforms in the education system began immediately, what was reflected on the implementation of Unified National Examinations for admission to institutions of higher education. The notification was followed by a complete reform of the education system.

In 1998-2000, the high school turned quickly and with great enthusiasm into a three-stage study (Bachelor, Master and Doctoral level). But no one knew exactly what and how to teach, and many were in search of approaches and methods to see which of them would be relevant to our reality.

In this case the biggest mistake was to carry out activities without research and analysis of the environment. Nowadays, all agree that in case of the five-year study we got more trained specialists in high schools than we have today with Master's diploma. It is absolutely true, because the idea of two level teaching is good, but the question is when?

Based on what? Or how many of these specialists are required and in which field of public life? There was no survey carried out concerning the graduates and employed to be required and even no real data. Several meetings were held at international level to create a common European space for education and ensure sustainable educational system. The modest list of it looks like this: "Bologna Declaration"- 1999, Lisbon 2000 strategy in the field of education, Prague Communiqué- 2001, Berlin Communiqué-2003, Bergen Communiqué-2005, London Communiqué in 2007 and new communiqué in Leuven 2009. Each of them agrees with the basic requirements of the European education space where it is important to implement the system of comparable academic degrees, to carry out research-oriented teaching process and to ensure the existence of undergraduate and post-graduate education system; also to implement European Credit system; quality assurance of cooperation; the development of educational programs, cooperation of educational institutions; to provide mobility; to create integrated programs of teaching and research; continuous education system and its perfection. Update knowledge and the development of the Lisbon strategy will remain a priority in 2020. The current global crisis can only be achieved through more educated society. This is a very well understood in Europe. The EC's innovation strategy is the expansion of the capacity of human resources in innovative activity; the creation of knowledge and its practical use, which has an important role in knowledge management.

The implementation of this strategy in the post-Soviet space is complex and has significant deficiencies. Gaining and dissemination of knowledge is very characteristic for the post Soviet countries. They are less oriented on its practical use. There are varieties of reasons for it, among which the most important problem-mentality and language barriers-still remain. The elimination of the above-mentioned is available with the help of creation of the right educational policy and the system management of knowledge.

In the former Soviet countries science and education reached a high level, but this potential was absolutely useless for Post-Socialist Countries' economy. Such opinion is submitted to the World Bank experts' report, which was published under the title "Public Financial Support for commercial Innovation",<sup>73</sup> where the problems of research and commercialization of the independent countries separated from the former Soviet Union, are analyzed. According to the survey – 15% of gross domestic product(GDP) is spent on scientific research and innovation, in Russia-1.2%, in Ukraine 0,8% in Estonia,-0.7 Lithuania and Belarus, 0,4% in Latvia, 0,3% in Azerbaijan, 0.2% in Georgia, Armenia and Kyrgyzstan; In European and Central Asian countries for scientific and technological findings are spending 0,9% of GDP and the humanity is spending 2.3% of the planet's GDP on scientific research, for comparison-U.S" puts"2% of GDP for scientific research, Israel-5.1% of GDP and Finland 3.6%.

In Europe and central Asia, mainly the State assumes the costs for the development of science and technology, one-third of mentioned costs come from the private sector.

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<sup>73</sup> World Development Report 2004 <http://www-wds.worldbank.org>

In some countries (Japan, USA, Sweden, Finland, Ireland, Germany), where money is actively put into science and innovation, the share of business sector in funding reaches 65-70%-while the states pays the rest.

The number of scientists in Europe and Central Asia still remain (despite the current financial problems in this area) on their high-level, from the former Soviet Union – on average, two thousand researchers or employees are coming to one million people who are related to the development and introduction of new technologies. According to countries the World Bank publishes the following data: Russia – 3,4 thousand researchers to one million people, Georgia – 2,4 thousand; Ukraine – 1,8 thousand, Estonia – 2,3 thousand, Belarus and Lithuania – 1,9 thousand, Armenia – 1,6 thousand, Latvia – 1,5 thousand, Azerbaijan – 1,3 thousand, Kyrgyzstan – 0,5 thousand; Moldova – 0,2 per thousand, for the EU countries, the parameter reaches 2,5 thousand – to one million. In this respect, a world leader country in Finland: 7.5 thousand researchers to one million inhabitants; then comes Japan – 5 thousand, and Germany – 3,2 thousand. As the statistics show, performed works by scholars and their views do not suffice to even higher levels of economic growth.

Without commercialization of research results, research and education funds are spent in vain. Despite the innovations of life – the need, even in economically successful countries, the growth of expenses becomes problematic. The latter is caused by two main reasons, one: any new idea or product that makes the most impact on society and the economy, in addition, the inventors, often cannot take profits and others gain it, therefore suppressed “research” stimulus remains suppressed; and not only scientists lose interest in the creation of new ideas, but also people or institutions who fund the scientific researchers at an early stage. The second factor: manifestation of “information asymmetry” – inventors (to the author) are much more aware of their own invention and its potential use than the financier who has the financial resources to ensure the idea. It is very difficult for scientists to submit their project to adequate dignity and prove that idea on an industrial realization – will bring profits. This is because scientists and investors speak in different languages what makes funding problematic.

In the USA, scientific researches in the early stages are funded by the government (budgetary funds on average, 34% of financial resources invested in projects – total and “venture” capital (it is 34%) and 25% - the entrepreneurs invest in projects and hope for big profits in future).

From the designated countries of the former Soviet Union, the situation in comparison of the U.S. is radically different: entrepreneurs usually do not invest commercializing scientific opinion, and the states do not have adequate resources or, if they have any, they do not know how to act in this field (from the view point of commercializing scientific ideas).

The level of education of any state reflects the economy and four components “knowledge economy” – determines a successful formation of states.

According to a new methodology, knowledge-based economy indicators are of great importance. One of the defining approach of state development indicators is given in the World Bank K4D (K Knowledge for Development – Knowledge Development) program.

In addition to professionals, scientists in industry, we need the right type of people available to transfer intangible assets (Licenses, Trademarks, scientific solutions, patents, know-how, human capital, knowledge) into material. Intangible assets of industrially developed countries determine the value of large companies. In former Commonwealth of Independent States, scientific research and commercialization of innovative business face two major obstacles (we do not use alternative ways of commercializing research results); these are NASDAC – like stock market and venture capital (the so called “venture” capital) companies with no presence.

Recent studies showed that tangible assets are only visible with a small part of the corporate property or market value. The obvious representation is sufficient to note that total market capitalization of 500 leading the company with “Standard and Poor’s 500” index rated

companies in the market, and the ratio between the carrying amount of the 5,3 and for some high-tech firms this ration (the ratio between the carrying amount and the companies' market) was more than 10.

Nowadays, "invisible" assets in expense of intellectual capital bring the biggest profit (in developed countries), that is why many companies (in developed countries) invest education and do not require immediate return on such investment as they are convinced that due to such actions (investment) increasing market requirements will be satisfied.

The most successful companies recognizing the knowledge of capital, "understand" that the rejection of knowledge management would be an expensive cost for them.

This growing part of nowadays product cost is the part knowledge share put in it and the value of the same knowledge in product cost is growing more and more. Knowledge development is closely related to practical use of knowledge. As far as the main source of knowledge transfer is the field of education, we conducted our research in terms of knowledge use and development in educational institutions and business structures. The transfer of knowledge in organizations is done by means of communication, the ranking of which according to existing reality can be as follows: Personal communication, group communication, knowledge management and corporate sources, or communication via IT technology.

The research found that three of the knowledge transfer processes are not carried out properly. The reasons for this mainly is monopolization of information in higher educational institutions, or in other words the problems of solo or group communication in the majority of educational institutions. The analysis showed that in 57% research objects – no news, innovative approaches and new knowledge – information about knowledge are timely and completely transmitted. Information on the middle and lower levels of governance is going to come late or not at all, resulting in the formation and dissemination of knowledge improperly. The analysis shows that from 100 percent of knowledge dissemination about 34% falls on delayed provided information about knowledge; 21% belongs to incorrectly (vague) delivered information, 35% - for provided incomplete information; and 10% is for the information which is unknown for the applicant.

Results from the study showed a picture of the causes which are largely dominated by a variety of inappropriate and outdated management approaches. These causes were cited by 57% of research objects including the so-called public and private institutions of higher education. The obstacles of knowledge dissemination and use in state institutions of higher education are expressed by 27% because of IT technologies, and in private sector its share 15% is still observed. Might sound sad or not, the survey revealed that in the majority of educational institutions the practice of "hidden knowledge" still exists. The supporters of this approach allow them to maintain their positions for a long time that makes the structure more monopolized ensuring their life cycle.

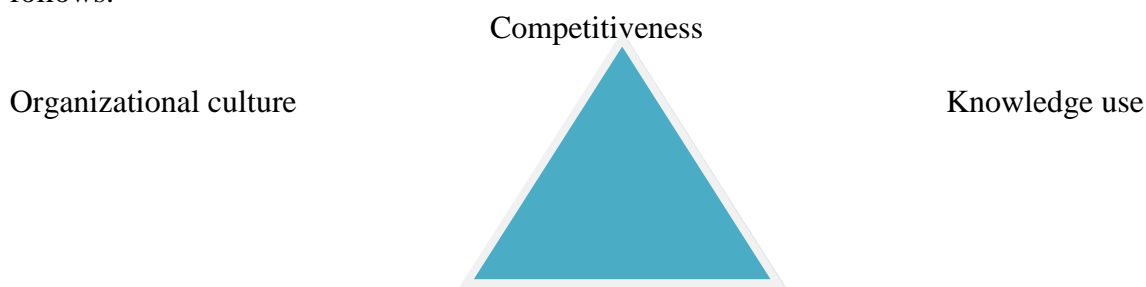
In terms of knowledge dissemination and use, financial management problems are obvious when universities, financial management of Universities due to lack of financial resources could not or do not fund the use of knowledge activities in the structure.

Radically different is the picture of business structures, among which, by our banking institutions, were selected industrial enterprises, insurance companies, and retail facilities. There in terms of knowledge in practice a wide range of innovative work is being conducted. In the bank structures using private, group and IT technologies, the level of communication is high. The inhibiting reason for knowledge dissemination use is mainly caused by the gaps while rotation (21%), and because of the use of low qualification staff (which creates the problems associated with the perception) the obstacle for knowledge use falls 11%. As for industrial corporations and insurance companies, the process of dissemination and use of knowledge is intensively conducted. However, the deficiencies in corporate databases are

more obvious. From financial point of view, this target group is sponsoring the dissemination and use of knowledge in the range of their interest sphere.

The situation is much more difficult in trade objects where 62% of respondents are not aware of knowledge management concept; 21% - (mid-level management) heard about it, but did not actually possess the technology; 15% - (upper-level management) does not see the need for this stage; 2% - was attributable to the trading centers, like: network Carrefour and goodwill, and upper-level management believes that the knowledge management in their companies are in their embryonic process and they consider short-term operating period in Georgia market the cause of it. The analysis showed that a large part agencies surveyed do not consider the intellectual resource to be a section of strategic perspective which already belongs to the past (is the part of yesterday). Intellectual resources should be considered to be the main factor of competitiveness and insurance of stable financial resources. Starting point for any companies should be a constant concern for upgrading and development. The companies should actively make their effort to apply the knowledge use and dissemination; to job creation and implementation of marketing research; to creation innovative groups and activities as they work on developing new and growing intellectual resources. To do that, first you need to create a high organizational culture. The latter is not only the development of the organization's code of ethics and behavioral norms. Under the definition of organization culture we mean determination of the chain of values of competitive strategy and its purposeful implementation which resulted in a highly competitive priority setting and financial results.

All of the abovementioned allow us to say that education is achieved through the development of knowledge management. The latter results are highly dependent on organizational culture, which gives ability of practical knowledge use and allows to increasing competitiveness. Thus, knowledge management, a conceptual model can be represented as follows:



*Picture 1. Knowledge management conceptual model*

Knowledge development, application, and their socio-economic implications of a clear example of the world-famous techno parks and techno zones are clear examples on knowledge development and use and their social-economic consequences. Here knowledge management, knowledge development and use elements are nicely combined.

By the definition of International Association of Technological Parks developed in 2002, "Technological Park is managed by specialists whose main objective is to improve the well-being of local communities through the development of an innovative culture. It promotes the development of innovative business and scientific institutions. To achieve these goals, the technological park properly allocates human resources and knowledge to universities, scientific – research institutes, companies and markets".

39 000 people are employed in research triangle, North Carolina, the majority of them (97,3%) work in scientific- research organizations. This is due to the fact that the University qualified personnel and young scientists are attracted in techno parks. Investments in Techno Park annually increased and nowadays it reached 2 billion dollars.

In 90s, Park in Zurich included 190 companies, in which 1,400 people were employed. Establishment of the park caused the creation of hundreds of new jobs.



Romania's techno parks are joint ventures of local and central government, higher education and research institutions and other interested organizations. In 1996, in Latvia "Latvian Techno Parks' Association" was officially established, the main objective of which was to establish close links between science and business structures.

### **Conclusion:**

As it has already been mentioned, the problems of education development are closely related to knowledge management. It is recommended to achieve high results with knowledge management by means of "the knowledge map" which is specific for each structure. By means of "knowledge map" we determine the value of new knowledge, create channels for knowledge transmission, and implement the relevant information technologies and programs. A "knowledge map" appears to be a kind of geographical model for organization, on which are given all necessary processes for the use and management of knowledge, including the restrictions and costs.

The existence of such mapping facilitates the control of the business – processes, the introduction of innovations while creating new products in the marketing research - provides scientific- experimental-construction work on elimination coping and reducing costs.

The knowledge map model provides information on the issues on which business processes should be managing the knowledge resources with which we have a connection at this time. The model can also create a specific (detailed) maps separately as business processes, as wells as knowledge resources for implementation.

After creation of knowledge map, start knowledge management activities, which are presented in the form of some blocks:

- Business prospects;
- Managements perspectives;
- Operating activities prospects.

The first block consists of corporate knowledge management strategy. In this case, attention should be paid to the active use of new knowledge for creating new product.

The second block of knowledge management includes the questions of knowledge management policy, knowledge creation, acquisition, transfer and management of use, monitoring of management processes.

The third block is oriented to practical (operational) activities, including the creation of knowledge, access to knowledge and analytical work; intellectual capital formation activities, including the acquisition of knowledge through the information of human resources; scientific knowledge, or similar programs in the system, the knowledge of expert networks, working groups and consultations.

The issue of knowledge management is closely related to the motivation of employees which does not include only tangible forms of stimulation.

Here work trips, internships, various kinds of promotional activities are important.

Under the conditions of global competition, it is necessary to develop techno zones, techno-policies, scientific-industrial and other corporate bodies in the regional context. In the first stage of expediency:

- To create a nationwide techno parks and techno zones;
- To create Armenia-Georgian scientific corporation;
- To create Georgia-Russian scientific-industrial corporation;
- To integrate Educational Institutions into the Baltic States techno park.

In this way, the starting point of experience will contribute to the post-Soviet states to earn competitive scientific resources and become a global integrated (education and research) member agencies. In this way overcome the financial, marketing and management problems that are not possible for individual countries and agencies to solve in a short period of time

will be overcome which ultimately leads to the development of education on regional and global level.

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# TEACHING DEMOGRAPHY THROUGH BLENDED LEARNING (DEGREE IN LABOUR RELATION AND HUMAN RESOURCES)

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## Abstract

The current teaching climate, in the framework of the European Higher Education Area, is favourable to the design of tools allowing students to self-study, following course subjects independently of their teachers and of the classroom. The study of demographic statistics, in particular, can thus be enhanced for undergraduates enrolled in courses involving this subject, such as labour sciences. Demographic statistics is an appropriate area in which to apply new technologies, as all the practical information used is located on the websites of the various Institutes of Statistics. Very little software has been designed for the application of the techniques associated with this discipline, and so there is a real need for this type of self-learning tool.

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**Keywords:** Demographic statistic, e-learning, blended learning, higher education, labour relations and human resources

## Introduction:

In teaching demographic statistics, in any social sciences course, but particularly in labour sciences, it is essential to use large amounts of information, obtained from the different agencies that publish data in this field (Navarrete et al., 2010). For this reason, the teaching methodology employed necessarily takes into account the use of new technologies and of software to apply the demographic techniques required (Abad et al., 2007). However, there is no very suitable software for this purpose, since the few statistical-demographic programs to be found are based on very complex demographic techniques, which are not usually taught in undergraduate courses, and for which students have an inadequate statistical-mathematical background.

The subject content is strongly practical, and includes techniques used in statistical and demographic study centres all over the world. Accordingly, access to a tool facilitating understanding of this field would be of great advantage to students, enabling them to access information and study the subject from any geographic location. To achieve this, teaching materials for demographic statistics must be adapted to new curricula based on the European credit transfer system, incorporating new materials suitable for e-learning, and thus enhancing

the teaching of this field of statistics. Many recent papers have addressed this issue, including Batanero (2001), Batanero et al., (2000) and Navarrete et al. (2006).

This communication forms part of a teaching innovation project funded by the University of Granada, to be put into practice with undergraduate students in the field of labour relations and human resources. Briefly, it consists in offering the students e-learning materials containing the necessary demographic theory and an application of each of the demographic techniques involved (Huete<sup>(a)</sup>, 2011); the students will be able to view flash-based explanatory videos providing straightforward guidance, by means of automated practice in Excel worksheets. Skills acquisition can be determined through self-assessment tests, and students will maintain ongoing contact with their teachers through a blog. The study contents are fully public, so that any teacher or student can make use of them. The different tools used are described below.

### General content:

First, the students enter an open-access website (<http://www.ugr.es/~mdhuete/E-Learning/> - see Fig. 1), which contains the materials developed for this e-learning project. The site was created using Adobe DreamWeaver CS3 and/or HTML and Visual Basic. It presents the theoretical and practical subject content, divided into seven sections, from which the student can freely select. The website also contains a blog with the latest news on demographic phenomena published by statistical institutes. The blog also includes a glossary of terms related to the main concepts used in this field and some useful links in this respect. Students can complete an (anonymous) opinion survey on the project and send it to the project coordinator.



Figure 1. Website associated with the teaching project

### Blended learning materials:

The theoretical content to be assimilated before undertaking practical lessons is presented in pdf format, using Latex. These files enable the student to review the basic principles of demographic statistics (Brawn, 1991; Livi-Bacci, 1993; Abad et al., 2001). These are previously explained in the classroom, and so this methodology can be termed 'blended learning' or b-learning (Duran, 2005; Alemany, 2007; Bartholomew, 2004), in contrast to the e-learning methodology in which the student is not physically present at any stage of the teaching process (Huete<sup>(b)</sup>, 2011). The role of the teacher must not be underestimated, as it is in the classroom that most students first acquire skills and competencies in the subject, and where the teacher's explanations are of crucial importance. To complement the theoretical material, problems are presented and solved, based on real data whenever possible, and these are posted on the web, for use both by the students and by other teachers (Fig. 2).

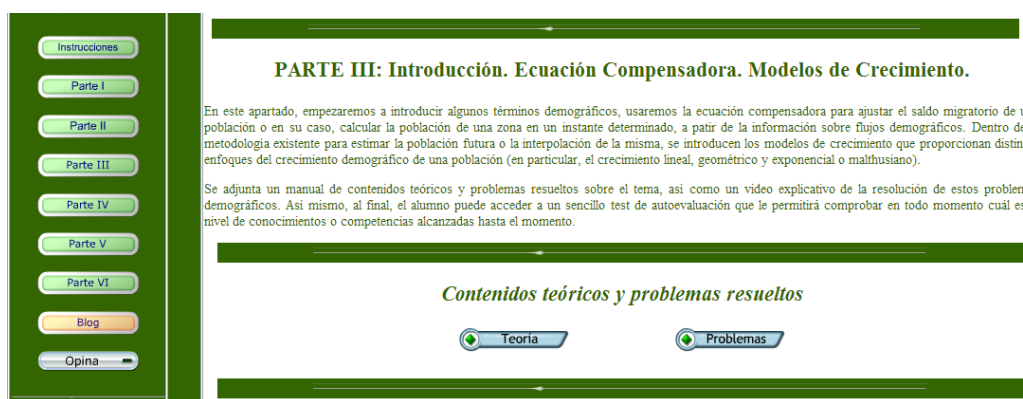


Figure 2. Blended learning materials

### E-learning materials:

Although the figure of the teacher is central to the learning process, students can also approach their studies in terms of self-learning, or e-learning (Stegman et al., 2008). If appropriate materials are readily available, enabling the student to assimilate their contents, skills may be acquired by this means. In the case in question, the students can carry out the online practices with the help of the teacher, as explanatory video tutorials have been embedded into the website, using software created for this purpose (RealSpeak, by SodelsCot, 2013). Thus, the teacher demonstrates each area to be practiced (Huete, 2010) and the student can review it any time, anywhere (Fig. 3). These practical demonstrations are recorded in Excel and have been made as automated as possible (using programming language), with the aim of enabling the students to perform the practical exercises without difficulty, and bearing in mind that these students do not have a strong mathematical background and that no specific software exists to create such demonstrations.

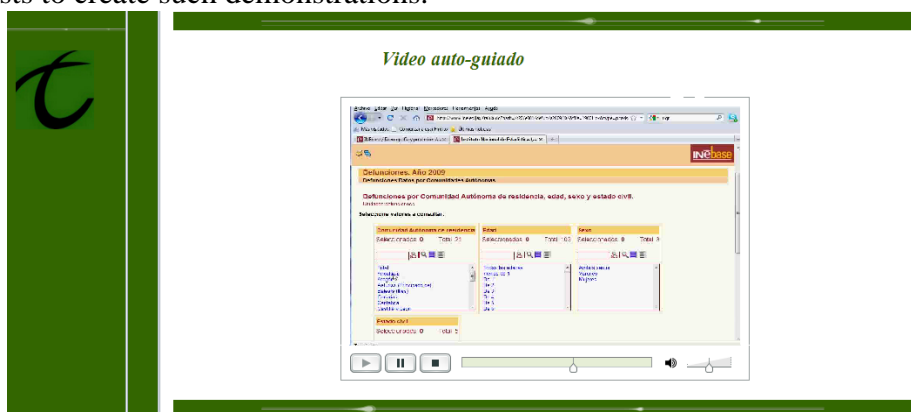


Figure 3. Video demonstration by the teacher

Among e-learning materials it is very useful to have tools that allow students to assess their learning of knowledge and skills. Therefore, we created an online application to be included in the website, consisting of a series of self-assessment tests generated by CourseLab, a free e-learning program that can be used on platforms that incorporate the SCORM or the LMS standard; this program enables the inclusion of flash objects, JavaScript, popups, sounds, links to external websites and multiple-response tests. The scoring mechanism is goals-based and conditions can be set to create stages of achievement and to define the study goals. It is also possible to post in HTML or CdRom (as used in our project), among other means, through the incorporated weblet (Fig. 4). The routines generated for each part of the study subject inform the student whether the correct answer has been given, the score achieved (distinguishing between theoretical and practical questions) and the overall assessment.

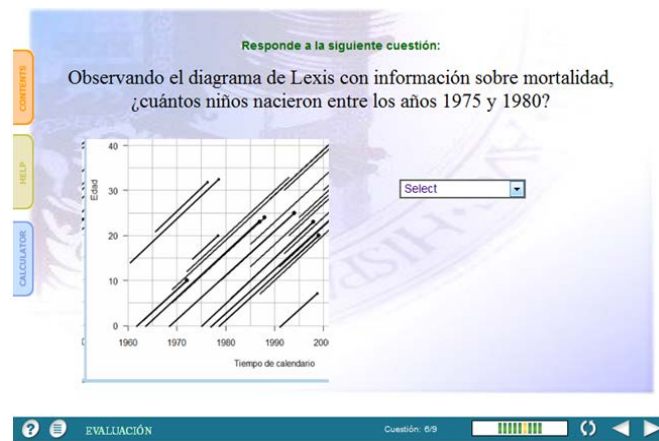


Figure 4. Self assessment

### Teacher-student interaction:

To enable fluid communication, a blog was created (Fig. 5) by means of which teachers and students can share ideas, knowledge and news about demographic phenomena, and thus maintain permanent contact in this area.



Figure 5. Demographic statistics blog

The blog also includes a glossary of terms and links associated with demography. Finally, the students are asked to complete a brief survey on their satisfaction with the website and the materials provided. The survey results are very helpful in evaluating the results obtained from this teaching innovation.

### Conclusions:

This project aims to improve the learning process in demographic statistics for undergraduate students in labour relations and human resources. To this end, we consider e-learning and/or blended learning techniques, in which new technologies provide students, at all times, with a tool in support of the conventional classroom-based approach. These techniques facilitate self-learning and raise the quality of academic outcomes. Understanding of the subject is enhanced because the use of new technologies facilitates attention and concentration. By this means, students, as well as attending classes and following the teachers' explanations, can also – any time, anywhere – reconsider these explanations, simply by connecting to the internet. The self-assessment system that is included allows students, whenever they like, to test their degree of assimilation of the subject matter.

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# IMPLEMENTATION STEPPINGSTONES WITHIN SUSTAINABILITY ORIENTED MASTER STUDY PROGRAM FOR TEACHERS

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## Abstract

The article is the outcome of the research into the national and European documents, regulations and normative acts and carried out analysis concerning context and rationale for creating and implementing an interdisciplinary and sustainability oriented master study program for teachers. By undertaking such a research, it is sought to identify and implement good practice in approaches to teaching and curriculum development; to find out how to embed sustainable development in institutional teaching and learning strategies; as well as assess the support required for widening and deepening this embedding process. The approach adopted throughout the research has been non-prescriptive, open and participatory. The article is an assessment of the current state of teacher education at master's level in two universities of Latvia: the University of Latvia and Liepaja University, hence not a comprehensive review. Nevertheless it represents interdisciplinary and integrated research and its implementation in designing a sustainability oriented master study programme for teachers within in-service teacher education in Latvia.

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**Keywords:** In-service teacher education, Professional Master's Study Programme "Teacher", sustainable development, epistemological, ontological and axiological aspects, wellbeing and cohesion

## Introduction

A teacher's motivation is not connected only with the motivation to teach, but also the very motivation of being a teacher for all one's life and developing a teacher's career. Lack of intellectual challenge when teaching one and the same subject – without gaining, realising and improving new knowledge, skills and abilities is a demotivating factor. The work of teachers does not offer wide career opportunities, mostly they are limited to the position of school principal or lecturer at a higher education establishment. However, also within the profession, teachers have to constantly improve and develop their professional knowledge and skills and one of the ways could be continuing studies.

The research conducted during the last 3 years at the University of Latvia, Faculty of Education, Psychology and Art and Faculty of Pedagogy and Social Work, Liepaja University revealed that the majority (87% or 261 students out of 300) of the potential pre-service teacher education graduates had not yet decided what to do after graduation. Students do not feel secure about their future in the labour market as employers do not wish to employ specialists with no practical experience just after university. Students, provided they have not



started to work combining it with studies, are not fully aware yet (after 4 years spent at the educational institution) of the specifics of the chosen profession. They are not able to assess their skills and abilities critically. From this point, the number of people willing to obtain a Master's diploma could increase. They would choose to study further to be more competitive in the labour market. However, few graduates (79 out of 300 in the last 3 years; 16 out of 79 English language teachers) had chosen to continue with postgraduate studies in the existing master's programmes. One of the reasons is that the master's studies offered lack the link with teacher's work. Not all graduates of professional teacher education programmes have a wish to continue master's studies deepening their knowledge in educational sciences or education management, not everybody wants to be a researcher or manager. Another reason is the lack of master studies in the teacher's profession in foreign languages and it leads to students giving preference to do their postgraduate studies in another country or university. One third of the respondents (102 out of 300) want to combine master's studies with work in the chosen speciality. More than half of the respondents (59 % or 177 out of 300) would be ready to continue their studies in the subject already chosen to increase their qualification and feel more secure in the potential workplace.

To develop and improve teacher's work as well as to give possibility to develop one's personality and professional identity, to make it more appealing to young people (especially men), it is of utmost importance to raise the prestige of the teacher's profession and opportunities for promotion in the career by improving the system of further education, offering opportunities for cooperation with international and non-governmental organisations, introducing a mentoring system, etc.

A teacher's work would benefit if possibilities of further professional development were offered. A teacher does action research every day to facilitate students' learning, but usually it does not go further than the walls of the particular work place. Master's studies would give teachers the chance to share their experience with other in-service teachers, learn the latest trends in the particular subject area, didactics, classroom management and civic education.

Master studies should be taking into consideration the necessity to improve the overall quality of teacher in-service education as well as trends and opportunities in school and higher education institution optimisation. The decreasing number of students and schools increases the need for teachers who can teach several school subjects. In this situation flexible study possibilities and ways should be offered to students and qualified teachers.

The system inherited from the Soviet times is oriented to separating academic and professional qualifications, and fragmented teacher education in one subject or one education level. In the changeable socioeconomic conditions it has become an obstacle for a teacher's career; the new programme should guarantee holistic solutions of social and professional problems, ensure the development of the teacher's diverse competences integrated in subject, teaching in general and research activities, thus increasing teachers' competitiveness in the labour market. The teacher's work experience and society demands show that nowadays competence in various fields is evaluated higher than fundamental knowledge in one particular sphere. This approves the current trend and the Bologna guidelines – to educate employees in a shorter period of time and in a more flexible way, emphasising the importance of lifelong learning.

## **Background**

As to Latvia, master programmes can be designed as academic and professional in accordance with the requirements of the Law on Education, Republic of Latvia, Law on Higher Education, Strategic Plan of the University of Latvia (UL) 2010. – 2020., UL Constitution (Satversme), UL Quality Policy and other normative documents. In the academic study programme a student learns and acquires content and methodology relating to one or

several branches of a science. The professional study programme combines study courses and practical learning to acquire content, methodology and skills relating to one or several branches of science and sectors of economy. A master study programme consists of a compulsory and a compulsory elective part. Studies in both parts are organised in the form of study modules or courses. The scope of studies is 80 credit points (one Latvian credit point is 1.5 ECTS, so it makes 120 ECTS), which in full-time studies may be implemented in 4 semesters/2 years. Professional master studies after a student has received the Professional Bachelor degree may be realised for the amount of 40 credit points (60 ECTS/ 2 semesters/1 year). In that case a student is not entitled to professional qualification. To obtain the professional qualification the scope of study programme is 80 credit points (120 ECTS).

Professional master study programmes should follow the regulations of the Cabinet of Ministers of the Republic of Latvia No. 481 “Regulations Regarding the State Standard for the Second Level Higher Professional Education”, requirements of the Standard of Profession so that teachers work in their profession in accordance with regulations of the Cabinet of Ministers of the Republic of Latvia No.281 “Regulation on the State General Secondary Education Standard and the General Education Subjects’ Standards” and regulations of the Cabinet of Ministers of the Republic of Latvia No.530 “Regulation on the State Basic Education Standard and the Basic Education Subjects’ Standards” and developmental trends in the European Higher Education Area.

The Programme should implement the aims and objectives of higher professional education stated in the above-mentioned regulations No. 481, which state that a master’s programme should be created on the basis of academic bachelor or professional higher education study programme, thus the total amount of credit points depending on student’s previous education and expected outcome is either 40 credit points (60 ECTS) equal to one study year or 80 credit points (120 ECTS) leading to two years of studies.

The scope of the master’s programme should be at least 40 credit points (60 ECTS). The compulsory content of a master’s programme shall comprise study courses that ensure the acquisition of the latest achievements in theory and in practice of the field at least 7 credit points (one Latvian credit point is 1.5 ECTS). Compulsory content of a short professional master’s programme shall comprise:

- theoretical and professional specialisation courses of at least 4 credit points;
- research work, creative activity work, design work and business administration study courses of at least 5 credit points;
- education and psychology study courses, at least 2 credit points;
- practice of at least 6 credit points; total practice in the specialisation 26 credit points;
- a State examination, the integral part of which shall be the development and defence of a Master thesis of at least 20 credit points.

The fifth level professional qualification shall be conferred on completion of a short professional programme (Regulations No. 481).

In order to ensure EU-wide comparable professional master's level teacher education, the program should take into account the Latvian National Development Plan in 2014. – 2020 that focuses on the topical and perspective direction in the Latvian society towards sustainable development, the need to raise the status of teacher education and teacher as a profession linking the mission of teacher with the current needs of the individual personal wellbeing and coherent development of society.

### **The European In-service Teacher Education Area**

Changes in the teaching profession require continuous updating of skills and competences from teachers, besides these skills and competences are also constantly changing. That is why in developing teacher education (TE) it is extremely important to take care that teachers get the skills and competences they need during their whole teaching career.

Although the importance of teacher in-service education is emphasized in European documents, there is no clear picture of how the defining of teachers' competences for in-service teacher education have been implemented in different countries. Organising in-service TE seems to be very heterogeneously arranged and it is not obvious how the curricula for this phase have been determined and what the contents of the courses are, or even what the teachers' needs in this phase are in different countries.

According to the questionnaire carried out by the Finnish Institute of Educational Research (FIER), University of Jyväskylä (2009) data, "the responsibility for organising in-service TE is mainly in TE institutions (78%) or in universities (65%). In principle, the contents of teachers' in-service education have been mainly determined at TE institutes (68%) or in universities (61%). Thus, usually the institution which is mainly responsible for providing teachers' in-service education also plans the contents of the education, e.g., skills and competences which should be included in in-service TE".

In Latvia TE has been regulated mainly at national level and universities and TE institutes are mostly quite independent and act quite autonomously, but receive guidelines and main rules from the ministry level. In the current situation in Latvia, higher professional qualification in TE is required in various educational fields, the level of which could be comparable in the context of the EU. In accordance with the Bologna Process, the Professional Master's Programme should apply both the models "3+2" and "4+1" thus giving possibility to graduates of professional higher education programmes to obtain the professional master's education in a five-year time. Unfortunately master level requirements, following up the Bologna process, are not necessary for a teaching qualification in Latvia and it depends on the teachers themselves to continue or not their studies at master's level and in most cases pay for their studies.

Based on the Communication from the Commission to the Council and the European Parliament "Improving the Quality of Teacher Education" (Brussels, 3.8.2007. COM (2007) 392), Latvia, in accordance with the EC Treaty, is responsible for the organization of education system and content. Communication proposals are made for teachers' knowledge, attitudes and pedagogical skills needed to facilitate the teacher's work and support research in teaching. These proposals meet the Lisbon objectives and promote a common sense of belonging to the European Education Area and foster economic competitiveness and growth.

Teaching is no longer the simple straightforward profession it used to be. Trainers must acknowledge that teaching is a global profession; recognize they are educating teachers for their future, not for the past; and therefore think and act globally in designing and implementing pre-service and in-service professional development programmes (Odina & Kuzmane 2013).

### **The Competences in Education for Sustainable Development**

The quality of TE is regarded as one key factor in determining whether the European Union can increase its competitiveness in the increasingly globalised world. The Competences in Education for Sustainable Development (ESD) adopted at the sixth meeting of the United Nations Economic Commission for Europe (UNECE) Steering Committee on Education for Sustainable Development on 7 April 2011 propose "widespread concern that the model of development that is evident across the globe is unsustainable. Education should play an important role in enabling people to live together in ways that contribute to sustainable development. The development of a sustainable society should be seen as a continuous process of learning and change, involving a variety of actors providing guidance and leadership in formal, non-formal and informal learning. This requires a corresponding enhancement in the competences of educators, leaders and decision makers at all levels of education" ("Learning for the future: Competences in Education for Sustainable Development"; ECE/CEP/AC.13/2011/6). Thus it was essential to analyse these

recommendations and pick out topical competences for implementing a sustainability oriented master study programme for teachers. The authors of UNECE have agreed upon 3 characteristics of Education for Sustainable Development (ESD): *holistic approach, envisioning change and achieving transformation* and they have applied the UNESCO (1996) framework: *learning to know, learning to do, learning to live together and learning to be* to reflect learning experiences.

From the list of 39 competences for educators in education for sustainable development, 20 competences (Table 1.) have been chosen: 5 from the holistic approach – seeking integrative thinking and practice; 9 of envisioning change – exploring alternative futures, learning from the past and inspiring engagement in the present and 6 from achieving transformation – serving to change in the way people learn and in the systems that support learning to build a sustainability oriented master study programme for teachers.

*Table 1. The Competences for educators in education for sustainable development (adapted from “Learning for the future: Competences in Education for Sustainable Development”; ECE/CEP/AC.13/2011/6)*

Characteristics of ESD	<b>Holistic approach</b>	<b>Envisioning change</b>	<b>Achieving transformation</b>
Learning experiences			
<b>Learning to know</b> <i>The educator under stands</i>	<ul style="list-style-type: none"> <li>- the connection between sustainable futures and the way people think, live and work;</li> <li>- their own; thinking and action in relation to sustainable development;</li> </ul>	<ul style="list-style-type: none"> <li>- the urgent need for change from unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability;</li> <li>- the importance of scientific evidence in supporting sustainable development;</li> </ul>	<ul style="list-style-type: none"> <li>- how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice;</li> </ul>
<b>Learning to do</b> <i>The educator is able to</i>	<ul style="list-style-type: none"> <li>- connect the learner to their local and global spheres of influence;</li> </ul>	<ul style="list-style-type: none"> <li>- critically assess processes of change in society and envision sustainable futures;</li> <li>- facilitate the evaluation of potential consequences of different decisions and actions;</li> <li>- use the natural, social and built environment, including their own institution, as a context and source of learning;</li> </ul>	<ul style="list-style-type: none"> <li>- facilitate participatory and learner-centred education that develops critical thinking and active citizenship;</li> <li>- assess learning outcomes in terms of changes and achievements in relation to sustainable development;</li> </ul>
<b>Learning to live together</b> <i>The educator works with others in the ways that</i>	<ul style="list-style-type: none"> <li>- actively engage different groups across generations, cultures, places and disciplines;</li> </ul>	<ul style="list-style-type: none"> <li>- facilitate the emergence of new worldviews that address sustainable development;</li> <li>- encourage negotiation of alternative futures;</li> </ul>	<ul style="list-style-type: none"> <li>- challenge unsustainable practices across educational systems, including at the institutional level;</li> <li>- help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist;</li> </ul>
<b>Learning to be</b> <i>The educator is someone who</i>	<ul style="list-style-type: none"> <li>- is inclusive of different disciplines, cultures and perspectives, including indigenous knowledge and worldviews;</li> </ul>	<ul style="list-style-type: none"> <li>- is motivated to make a positive contribution to other people and their social and natural environment, locally and globally;</li> <li>- is willing to take considered action even in situations of uncertainty;</li> </ul>	<ul style="list-style-type: none"> <li>- is willing to challenge assumptions underlying unsustainable practice;</li> </ul>

The four steppingstones to be taken into account: (1) sustainable development, (2) philosophical perspective, (3) wellbeing and cohesion, (4) glocalization. So it was decided to create the concept of sustainability oriented master study programme for teachers where the orientation of competences for educators were towards teaching about sustainable development; where learning outcomes would have philosophical perspectives in terms of epistemological, ontological and axiological guidelines. The meta-content and study courses of the programme should highlight wellbeing and cohesion in the content as well as in the results; should cover global and local contexts. To conclude, the graduators of the programme – teachers should act as agents of change.

### **The Concept of A Sustainability Oriented Master Study Programme for Teachers**

Based on the country background and situation analysis, the *Programme* had to be designed concerning students' previous education and experience, practice at educational institution and characteristics of the changing target audience as well as taking into account various needs and specialisations of the target audience. The programme should give the chance to the teachers with various academic Bachelor's (or Master's) degrees to obtain teacher's qualification to teach the respective school subject or professional Master's degree as well as for teachers who already have a higher professional education to obtain a professional Master's degree in education or a professional Master's degree and qualification of teacher of another school subject.

**The aim of the programme** is to ensure professional Master's studies in teacher education that are directed to personal wellbeing and the coherent development of society encouraging development of both interdisciplinary pedagogical competence and independent integrated pedagogical and research activity which would be – sustainable-development-oriented, and providing an opportunity to obtain qualification as a subject teacher.

### **The objectives of the programme:**

- To ensure critically reflective understanding of education and pedagogical activity to facilitate personal wellbeing and coherent development of society as well as the competence of implementing it in professional practice;
- To facilitate the development of professional competence in connection to labour market and global social needs, and applying it in critically reflective professional practice;
- To ensure the improvement of research skills directed to sustainable development and integrate them in one's own pedagogical practice in diverse social environments;
- To educate the fifth-level teacher professional qualification specialists thus facilitating their competitiveness in the changeable local and global socioeconomic conditions;
- To facilitate a sense of belonging to the common European education area and acquiring the skill of critically evaluating its diversity, thus, improving professional practice in national cultural environment and advancing responsibility for one's own professional development in the context of life-long education and life-long learning.

### **The anticipated results of the study programme:**

The Professional Master's competence is to be formed by three interrelated sets of study results: (1) the epistemological aspect of professional competence in cognitive activity; (2) the ontological aspect of professional competence in integrated pedagogical practice and research and (3) the axiological aspect of professional competence in pedagogical practice directed to personal wellbeing and coherent development of society. This classification is conditional, however it deepens understanding and facilitates the multi-faceted development of teacher's professional competence. Each set of competences includes general study results that characterise the entire Master's Study Programme. These study results are specified in learning outcomes that describe what a learner is **expected to know, understand and be able to**

**demonstrate after successful completion of a process of learning.** They are statements of **concrete and verifiable signs** that witness/certify how the planned competences, including the required levels of knowledge, are being developed or acquired and they ensure consistency and integrity of the entire master's study programme.

**The epistemological aspect** of a moral theory focuses on how people figure out what is right and wrong, or good and bad, rather than the set of facts that actually makes these judgments true. It covers the questions of reflection, knowledge as such (the methods and means of singling out and cognizing a definite object, their adequacy, the truth or falsity of self-reflection, etc.). The questions to be asked: *What is the nature of knowledge? How do we come to know? How do we know what a child knows?*

The learning outcomes concerning **the epistemological aspect of professional competence in a cognitive activity** would mean that a student:

- Can find, obtain and select information in accordance with particular pedagogical aims;
- Analyses, synthesises and evaluates the information obtained in accordance with particular pedagogical aims and objectives;
- Can communicate the information clearly and convincingly based on both cognitive and affective processes and taking into account the characteristics of the target audience in various social and cultural contexts;
- Can enlarge one's knowledge and understanding by carrying out research and studying in foreign languages;
- Demonstrates deeper interdisciplinary knowledge and its critical understanding obtained in research and pedagogical practice;
- Demonstrates deeper knowledge and critical understanding of national characteristics and developmental trends of education in the common European education area.

**The ontological aspect** is related to questions of being (such as what exists, where, how, why), concerned with the nature of reality and raises the questions of the assumptions researchers have about the way the world operates and commitment held to particular views. The questions to be dealt with: *What issues are related to nature, existence, or being? Is a child inherently evil or good? How might your view determine your classroom management?*

According to **the ontological aspect of professional competence in integrated pedagogical practice and research** as learning outcomes, the student:

- Demonstrates skills of planning and implementing one's pedagogical practice in connection to requirements of labour market, social needs and innovative trends in education science and practice; taking risks to implement new solutions;
- Implements positive interaction and demonstrates a positive attitude in diverse social environments ensuring pedagogical process;
- Demonstrates an innovative pedagogical approach to dissemination and implementation of the results of solving problems connected with well-being and coherent development of society;
- Participates in research activities improving one's professional practice;
- Works together with other professionals in a team;
- Demonstrates skills of adapting to new situations and ensuring pedagogical practice in changeable social conditions;
- Can evaluate one's own professional competence; can plan and direct one's own education in the context of life-long learning.

**The axiological aspect of professional competence in pedagogical practice directed to personal wellbeing and coherent development of society** raises questions: *Is morality defined by our actions, or by what is in our hearts? What values should be taught in character education? What values should one live by? What do I value? How do I value, and how do I make value decisions?*

Axiology is the science of inquiry into human values. This inquiry enables people to

identify the internal valuing systems that influence their perceptions, decisions and actions to clearly understand.

It is expected that the student:

- Demonstrates deeper knowledge and critical understanding of the contribution of education to ensuring wellbeing and coherent development of society, and to sustaining and improving quality of life for one's own and the following generations;
- Demonstrates skills of solving problems connected to well-being and coherent development of society as well as taking responsibility about personal input in problem solving during pedagogical practice;
- Is aware of contribution of one's professional practice to solving problems connected to well-being and coherent development of society.

The above-mentioned anticipated results should be reflected in learning outcomes of every course of the programme. Having defined the aim, objectives, learning outcomes, and the audience of the possible master study programme for teachers, the next step is to decide about its structure

### **The Structure of a Sustainability Oriented Master Study Programme for Teachers**

Based on the needs analysis, a professional master's study programme should be considered for two target groups:

1. *Students with higher education.* Students of this group will study for a professional Master's degree in education as well as master specialised knowledge of content and psychology and pedagogy in the particular subject; will gain understanding of regularities and scope of teacher's work; will be able to work professionally and apply the gained theoretical knowledge and skills in the particular school subject.
2. *Students with higher pedagogical education – teacher's qualification.* Students of this group will master competences necessary for a professional Master's degree in education or knowledge and competences necessary for a professional Master's degree and for the teacher of the selected school subject.

Completing the requirements of the Programme, the students will obtain professional qualification, which will give them the chance to teach the particular subject at the educational institutions implementing programmes of basic education, minority education, professional education, and general education, and a professional Master's degree in education allowing them to continue their studies for doctoral degree.

The chief innovation (Figure 1.) is the modular structure of the program, flexible time of studies, bilingual studies – in the Latvian and English languages thus ensuring integrated studies of the foreign language and course content, interdisciplinary approach; facilitating link of the anticipated results with the professional specialisation of the students; integration of didactics and research improving the research skills and managing learners' research process and works.

**Professional Master’s Study Programme TEACHER**

<i>Result</i>	<i>Structure of Programme</i>				<i>Parts of prog.</i>
<b>Master’s degree in education</b> *	Master’s courses **		14 CP		<b>Part A compulsory</b> 40 CP
	Master’s Practice in Research CP		6		
<b>Teacher’s qualification</b>	Master’s Thesis		20 CP		<b>Part B compulsory elective</b> (depending on chosen qualification) 16 CP
	Teaching Practice III 8 CP				
	Subject teaching/learning methodology I 8 CP				
	Education sciences courses 12 CP		Subject content I 12 CP		<b>Part B elective part</b> (depending on previous education) 24 CP
Teaching Practice I 6 CP Teaching Practice II 6 CP		Subject content II 12 CP			
<b>2nd teacher’s qualification</b>			Subject teaching/learning methodology II 12 CP		
<b>*Study plan 1</b> Without teacher’s qualification	<b>Study plan 2</b> Choice from 27 qualifications	<b>Study plan 3</b> Choice from 30 qualifications	<b>Study plan 4</b> Choice from 4 pairs of qualifications		
<b>Previous education</b> – 2 <sup>nd</sup> level higher professional pedagogical education (or comparable higher education) with teacher’s qualification	<b>Previous education</b> – Bachelor’s or Master’s degree (or comparable higher education) <b>related to</b> the obtainable qualification of subject teacher.	<b>Previous education</b> – 2 <sup>nd</sup> level higher professional pedagogical education (or higher education that is comparable to this) that entitles to teach subject of <b>different</b> scientific field from the qualification	<b>Previous education</b> – 2 <sup>nd</sup> level higher professional pedagogical education (or higher education that is comparable to this) ‘that entitles to teach Science and subject of related field to the obtainable qualification, if the applicant has completed study courses in at least two of the following fields - Chemistry , Physics, Biology or Environmental Studies, the volume of which is at least 5 CP in each field		
Total in Study Programme <b>40 CP</b>	Total in Study Programme <b>80 CP</b>	Total in Study Programme <b>80 CP</b>	Total in Study Programme <b>80 CP</b>		

Figure 1. Structure of Study Programme.

\*\*CP – credit points



## **Self-evaluation of the Concept and Structure of the Master Study Programme for Teachers**

The created master study programme has been implemented and SWOT analysis has been carried out to explore the strong points of the programme, things to improve, what one should be conscious of and what the opportunities are.

### **Strengths**

- The structure and the anticipated results of the study programme, as well as master's courses in education and their learning outcomes are oriented towards sustainable education;
- The integrated aspect of sustainable development is ensured by the academic staff, researchers and non-governmental organisations involved in the programme and it characterises national and global topicalities in education and teaching/learning methodologies;
- The content and anticipated results of master's courses are characterised by the integration of interdisciplinary pedagogical, qualitative and quantitative research with ICT competences;
- The study courses are delivered bilingually – in Latvian and English thus ensuring integrated acquisition of content and the foreign language;
- The study courses are provided in MOODLE e-learning platform;
- The study courses have been planned to be delivered cooperatively by 2-3 lecturers;
- The programme has got a new approach to master's practice in research that can be conducted in the wider community apart from schools – universities, non-governmental organisations, local community, etc. and involves more extensive dissemination of research results participating in the conference, methodological board, etc.
- In the Master's thesis students can chose the most appropriate approach: monodisciplinary, multidisciplinary, interdisciplinary or transdisciplinary approach in order to design new strategies to foster personal wellbeing and coherent development of society outlining main priorities and offering action points for implementing the strategies.
- The study courses are combined in flexible elective modules;
- There are versatile possibilities to select the most appropriate and desirable teacher's qualification;
- There is on-going collaboration of academic staff to ensure further development and improvement of the programme.

### **Weaknesses**

The programme (Figure1.) has got a lot of study plans: 4 study plans with 62 options and all offered as full-time and part-time studies. So it is difficult to guarantee quality assurance in all sub-programmes of teacher qualification. The organisation of the programme is partially oriented to foreign students, not all sub-programmes can be offered in foreign languages, part of academic staff have only average level of knowledge of foreign languages especially English as well as ICT competences.

There are two lacks: lack of cooperation with similar study programmes in Latvia and internationally and lack of state financed study places that can result in students having to look for work which will affect both process and quality of studies, as well as the number of students can decrease due to the high study fee. And finally, Master's degree does not have an impact on a teacher's salary thus teachers do not have motivation to obtain master's degree.

## **Opportunities**

The encouraging things about the created Master Study Programme for Teachers are connected with the staff available and internationalisation activities carried out at universities. The possibility to use staff and students' mobility and involve guest lecturers from other countries is the opportunity for programme to develop, as well as experience of international projects and professional networking ensures the improvement of students' and staff competences. Competent staff is flexible to adapt the content of the study programme to the changes in labour market and they can offer study courses in MOODLE environment thus ensuring qualitative studies also to students with an individual study plan. Another opportunity is also the focus on the development of students' professional competences focusing on practical classes, seminars, discussions, workshops in small groups.

## **Threats**

Main threats to the Programme are connected with the policy and reforms of higher education and teacher education in Latvia that are inconsistent and ambiguous. There is also low prestige of the teaching profession and a decrease of prestige of higher education in Latvia. The procedure of employing foreign guest lectures is rigid as documentation should be managed in the official language of the State and the salary of foreign guest lecturers might be inadequate and uncompetitive.

## **Potential Strategies for the Implementation of a Master Study Programme for Teachers**

There are several initiatives how to develop the programme – they can be called as a strategic plan for the following 3 years where the main foci will be: public relations, cooperation, development of staff, and quality assurance:

- Advertise the designed mission and vision of the study programme with its unique characteristics; thus facilitating its recognition and competitiveness in Latvia and abroad;
- Design and distribute advertising materials of the study programme;
- Design and apply strategies to adapt the programme to studies in English, which would be more open to foreign students and facilitate export of the study programme;
- Translate and publish the latest scientific literature on newest trends in education;
- Enter negotiations on cooperative organisation of the study programme with other Latvian institutions of higher education;
- Research the situation and design strategies of cooperating with other educational establishments to facilitate increasing prestige of the teacher's profession;
- Diversify approaches, methods, techniques and aids applied in study process;
- Facilitate the integrated evaluation of results of common exams of study courses that are combined in study clusters;
- Link the design and organisation of bachelor-master-doctoral inter-programme in cooperation with other study programmes;
- Design and apply strategy to facilitate students' active involvement in decision making concerning study process;
- Design and apply strategy to facilitate cooperation with graduates and employers;
- Get feedback from students and academic staff by more structured evaluation of the study programme organised as discussion of the involved academic staff;
- Facilitate improvement of English and ICT competences of the academic staff in seminars and sharing experience;
- Continue mentoring to educate new specialists to ensure organisation of the study programme;
- Organise experience exchange of academic staff on diversification of study process as well as other issues concerning study programme, its organisation and evaluation;

- Organise improvement of staff competence on IT including online environment to ensure its application in study programme;
- Organise seminars for academic staff to facilitate learning of English which is based on pedagogical terminology;
- Continue purposeful orientation of the study programme to sustainable development, further integration of sustainable development aspect in the content of study courses especially subject methodology, content and achievable results as well as ensure link of study courses with the regional and national economic, natural, social and cultural environment.

## Conclusion

The Professional Master's programme *Teacher* is envisaged for students who have a Bachelor' degree or the second level professional higher education (or the comparable education) to obtain a Professional Master's Degree in Education and, by choice, teacher's qualification specialising in one of the school subject fields. Upon completing Master's studies in education, graduates have an opportunity to continue their studies in the PhD programmes – Education Management and Pedagogy both in Latvia and abroad.

Several considerations:

- Students who have obtained academic education in science and want to work or already work at schools, but have not got teacher qualification, have an opportunity to obtain teacher qualification;
- As the society changes, so do the attitude and requirements for teachers. Teachers should possess high professional competence that balances knowledge, skills and experience which correspond to the requirements of contemporary society;
- Upon starting studies, the previous education and teaching experience of students with higher pedagogical education are taken into account and qualification of another subject teacher can be obtained in a shorter period of study time;
- A Master's degree will facilitate students' competitiveness in the changeable local and global socioeconomic conditions; professional responsibility for self-education in the context of life-long education and life-long learning.

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# THE IMPACT OF INTERNATIONALISATION OF HIGHER EDUCATION ON TEACHERS' PROFESSIONAL COMPETENCES AND SKILLS

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## Abstract:

Internationalisation of higher education in Central Europe has resulted in the offering of university study programmes in foreign languages, most frequently in English. This new situation means a challenge for teachers, administrators and all other stakeholders. The paper focuses on the issues connected with teacher competences to master teaching in specialised courses to international students. Besides the linguistic competence, the authors see the pedagogic and intercultural skills as key factors in shaping the university teacher profile today. The paper also proposes a framework for an in-service teacher training course based on the experience of the authors as teacher trainers. It is meant to be a contribution to the discussion on the necessity to raise teacher competence to teach in an international university environment.

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**Keywords:** internationalization of higher education, teacher training, pedagogic competence, intercultural competence

## Introduction

The process of internationalisation of the European higher education system which started in 1999 by the Bologna declaration presents many challenges for both students and teachers. The common goal clearly defined in the Declaration was creating a European space for higher education in order to enhance the employability and mobility of citizens and to increase the international competitiveness of European higher education. The Slovak Republic was one of the first signatory countries to transfer and implement the main ideas of the Declaration into the conceptualisation of higher education orientation and to initiate a new law on higher education in 2002. Since 1999 many other European documents have been issued by the Council of Europe, the European Commission and the European Parliament documenting, for example, the language policy of the European Union in support of internationalisation. Programmes, such as Erasmus, Grundtvig and Socrates have been designed to support mobility.

After almost 15 years since the Declaration was called into life, Slovak universities can observe all the abrupt changes this document had initiated. They have become partners in the European efforts to eliminate the obstacles to free mobility of students, including trainees and graduates, and teachers, researchers, and higher education administrators. One of the impacts these documents had on the system was that the universities are becoming real actors, rather than objects, of this essential process of change. Universities are changing their curricula, co-operate in pedagogic and research fields and exchange students whose mobility study is financially supported by the European Union. Even if the internationalisation of higher education is often associated with attracting foreign revenue to make up for reduced

public sector funding, there are other important aspects that present a challenge and need consideration, such as pedagogic, curricular and intercultural issues. Teachers and administrators have to deal with some or other intercultural issues to manage international students. In this article we are looking at some challenges that this process presents for university teachers who as a result of these changes teach their courses in a foreign language.

### **Burning issues connected with the internationalisation of higher education in Central Europe**

The internationalisation process of higher education space in Europe has resulted in the development of joint-degree programmes, and study programmes or simple courses offered in foreign languages. Foreign students coming to universities in Central Europe study in a foreign language (that in many cases is also a foreign language of the teacher teaching the course) and native students study in a foreign language at home universities (in courses taught by a native teacher in a foreign language). This is a completely new development which puts new demands on teachers in the sphere of pedagogy, teaching methods and approaches, and hence, and creates a need for a new range of competences. To be able to meet the requirements the in-service teachers who teach their subject-specific courses in a foreign language face a new reality they had not been professionally prepared for: they have to deal with culturally diverse groups of students both domestic and foreign, and use a foreign language, predominantly English, as a medium of instruction.

For colleagues from the USA, Great Britain or Australia where the internationalization of the curriculum has been a common place for some decades the problems raised in this article may seem obvious. We are raising questions which are intended for those who are new to this phenomenon in higher education in Central Europe because we think that the reflection on the development from the point of view of teacher competences has been yet scarcely discussed.

In foreign publications the problems of internationalisation of higher education are approached from different points of view with different perspectives. Cothran (2009) sees the problems of internationalization at US universities mainly connected with foreign languages and courses combining language and cultural learning in an interdisciplinary setting. It is difficult to grasp the meaning of an internationalised curriculum as it does not involve only the traditional distinction between home and international students, courses in a native language and courses offered in a foreign language. One of the main concepts within the internationalised curriculum are connected with inclusion, multiple perspective, and cross-cultural capability (Caruana, 2011, 3). Betty (as cited by Caruana, 2011) stresses the incorporation of an international and intercultural dimension in the context of the curriculum and the teaching and learning processes and support services of a program. As Caruana points out, in an international curriculum “nobody should be disadvantaged,... all students require some level of support in acquiring academic cultural capital and adjusting to higher education practices...it should include all students’ backgrounds and cultures.” (ibid.) This is a challenge for teachers as students in a foreign culture often struggle with new unknown administrative structures, teaching methodology, assessment requirements and a completely “strange” university environment. Dantas (2007) stresses teacher competence to deal with cultural diversity and explores a framework for situational learning within the context of intercultural and education-abroad activities. Other authors stress both the cultural and pedagogic competence “to effectively teach the growing wide range of diverse groups within US classrooms” (Banks et al., 2005). Stone (2006, 336) suggests a list of necessities to effectively internationalise student learning contexts. These include administration, curriculum and pedagogy. The challenges on the level of pedagogy and curriculum may involve:

- delivering courses and whole programmes in foreign languages (foreign-language knowledge and skills, language competence of all involved),
- developing appropriate learner-centred teaching methods that would cover the needs of students from different cultural backgrounds (pedagogic, didactic competence),
- developing communicative and social skills, facilitating positive social interaction and enduring professional relationships (interactive, social competence),
- providing opportunities for staff and students to develop „global citizenship“ competence,
- providing opportunities for exploring, understanding and promoting cultural diversity (cultural or intercultural competence) (adapted from Stone, 2006, 336).

We can see that the internationalization of higher education is a multi-faceted phenomenon which desires attention in the intercultural and pedagogic fields. Teachers who are the agents of the process of learning in an international environment should be prepared to deal with this problem effectively.

### **Developing pedagogic and intercultural competence for teaching in the international context of higher education: A case of a Slovak university**

Matej Bel University in Banská Bystrica is one of the many universities in Central and Eastern Europe that have done a lot for the development and innovation of its programmes and improvement of the quality of study so as to become competitive and attractive educational institutions for students from its own country as well as from abroad. A few years ago, this university introduced several programmes taught in English, or partly in French and German, and now it can be a suitable model to illustrate the pitfalls on the path to internationalisation. The focus of this paper is on teachers of these foreign language-medium programmes and the requirements that teaching in a foreign language puts on them.

A survey within a project funded by the European Social Fund among teachers in the English-medium programmes of this university has provided a more in-depth insight into the teaching in English-medium (or foreign language-medium) programmes. It revealed that the teachers have the language competences to successfully master the teaching though the level of individual teachers may vary. Most teachers mentioned a need for more practice in speaking skills, classroom language skills, writing skills, and intercultural competences.

Another broad area of the survey was in pedagogic and teaching skills of the teachers, where the needs have appeared to be more urgent and more demanding on the system, length, and quality of teacher training. The results of the survey pointed to a need to provide special training for in-service teachers to help them increase their confidence in teaching mastery and intercultural competence. Thus, a special teacher training course was designed to cover two areas of competences: the pedagogic and the intercultural. The added value was that English was used as a language of instruction.

### **Pedagogic competence**

Teachers at non-pedagogic universities in Slovakia are not required to have pedagogic education or training, they must be, first of all, professionals in their subject-specific area, and if they teach in an English-medium programme, they should also have adequate language knowledge. Thus the pedagogic competence of teachers is a matter left to themselves, to their natural talent and intuition. But as some distinguished Slovak experts in educational theory suggest, e.g. Ivan Turek, it should be mandatory for all university teachers to develop the creative potential, critical thinking and learning skills of students without a theoretical background in pedagogy. Many university teachers realize and acknowledge this necessity and go through some formal or informal pedagogic training on their own. In this situation, they find courses or training for in-service university teachers very helpful and are glad to take the occasional courses offered to them.

The basic philosophy of the course was highlighting different approaches to teaching, learning more about individual teachers' own approaches to teaching and giving grounds to their approaches. In general, teachers at universities have to face all the changes that go hand in hand with the new programmes, innovations, and improvements. The first thing they deal with is choosing between their own approach to teaching – either to remain with the group of traditional teachers fostering traditional ideas, norms and methods, protected from the vulnerability posed by new challenges, or to join those teachers who take the new opportunities to push through new methods of teaching. The former approach – teacher-centred approach – makes the teacher a centre of all teaching and learning and students just passive recipients of information, as there is very little interaction between the teacher and students, and the latter – learner-centred approach – gives students a chance to get actively engaged in their own learning and create their own system of knowledge and thus be able to apply the knowledge in different contexts and situations. This new approach has a constructivist basis, though constructivism as a learning theory dates back almost a century (J. Piaget, L. Vygotsky, J. Dewey).

The framework of the training course was based on a case study presenting some pedagogic problems related to teaching subject-specific courses in English. The above-mentioned survey showed that teachers are aware of this method, but their approach to dealing with case studies is backed very little by learning theories. The course allowed the participants to get acquainted with this method and to be able to apply it in their teaching practice. With this method, the teacher should be open to students' ideas and opinions and take them through, step by step, applying their acquired knowledge and knowing that there is no right decision or conclusion of the case. The steps the teacher should take with students are: a) individual preparation of students to be able to answer the guiding questions, b) clarification of the basic information of the case in groups, c) discussion of the uncovered issues with other students in the group, and d) reflection and application in individual work. In this way, students learn to understand the material of the case, proceed from the specific to the general and be able to make their own deductions. The participants of the course acquired the pedagogic knowledge about the procedure, principles and hands-on teaching skills necessary to use this method effectively.

This case study provided space to develop such teaching skills as effective use of group and pair work, questioning and discussion strategies, stating learning outcomes, and assessment techniques. Group work should be an integral part of teaching and learning and can be done both during class and outside class for homework. It has a number of benefits for the teacher as well as for the involved students. The teacher can assign the group a task that would be difficult to manage during the semester for time and other reasons, though, on the other hand, it can bring more unpredictability and work for them. Group work, among other things, helps students understand and develop content area knowledge through clarification and discussion, reinforces students' personal accountability, and their communication and interpersonal skills.

Group work provides more space for developing questioning and discussion techniques. The mastery of the teacher is also in posing questions effectively. The aim should not be only to test students' knowledge and keep their attention, but to get them to develop and use their own thinking, to analyse and evaluate the knowledge, and to bring their own conclusions. It should not be omitted that students need some "wait time" – an adequate time to grasp the meaning of the question and produce some answer. The teacher should be able to get all students involved in class discussions, which might appear as a real problem. He/she should be aware of the factors that have an impact on the successful result of the discussion. This result depends to a high degree on the number of students in the discussion group – the rules are different when the group is the whole class and when the class is divided into smaller groups. In whole class discussion the role of a moderator (the teacher or a student) is crucial



and this kind of discussion requires better discipline and more attention from both the teacher and the students. In smaller group discussion individual participants have more space to present their views, or if necessary, to ask for explanations from other partners in the group. The teacher has a role of observer, controller, motivator and helper. In an international setting, the result can also be affected by the different cultures of individual participants. There are cultures in which non-verbal communication and silent pauses have a different meaning than in central European cultures. Due to their cultural background some students are reluctant to participate in the discussion and express their opinion, which does not necessarily mean that they do not have the knowledge or ignore the work in class.

Another important part of the case study dealt with the importance of learning outcomes. The results of education, study programmes and individual courses can be only measured if their goals are clearly stated. Most universities have now formulated their missions, which give a framework to the abstract ideals of the graduates knowledge and skills. These abstract ideals should be further translated into the outcomes of individual programmes and courses with special focus on a balance between the content and skills and different levels of cognitive functions. In the survey mentioned above, some teachers had only little or no information about the university mission and had never before thought that stating learning outcomes precisely is an inevitable part of pedagogic skills. In the final reflection on the course, the trainees confirmed the necessity to have clearly defined outcomes as a guide in the teaching/learning process.

Learning outcomes are important for recognition ... The principal question asked of the student or the graduate will therefore no longer be “what did you do to obtain your degree?” but rather “what can you do now that you have obtained your degree?” This approach is of relevance to the labour market and is certainly more flexible when taking into account issues of lifelong learning, non-traditional learning, and other forms of non-formal educational experiences. (Purser, Council of Europe, 2003 in Kennedy, D., Hyland, A., Ryan, N.)

### **Intercultural competence**

The present higher education system is more often than ever before marked by frequent intercultural exchanges and exposures to different cultural issues. Hence, the intercultural competence should be an inevitable part of the teachers’ abilities in order to function successfully in a multinational education environment. So far, little has been done in the formal preparation of university teachers in this field. Kollárová (2011, 4-17) argues that the present system of formal teacher training lacks cultural education and suggests the profile of a culturally competent teacher consisting of three components: ethical culture (covering the understanding of the C-culture, i.e. literature, arts, music, etc.), linguistic culture and communication culture. This view can be equally applied to any teacher working in a multicultural academic environment.

Primarily, the development of intercultural competence has been incorporated in foreign language teaching and learning as studying a foreign language was connected with the study of the target culture (culture of the country where the language is spoken). Foreign language methodology has attempted to conceptualize the cultural direction of foreign language acquisition and stress the knowledge of culture as a prerequisite to effective communication. But we know that the intercultural approach to foreign language teaching and learning cannot be restricted only to the specific culture of the target language, as, for example, English has become a language of instruction for students from different cultural backgrounds. As a result the intercultural training should involve the ability to compare students’ native cultures with other cultures, to evaluate critically and interpret the results of such comparisons, and to apply this knowledge successfully in both verbal and non-verbal communication.

Teachers should be able to understand culture (in the most general term) as a phenomenon that influences communication and behaviour. Culture is a phenomenon that is present in daily communicative situations and as such also influences the educational environment, e. g. the interactions between teachers and students of different cultural backgrounds (Hoehn, 2011). It reflects the native and the “foreign” cultural values, beliefs, behaviours and body language, which students and teachers bring with them to the class.

Multicultural university education should be understood as a way of viewing the present world reality and a way to develop the intercultural dialogue, which should not stop at raised awareness of differences among various ethnic, racial, and cultural groups (often limited to presenting national cuisines, folklore, or funny stories from students’ or teachers’ visits abroad). Cultural diversity should be understood as the dynamics of development (evolution) – cultures need each other and each culture should be valued. Diversity should be understood as a means of enrichment rather than as a problem area. The American multicultural education principle of ‘diversity based on equality’ (Parkay – Stanford, 2009, 123) can be well applied in our context as part of the cultural understanding of the challenges of present society.

### **The framework for intercultural teacher training**

The cultural component of teacher training should enable teachers to understand all aspects of cultural diversity, such as different cultural values, deep anchored beliefs, norms, attitudes and ways of thinking which determine the behaviour of members of different cultures. Teachers should be able to look at their own culture from a different perspective, to overcome stereotypical thinking and evaluate the contribution of all cultures to the global world dialogue of cultures. We believe that this knowledge and attitudes of openness, curiosity and a willingness to gain new cultural knowledge will lead to accepting other cultural identities and respecting them.

The intercultural competence may be seen in terms of a pedagogic triangle of cognitive, affective and behavioural domain which means that teachers should be equipped with a whole set of specific cultural knowledge, positive attitudes and intercultural skills.

Based on the experience of providing in-service training to university teachers as part of an educational project supported by the European Social Fund we propose a possible framework of a teacher-training course aimed at developing the intercultural competence.

### **Aims and objectives of the course**

The overall aim of the course is to raise cultural awareness that can help teachers function successfully and effectively (Stone, 2006) in the multicultural educational environment. The objectives of the course are a) to familiarize teachers with basic concepts of culture, cultural values and cultural stereotypes; b) to allow teachers to look at their own culture from a different perspective; c) to give teachers the opportunity to experience the cultural difference and share their views and opinions; d) to shape teachers’ beliefs, views and attitudes to cultural differences and e) to sensitise their approach to dealing with culturally diverse students.

### **Content of the course**

The content of the course includes cultural topics based on socio-cultural and anthropological theories of culture as a whole set of human activities and material products, beliefs, view of the world, ways of thinking, values, patterns of behaviour and knowledge shared in a human community. From the definition of a culture the training moves to a better understanding of cultural values that determine behaviour. This may be done by comparing

and contrasting, which leads the participants of the course to look – on the one hand – at their own individual and national values, norms and beliefs and – on the other hand – to acquire more sensitivity towards norms and values prevalent in cultures other than their own. The next step is dealing with critical cultural incidents (including examples from their own teaching practice) where the participants can analyse the situation, discuss possible approaches to solve the problems and apply the acquired knowledge of cultural values and differences. This step helps them also to acquire more sensitivity towards generalisations and stereotypical views of other cultures. To sum up, the proposed topics are:

1. Culture, characteristics and dimensions of cultures (based on Hofstede's and Trompenaars & Humpden-Turner's theories); individual, national and company/school/university culture.
2. Cultural values and their comparison.
3. Cultural diversity in the classroom and approaches to its management.
4. Body language and non-verbal communication across cultures.
5. Stereotypes and how to deal with them.

### **Training methodology**

The training methods are based on interaction and learner-centred approach. No lectures on selected topics delivered by a trainer but active involvement of all participants in exploring, problem-solving, discussion and argumentation. The trainer serves as a provider of basic concepts and facilitator of the learning. Simulation is the best method to transfer the participants into somebody else's skin and experience the difference.

Small case studies enable exploring cultural issues and the analysis of critical incidents help shape sensitivity. Here the Kolb's learning cycle model may be applied (experiencing the situation or acquiring information; reflecting on the experience or information and building a general theory of what this information might mean; forming abstract concepts and generalizations; testing the implications of these concepts in new situations).<sup>74</sup> The DVD training material *Diverse Europe at Work* has proved to be a useful and effective tool to reach these objectives.

To conclude, all interactive methods were chosen with the aim to offer teachers some stimuli for thinking, shaping their views and attitudes and applying the gained knowledge and experiences in their everyday teaching (Zelenková, 2010).

### **The outcomes**

At the end of the course the participants showed good understanding of culture as a dynamic construct that influences the educational environment and teacher-student interaction. Through active participation in exploring and problem solving of culture-specific problems they were also able to develop a set of actions to react to cultural differences, to accept and tolerate them, and even to capitalise on them in the teaching-learning process. The course helped teachers in discovering common human values in students, getting out of stereotypes in teaching and assessing students, and design a set of actions to negotiate the disruptions.

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<sup>74</sup> *Diverse Europe at Work* – a DVD training course, scenarios and DEW Training Manual were published by DEW Partnership, 2010 as a result of a an international project within the Lifelong Learning Programme of the European Union. ISBN 978-973-8401-28-0.

We hope that this process of building teacher intercultural competence that was designed to follow a spiral from cognition (what is culture) to emotion (understanding values and stereotypes) will be transformed into action in practical teaching practice.

## Conclusion

Internationalisation of higher education brings a lot of challenges for teachers as well as students. Teachers are those who are the major driving force to move the development and innovation of study programmes forward at an international level. They have to be professionals in their subject-specific areas and have the potential to design new programmes and innovate the existing ones and to bring these programmes into life. These tasks put a lot of responsibility and new requirements on their competence to teach in a foreign language. In this situation, they can appreciate any opportunity to develop and improve their pedagogic skills. A good example of helping teachers teaching in English-medium programmes can be the teacher training course offered by a Slovak university which is described in this paper.

The course was intended to respond to the needs of these teachers in the area of pedagogy, cultural awareness and intercultural communication, and the English language. The results of the course and the reflection of the participants confirmed that teachers need to develop these competences and we believe that the acquired pedagogic knowledge and skills will make a contribution to the improvement of quality of study programmes in foreign languages.

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# PROCEDURE AND DOCUMENTS UNDER ARTICLES III AND IV OF NEW YORK CONVENTION ON RECOGNITION AND ENFORCEMENT OF ARBITRAL AWARDS: COMPARATIVE PRACTICE OF LATVIA AND GEORGIA

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## Abstract

The publication aims to inform foreign legal professionals of the procedural steps and hurdles that they may face when seeking recognition and enforcement of foreign arbitral awards in Latvia and Georgia. It is also hoped that the article will facilitate uniform interpretation and application of 1958 *New York Convention on Recognition and Enforcement of Arbitral Awards* in Latvia and Georgia. With comparative analyses of case law regarding Article IV of Convention the authors indicate the inaccuracies made by the judges in the respective jurisdictions when recognizing and enforcing foreign arbitral awards and suggest how to comply with the spirit of *New York Convention*.

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**Keywords:** 1958 New York Convention, Article IV, Latvia, Georgia, recognition and enforcement of foreign arbitral awards

## Introduction:

In 2005 Georgia and the Republic of Latvia signed *Agreement on Cooperation in the Spheres of Economy, Industry, and Science and Technology* providing that the contracting parties shall, within the framework of their respective national laws and taking into account their international obligations, develop, strengthen and diversify economic, industrial, scientific and technical cooperation on the mutually beneficial basis and in all spheres of mutual interest (Article 1 part 1).<sup>75</sup> By presenting this article the authors contribute to the implementation of this Treaty in a micro level. But, most importantly, as both countries strive to attract foreign investments, promote international trade in general, and increase economic co-operation in-between themselves in particular,<sup>76</sup> it is natural that the number of commercial disputes is and shall be increasing. Disputes are inevitable part of business transactions and most of them, with international dimension, are subject of resolution by international commercial arbitration. When this is the case, the creditor usually enforces the arbitral award in the state where the opposing party has its assets, using the mechanism of the

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<sup>75</sup> *Agreement between the Government of the Republic of Latvia and the Government of Georgia On Economic, Industrial, Scientific and Technical Cooperation* : International Treaty, adopted 05 October 2005, in force as from 24 November 2005. Published in Latvia : *Latvian Herald [Latvijas Vēstnesis]* No. 140, 03 September 2009; in Georgia : website of *Georgian Legislative Herald* 21 March 2011 <[www.matsne.gov.ge](http://www.matsne.gov.ge)> [25.09.2013]. In addition, Georgia is Latvia's development co-operation priority country. See: *Latvian Development Cooperation Policy Strategy 2011-2015* : Order No. 299 of the Cabinet of Ministers of the Republic of Latvia, adopted and in force as from 06 July 2011. Published in *Latvian Herald [Latvijas Vēstnesis]* No. 105, 08 July 2011, p. 6.

<sup>76</sup> In 2011 Latvian export to Georgia increased for 28 % more than in 2010 but import for 17%. See : *Georgia: State Profile*. Investment and Development Agency of Latvia (*In Latvian*). Available at <<http://www.liaa.gov.lv/lv/eksportetajiem/eksporta-tirgi/azija/gruzija>> [08/09/2013].

*New York Convention on Recognition and Enforcement of Arbitral Awards* (further in text: *New York Convention*).<sup>77</sup>

The *New York Convention*, with 149 contracting parties,<sup>78</sup> is the foundation on which international commercial arbitration stands. The Convention ensures the single most important advantage arbitration has over litigation - the degree of certainty a party can have that an award will be recognized and enforced almost anywhere in the world.<sup>79</sup> However, uniformity in application and harmonized interpretation of the convention is the key for the Convention mechanism to work. Promotion of uniformity requires detailed knowledge of what the courts in foreign countries are doing and how judges are reasoning in reaching their decisions.<sup>80</sup>

The authors of the present article hope that with the modest overview of their respective national case law related to certain aspects of interpretation and application of the Convention, although far from being best practices, they will make a small contribution to this important goal. Awareness of the international business and legal community on how the Convention is being applied by the courts of Latvia and Georgia will ensure their proactivity and better preparation, and may as well contribute to the improvement of the respective judicial practices. However, analysis of the case law related to the Convention as a whole is beyond the scope of the present article. Presently, the authors **aim** to compare application of Article IV of *New York Convention*<sup>81</sup> in both countries and to give practical guidelines regarding the procedure and the documents to be submitted for the recognition and enforcement of foreign arbitral awards in the respective national courts. Interpretation and application of this article is very contemporary as the practice shows that the parties and the courts do not always pay careful attention to this stage of procedure. **First part** of the article will describe the scope and application of Article IV of *New York Convention* in the respective jurisdictions of Latvia and Georgia; **Second part** will address whether and to what extent documents other than those described in Article IV are being required by the courts of Latvia and Georgia; **Third part** will describe procedural details under the two national legislations related to submission of request for recognition and enforcement of foreign arbitral awards. At the end of the article the authors will give their conclusions.

### **Scope and application of Article IV of *New York Convention***

In general, a foreign arbitral award can be enforced anywhere and the national courts of the contracting states are under obligation to recognize arbitral awards “in accordance with the rules of procedure of the territory where the award is relied upon”, and “under the conditions laid down in the [Convention]” (Article III of *New York Convention*). The *rules of procedure* referred to in the Convention are limited to questions such as the form of the request and the competent authority for which the Convention defers to national law. The

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<sup>77</sup> *United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards*. 330 UNTS 38, 1968. Convention is in force as from 13 July 1992 in Latvia and as from 31 August 1994 in Georgia.

<sup>78</sup> For the most updated status of the Convention please visit <[http://www.uncitral.org/uncitral/en/uncitral\\_texts/arbitration/NYConvention\\_status.html](http://www.uncitral.org/uncitral/en/uncitral_texts/arbitration/NYConvention_status.html)> [20.08.2013].

<sup>79</sup> Kronke H., Nacimiento P., et al. (eds), *Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary on the New York Convention*. Kluwer Law International 2010, p. 2.

<sup>80</sup> *Ibid*, p. 3.

<sup>81</sup> Article IV of *New York Convention*:

1. To obtain the recognition and enforcement mentioned in the preceding article, the party applying for recognition and enforcement shall, at the time of the application, supply:
  - (a) The duly authenticated original award or a duly certified copy thereof;
  - (b) The original agreement referred to in article II or a duly certified copy thereof.
2. If the said award or agreement is not made in an official language of the country in which the award is relied upon, the party applying for recognition and enforcement of the award shall produce a translation of these documents into such language. The translation shall be certified by an official or sworn translator or by a diplomatic or consular agent.

*conditions for the enforcement*, however, are set out in the Convention itself and are exclusively governed by the Convention: in particular by Article IV – with respect to the documents that need to be submitted by the party seeking recognition and enforcement, and Article V – exhaustive grounds for refusal of recognition and enforcement.<sup>82</sup> As already noted above, the present article will analyze the “rules of national procedure” (in part III below) and the “conditions laid down in the [Convention]” (in the present part I) with respect to Article IV only, i.e. from the perspective of the documents that need to be submitted to the national courts of Latvia and Georgia in order to request recognition and enforcement of foreign arbitral awards. Grounds for refusal of recognition and enforcement under Article V, though undoubtedly important, are beyond the scope and dimension of the present article. The authors do hope to address those grounds separately in future.

Article IV of *New York Convention* sets forth formal requirements that must be satisfied when applying for recognition and enforcement of foreign awards. It requires the party seeking recognition and enforcement to provide:

- (a) A duly authenticated original award or a duly certified copy;
- (b) The original arbitration agreement or a duly certified copy.
- (c) Additionally, if the award or the agreement is not in the official language of the country where enforcement is sought, Article IV requires that a certified translation be provided.

These provisions are designed to provide internationally-uniform and transparent standards of proof, and to prevent parochial resistance to the recognition of foreign awards in the guise of formal requirements of proof.<sup>83</sup> Each of them will be addressed separately below.

### **The duly authenticated original award or duly certified copy**

The authentication of a document is the formality by which the signature thereon is attested to be genuine and the certification of a copy is formality by which the copy is attested to be a true copy of the original.<sup>84</sup> Unlike the *Geneva Convention*,<sup>85</sup> which required that authentication be made according to the laws of the country where the award was made, *New York Convention* does not specify which law governs authentication. The drafting history of the *New York Convention* suggests that the drafters decided not to include a choice of law clause regarding authentication in order to allow for greater flexibility.<sup>86</sup> The approach of scholars, legislators and courts vary on this issue with some suggesting that it is the law of the place of enforcement which stipulates how the award should be effected, in terms of form or legal requirements<sup>87</sup> and others, that the award should be authenticated in the manner required by the law of the country in which it was made.<sup>88</sup> Yet some courts, comporting with the intentions of the drafters of the *New York Convention*, take a more liberal approach and

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<sup>82</sup> *ICCA Guide to the Interpretation of the 1958 New York Convention*. International Council for Commercial Arbitration, 2011, p. 70.

<sup>83</sup> Born, G. B., *International Arbitration: Law and Practice*. Kluwer Law International, 2012, p. 374.

<sup>84</sup> **Van den Berg, A. J.** *The New York Arbitration Convention of 1958*. T.M.C. Asser Institute, The Hague, 1981, p. 251

<sup>85</sup> *Convention on the Execution of Foreign Arbitral Awards* signed in Geneva on 26 September 1927, entered into force on 25 July 1929. 52 L.N.T.S. 302 (1929), No. 2096.

<sup>86</sup> **Dirk, O.**, *Article IV*. In : **Kronke H., Nacimiento P., et al.** (eds), *Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary on the New York Convention*. Kluwer Law International, 2010, p. 177.

<sup>87</sup> **Lew J.D.M., Mistelis L.A., Kroll S.M.** *Comparative International Commercial Arbitration*. Kluwer, 2003; p.705; Supreme Court of Italy case: *Societa Distillerie Meridionali (SODIME) v. Schuurmans & Van Ginnek en BV*, dated 14 March 1995 . *Yearbook Commercial Arbitration* XXI, 1996, p. 608.

<sup>88</sup> *The Arbitration and Conciliation Act of India 1996*, Article 47 part 1 (a), available at <<http://www.arbitrations.ru/userfiles/file/Law/Arbitration%20acts/india%20arbitration%20act.pdf>> [08/09/2013].



grant the applicant a choice to comply either with the legal requirements of the country where an award was rendered or with the laws of the country where enforcement is sought.<sup>89</sup>

In **Latvia** the civil procedure law rules on recognition and enforcement of foreign arbitral awards do not specify requirements for the authentication and certification of foreign arbitral awards. Thus, as there shall not be imposed substantially more onerous conditions than are imposed on the recognition or enforcement of domestic arbitral awards (Article III of *New York Convention*), Article 531 of *Civil Procedure Law*<sup>90</sup> can be applied by analogy. Namely, the authentication of a permanent arbitration institution's award shall be as provided by the rules of the arbitration. Thus the party seeking recognition of the award shall assure that the authentication is in conformity with applicable arbitration rules. As concerns an award made by *ad hoc* arbitration the signatures of the arbitrators shall be notarially certified.<sup>91</sup>

Nevertheless, the copy of the award shall be certified in accordance with the *Law on Legal Force of Documents* providing that if normative acts do not require mandatory certification of the document by the notary, the document can be certified by organization or physical person if this person is author of the document (Article 6, part 2).<sup>92</sup> As the law does not require certifying the copy of foreign permanent arbitral institution's arbitral award by notary, the certification of a copy can be done by the arbitration institution itself. At the top of the first page of the document's copy it shall be stated "COPY" and the document shall be certified by the following text: "Copy is accurate" and it shall be signed by the official identifying the position of the official, organization represented, date and place. The copy then shall be signed by the official and the seal shall be attached.<sup>93</sup>

As evident by the case law frequently the parties do not fulfill these requirements. For example, in one case Latvian court accepted the application and initiated the procedure even though the petitioner submitted mere copy of the foreign award.<sup>94</sup> Even though both Article IV of *New York Convention* and Article 648 of the *Civil Procedure Law* of Latvia require compliance of the documents "at the time of application", it is suggested that these provisions do not be interpreted very strictly and petitioner should be able to cure non-fulfillment of the conditions without dismissing the application.<sup>95</sup> Thus, when the court of Latvia receives only mere copy of the foreign award, the judge shall make a reasoned decision leaving the application to enforce the foreign arbitral award without motion and setting a time limit not less than 20 days for rectifying the deficiencies (Article 133 of Civil Procedure Law).

Neither in **Georgia** does the Law on Arbitration or the Civil Procedure Code specify requirements for the authentication and certification of foreign arbitral awards. The *Law on Arbitration* only requires that the award be signed by the majority of arbitrators;<sup>96</sup> that means that the award must bear original signatures of the signing arbitrators. If copy of the award is to be presented, such copy must be certified as true copy of the original. If certification of the

<sup>89</sup> Supreme Court of Austria decision in case No. 30b2097/96w dated 29 May 1996, noted in **Dirk, O., Article IV in Kronke H., Nacimiento P., et al.** (eds), *Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary on the New York Convention*, Kluwer Law International 2010, p. 177.

<sup>90</sup> *Civil Procedure Law [Civilprocesa likums]* : Law of the Republic of Latvia, adopted 14 October 1998, in force as from 01 March 1999. Published in Latvian Herald [*Latvijas Vēstnesis*] No. 326, 03 November 1998.

<sup>91</sup> Article 531 of *Civil Procedure Law*.

<sup>92</sup> *Law on Legal Force of Documents [Dokumentu juridiskā spēka likums]* : Law of the Republic of Latvia adopted 06 May 2010, in force as from 01 July 2010. Published in Latvian Herald [*Latvijas Vēstnesis*], No. 78, 19 May 2010.

<sup>93</sup> *Rules on Drafting and Draw Up of the Documents [Dokumentu izstrādāšanas un noformēšanas kārtība]* : Regulations of the Cabinet of Ministers No. 78, adopted 28 September 2010, in force as from 15 October 2010. Published in Latvian Herald [*Latvijas Vēstnesis*] No. 163 14 October 2010.

<sup>94</sup> Riga City Latgales municipality court decision in case No. C29538113, 2013, unpublished.

<sup>95</sup> **van den Berg, A. J.**, *The New York Arbitration Convention of 1958*. T.M.C.Asser Institute- The Hague, 1941, p. 249.

<sup>96</sup> Article 39 section 2 of the *Law on Arbitration*.

copy of the award is made by a notary, than the document submitted to the Georgian courts must bear an apostille in accordance with the *Hague Convention*.<sup>97</sup> In Georgian court decisions on the recognition and enforcement of foreign arbitral awards authentication and/or certification is rarely an issue and thus have not been addressed in case law.

### **The original arbitration agreement or duly certified copy**

The purpose of this requirement is to establish that the party seeking enforcement supply a document that is *prima facie* a valid arbitration agreement.<sup>98</sup> It sets only procedural pre-requisites to application for enforcement and does not include verification of material validity and existence of an arbitration agreement. It is only at next phase, i.e. under Article V part 1 (a) of *New York Convention* that substantive examination of the validity of the arbitration agreement and its compliance with Article II part 2 of *New York Convention* takes place.<sup>99</sup> Consequently, while the petitioner bears the duty to supply a *prima facie* valid arbitration agreement, the burden to prove a ground for non-enforcement under Article V lies with the respondent.<sup>100</sup>

However, requirements under Article IV and defenses under Article V part 1 (a) have sometimes been confused in the Latvian case law. Namely, in one case Latvian petitioner attached the notarial deed – third persons (broker's) oath to the application for the recognition and enforcement. The deed had appendix – the document stating that all terms and conditions are set by specific standard industry rules and particular arbitration rules. In petitioner's view this was evidence of arbitration clause agreed by parties via the broker. The arbitration institution found that it had jurisdiction and that the arbitration clause was valid despite the respondent's objections. The award was made in favor of the petitioner who came to recognize and enforce the award in Latvia. The court of first instance decided to enforce and execute this foreign arbitral award, however, the second instance court *inter alia* stated that the arbitration clause was not signed by either party as required by Article II part 2 of *New York Convention* thus it could not be established that petitioner had submitted arbitration agreement in accordance with Article IV of Convention. The court agreed with the respondent that burden of proof that the arbitration agreement is validly concluded under Article II of Convention lied on the Claimant. The court also noted that it was not relevant that the arbitration institution had already decided on the validity of arbitration clause. Thus, the award was not recognized and enforced in Latvia.<sup>101</sup> As we see, instead of separating the grounds under article V section 1 (a) and procedural requirement of Article IV and applying different criteria in each case, the Court has simultaneously applied the two and measured their requirements against the same standard. Moreover, the court mixed the burden of proof, finding that it was Claimant's duty at the enforcement stage to prove validity of arbitration agreement under Article II.

### **Translations**

Article IV part 2 of *New York Convention* provides that if the award or arbitration agreement is not made in enforcing state's official language the translation shall be provided.

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<sup>97</sup> *Convention Abolishing the Requirement of Legalisation for Foreign Public Documents* concluded 5 October 1961, entered into force 24 January 1965, available at < [http://www.hcch.net/index\\_en.php?act=conventions.text&cid=41](http://www.hcch.net/index_en.php?act=conventions.text&cid=41) > [30.09.2013]. The Convention entered into force in Georgia on 14 May 2007.

<sup>98</sup> *ICCA Guide to the Interpretation of the 1958 New York Convention*. International Council for Commercial Arbitration, 2011, p. 75.

<sup>99</sup> **Dirk, O.** *Article IV. In : Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary* Ed. by H. Kronke. Kluwer Law International. 2010, p. 163; *ICCA Guide to the Interpretation of the 1958 New York Convention*. International Council for Commercial Arbitration, 2011, p. 75.

<sup>100</sup> *Ibid.*

<sup>101</sup> Riga District Court decision in case No. C-33510411 dated 13 May 2013, unpublished.

Such translation shall be certified by an official or sworn translator or by a diplomatic or consular agent.

Reviewing the case law on application of *New York Convention* in **Latvia** it can be concluded that translation of the awards and agreements are very time and cost consuming as the courts require to submit fully translated documents. In one case, only in the second instance the Riga Regional Court *inter alia* established that the translation of the foreign arbitral award was not properly certified and signed by the translator. Although the respondent did not object to the translation, the court annulled the decision of the first instance granting enforcement and sent the case back for second review.<sup>102</sup> Firstly, since *New York Convention* and *Civil Procedure Law* state that the documents and their translation shall be submitted “*at the time of application*”, the petitioner could and should have been given the opportunity to cure deficiencies during the procedure in the first instance. It is doubtful whether the court itself may raise this issue *ex officio* only at the second instance and whether it is sufficient ground for non-recognition of the award. Secondly, the second instance court had to itself decide on the recognition and enforcement of foreign arbitral award instead of sending the case back for re-review to the first instance. Article 649 part 3 of *Civil Procedure Law* explicitly states that a court shall render a decision to recognize and execute the arbitral award or to reject the application if there are grounds provided by the Article V of *New York Convention*. No procedure of remand is available under the applicable procedural law in such cases.

**Georgian** law mirrors the language of Article IV of the *New York Convention* and requires submission of properly certified Georgian language translations.<sup>103</sup> Certification of translations in Georgia is being done by notaries.<sup>104</sup> Therefore, a petitioner applying for recognition and enforcement of a foreign arbitral award in Georgia should ensure that the documents submitted to the Supreme Court of Georgia are not only translated into Georgian language, but that the properness of such translations are certified by notary.

### **Additional documents - troubling case law**

Article IV part 1 of *New York Convention* is an exhaustive set of formal requirements. Under the Convention a party seeking recognition and enforcement should not be subject to any other conditions.<sup>105</sup> Unfortunately, this is not always shared by Latvian or Georgian courts.

In one case the **Latvian** court questioned the finality of the award and for this reason used the rights provided in the *Civil Procedure Law* (Article 649 part 2) to ask additional information from the foreign arbitration institution.<sup>106</sup> This norm of the law is unreasonable as the arbitration court in another state is not bound by the order of a foreign court. Furthermore, while in the *ad hoc* cases there is no institution to ask such additional information at all. Moreover, award is a final decision of the tribunal resolving a specific issue, which has a *res judicata* effect.<sup>107</sup> Thus, in general it should not be difficult for the national court to establish whether the award is final or not. In another case<sup>108</sup> the court requested the petitioner to prove that the award had entered into force in accordance with Article 52 of *Treaty between Republic of Latvia and Russian Federation on Legal Assistance and Legal Relationships in*

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<sup>102</sup> Riga Regional Court decision in case No. 27156704 dated 24 January 2005, unpublished.

<sup>103</sup> Article 44 part 2 of the Georgian *Law on Arbitration*.

<sup>104</sup> *Notary Law of Georgia*: Law of Georgia №2283, adopted 04 December 2009, Published in Parliament Herald No. 46 on 22 December 2009, Article 38 part 1 (h).

<sup>105</sup> **Dirk, O., Article IV in Kronke H., Nacimiento P., et al.** (eds), *Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary on the New York Convention*. Kluwer Law International 2010, p. 148.

<sup>106</sup> Riga City Latgales municipality court case No. C29538113, 2013, unpublished.

<sup>107</sup> **Lew, J. D.M.; Mistelis, L. A.; Kroll S. M.** *Comparative International Commercial Arbitration*. Kluwer, 2003, p. 699.

<sup>108</sup> Liepaja City court decision in case No. 3-11/06808 dated 12 March 2008, unpublished.

*Civil, Family and Criminal Cases.*<sup>109</sup> First, the Treaty does not apply to recognition and enforcement of foreign arbitral awards. Secondly, the conditions mentioned in Article IV of *New York Convention* are the only conditions with which the party seeking enforcement of a Convention award has to comply,<sup>110</sup> thus the court may not request any additional document, for instance, certification acknowledging the force of the award. Moreover, validity of the award or other grounds for challenge is a second stage, regulated under a separate mechanism of Article V part 1.

In the **Georgian** practice, the Supreme Court tends to request submission of a yet different document – proof that the award had not yet been enforced in the country where it had been rendered. By the decision of 17 May 2011 Supreme Court of Georgia<sup>111</sup> granted enforcement to an award of the International Commercial Arbitration Court by the Ukrainian Chamber of Commerce and Industry. The descriptive part of the decision notes, that initially party's application was not admitted by the Court and the petitioner was granted additional time to present a proof that the award had not been enforced in Ukraine. Only after the petitioner submitted a certification issued by the state enforcement bureau of the Ukraine Komsomolsk Region service center did the Court find party's application admissible and eventually enforced the award. However, less fortunate appeared to be the fate of the arbitral award made in London under the *UNCITRAL Arbitration Rules*.<sup>112</sup> With its order of 28 September 2012 Supreme Court of Georgia requested the petitioner within the set additional period of time to present a certification that the UNCITRAL award dated 25 October 2010 had not been enforced. The petitioner sought extension of the allocated time frame since it was unable to obtain such certification under English law. The extension had been granted, however petitioner decided to withdraw its application for recognition and enforcement altogether, since it found impossible to present such document to the Supreme Court of Georgia. By the decision of the Supreme Court of Georgia dated 26 November 2012<sup>113</sup> the motion of the petitioner requesting recognition and enforcement of the said was left without consideration.

This trend is troublesome for several reasons: Firstly, it is unclear what is the rationale of the Supreme Court when it requests proof that the award has not been enforced in the country where it was made. It may be argued that the Court's aim is to safeguard from double recovery of the petitioner. However, how can that interest be protected in the context of international commercial arbitration where the award is open for enforcement in any country of the world where award debtor may appear to have assets? Would any certification from London or Komsomolsk guarantee that the award has not already been enforced in any other country? And should the Supreme Court be safeguarding that interest at all? It is obvious that any such rationale lacks merit and comes in conflict with the spirit of the *New York Convention*. Secondly, as already noted above, Supreme Court is not authorized to request presentation of any document other than the ones noted in Article IV of *New York*

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<sup>109</sup> *Treaty Between Republic of Latvia and Russian Federation on Legal Assistance and Legal Relationships in Civil, Family and Criminal Cases* : International Agreement, adopted 03 February 1993, in force as from 28 March 1995. Published in Latvian Herald [*Latvijas Vēstnesis*] No. 394/396 30 November 1999. Article 52 provides:

*An application for enforcement of a judgment shall attach 1) the court's certified copy of judgment, official document attesting that the judgment's has come into force [..].*

<sup>110</sup> **van den Berg, A. J.** *The New York Arbitration Convention of 1958*. T.M.C.Asser Institute- The Hague, 1941, p. 248.

<sup>111</sup> Supreme Court of Georgia decision in case No. a-548-sh-10-11, available at <[www.supremecourt.ge](http://www.supremecourt.ge)> (in Georgian) [25/09/2013].

<sup>112</sup> United Nations Commission on International Trade Law Arbitration Rules, UN Doc A/31/17, 1976.

<sup>113</sup> Supreme Court of Georgia decision in case No. a-3573-sh-73-2012, available at <[www.supremecourt.ge](http://www.supremecourt.ge)> (in Georgian) [25/09/2013].

*Convention*. Documents like the one requested or the proof that the award is final come in conflict with the purpose and spirit of the *Convention*.

The courts of Latvia and Georgia should be aware of the drafting history of the *New York Convention*, and its explicit abolishment of double *exequatur* allowed under its predecessor *Geneva Convention*.<sup>114</sup> By requesting additional documents, the courts of Latvia and Georgia make the respective countries default under their international obligation<sup>115</sup> and risk earning reputation of arbitration hostile countries.

### **National Rules related to procedure, possibility of appeal, limitation period, and costs**

The “rules of procedure” are “limited to questions such as the form of the request and the competent authority for which *New York Convention* defers to national law.”<sup>116</sup> In case of Latvia such rules of procedure are provided in part F of the *Civil Procedure Law* consisting of seven articles only. In Georgia such rules are laid down in the *Civil Procedure Code of Georgia*.<sup>117</sup>

In accordance with the *Civil Procedure Law* of **Latvia** the application for recognition and enforcement shall contain certain information, including, information on parties, bases and circumstances of the claim and the relief (Article 648). If this information is not provided the court does not proceed with case and gives time to the petitioner to eliminate drawbacks. If the petitioner does not cure the mistakes in the certain period of time the application is returned. The practice shows that the petitioners usually are very brief in their applications and fulfill the requirements of the national rules. The time frame for courts to consider and decide on applications for recognition and enforcement of foreign arbitral awards is not set by the law thus it may vary from case to case.

**Georgian** law does not prescribe specific requirements for application for recognition and enforcement, other than those mirroring provisions of Article IV of the *New York Convention*. However, Article IV implies some other requirements, which are valid for general applications of claim in the Georgian courts. In order to enable a court to decide on an enforcement application, an award should, apart from the names of the parties, contain at least the issues decided and the relief granted by the tribunal. Furthermore, the award should contain a date on which it was rendered to verify that applicable statutes of limitation are not violated. If the award does not describe the relief granted, there would be nothing to enforce, thereby rendering the award ineffective.<sup>118</sup> In practice, these requirements are rarely violated and applications for recognition and enforcement of foreign awards come in compliance with them. As regards the time frames, they are extremely short under Georgian legislation. The court only has 10 days to consider petitioner’s application and make a decision regarding recognition and enforcement of the award.<sup>119</sup> It is probably due to these tight time frames that the default position is that applications for recognition and enforcement are considered by the court without oral hearing. The court sets oral hearing in certain circumstances when it considers the hearing appropriate and notifies the parties of the date and time of the hearing,

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<sup>114</sup> Article 4 part 2 of the *Geneva Convention* expressly required submission of “documentary or other evidence to prove that the award has become final”. This requirement was explicitly abolished by the drafters of the *New York Convention*.

<sup>115</sup> *ICCA Guide to the Interpretation of the 1958 New York Convention*. International Council for Commercial Arbitration, 2011, p. 30.

<sup>116</sup> *ICCA Guide to the Interpretation of the 1958 New York Convention*. International Council for Commercial Arbitration, 2011, p. 70.

<sup>117</sup> *Civil Procedure Code of Georgia*: Law of Georgia №1106, adopted on 14 November 1997, Published in Parliament Herald No. 47-48, 31 December 1997.

<sup>118</sup> **Dirk, O.** Article IV. In : **Kronke H., Nacimiento P., et al.** (eds), *Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary on the New York Convention*, Kluwer Law International 2010, p. 154.

<sup>119</sup> Article 356<sup>21</sup> part 3 of the *Civil Procedure Code of Georgia*.

though their non-appearance would not hinder the process.<sup>120</sup> The 10 day period may only be extended if court considers extension for no more than 30 days appropriate in circumstances when the application for setting aside or suspension of an award has been made,<sup>121</sup> or when the court considers adjournment of recognition and enforcement proceedings appropriate upon the application of the party against whom the award is made.<sup>122</sup>

Article 649 part 5 of *Civil Procedure Law* of **Latvia** simply provides that the court decision on recognition may be appealed. As this legal norm does not explicitly identify whether the decision can be appealed to second and/or also to third instance (Supreme Court) the case law is not unified. For example, in one case the Supreme Court allowed appeal in all three instances<sup>123</sup> but in another case denied to initiate the proceedings in the Supreme Court.<sup>124</sup> The legislator shall make this norm clearer. Contrary to Latvia, in **Georgia**, exclusive authority for recognition and enforcement of foreign arbitral awards lies with the Supreme Court of Georgia, whose decision is final and may not be appealed.<sup>125</sup>

In **Latvia** the state duty for recognition and enforcement of national or foreign awards is 1 % from total sum of the claim but not more than 200 LVL (~ 284 EUR),<sup>126</sup> thus Latvian legislator has satisfied Article II of *New York Convention* providing that there shall not be imposed substantially higher fees or charges on the recognition or enforcement of arbitral awards than in are imposed for the domestic arbitral awards. **Georgian** law<sup>127</sup> likewise prescribes uniform state duty for applications for recognition and enforcement of domestic and international awards; however the amount of the fee is significantly higher than in Latvia or in majority of other states – 3% of the value of the award. Moreover, Georgian law only prescribes the lower limit, i.e. that the fee may not be less than 300 GEL (~EUR 130), no upper cap is set. This makes recognition and enforcement of awards in Georgia extremely expensive and it is anticipated that the legislator will be reducing the fee to a lower fixed amount of sum.<sup>128</sup>

*New York Convention* does not prescribe limitation period for filing applications for enforcement of arbitral awards. Article III leaves the issue to the domestic law of the enforcing court.<sup>129</sup> *Law on Arbitration* of **Georgia** does not prescribe a specific limitation period for applications for recognition and enforcement of awards. General limitation periods are regulated in the *Civil Code of Georgia*, which prescribe 10 years for the enforcement of final court decisions.<sup>130</sup> It is presumed that the same time frame will be applied by analogy to the recognition and enforcement of arbitral awards. Though, it is questionable, whether Georgian courts will apply Georgian regulation in all cases, or will rather take into consideration the limitation period prescribed by law applicable to the

<sup>120</sup> Article 356<sup>21</sup> part 2 of the *Civil Procedure Code* of Georgia.

<sup>121</sup> Pursuant to Article 45 part 2 of the *Law on Arbitration* of Georgia.

<sup>122</sup> Pursuant to Article 44 part 3 of the *Law on Arbitration* of Georgia.

<sup>123</sup> Supreme Court of Latvia decision in case No. SKC-395/2010 dated 13 January 2010, available at <<http://www.at.gov.lv/files/archive/department1/2010/395-la.doc>> (in Latvian) [08/09/2013].

<sup>124</sup> Supreme Court of Latvia decision in case No. SKC-9535/2012 dated 01 January 2012, available at <<http://www.at.gov.lv/files/archive/department1/2012/953-skc-2012.doc>> (in Latvian) [08/09/2013].

<sup>125</sup> Article 44 part 1 and Article 6 of the *Law on Arbitration* of Georgia; Article 356<sup>21</sup> part 6 of the *Civil Procedure Code* of Georgia.

<sup>126</sup> Article 34 part 1, point 8 of *Civil Procedure Law*.

<sup>127</sup> *Law of Georgia on State Fees*: Law of Georgia №1363, adopted 29 April 1998, Published in Parliament Herald No. 19-20, 30 May 1998, Article 4 (1) (a<sup>2</sup>).

<sup>128</sup> The author of the present article is member of the working group by the Ministry of Justice of Georgia drafting propositions for the amendments in the legislative framework related to arbitration. One of the amendments strongly advocated by the working group members is reduction of the state fee for the recognition and enforcement of arbitral awards. It is yet to be seen whether the proposition will be shared by the Ministry of Justice and later passed in the Parliament.

<sup>129</sup> Börner, A. Article III in Kronke H., Nacimiento P., et al. (eds), *Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary on the New York Convention*. Kluwer Law International, 2010, p. 126.

<sup>130</sup> Art. 142.

substance of the dispute. This latter approach has been adopted by certain civil law countries, which consider limitation periods to be the matters of substantive, rather than procedural law.<sup>131</sup> In **Latvia** the general rule of the limitation is provided in Article 1895 of *Civil Law* stating that the limitation period arising out of rights of obligation is 10 years.<sup>132</sup> Most likely this provision will be applied also for procedural matters, including applications for recognition and enforcement of arbitral awards.

### **Conclusion:**

While both Latvia and Georgia are parties to the *New York Convention*, their legal and judicial frameworks in parts depart from the spirit of the Convention and express provisions under Article IV prescribing exhaustive list of documents needed for applications for recognition and enforcement of foreign arbitral awards. These issues should be kept in mind by foreign lawyers when dealing with or anticipating recognition and enforcement of arbitral awards in Georgia and Latvia respectively. The same points should also be taken into account and reconsidered by the national legislators and/or judges, as the case may be, in order to ensure compliance with the Convention and establishment of arbitration friendly frameworks in the countries of Latvia and Georgia.

The biggest hurdle in Latvia seems to be that the courts do not have a grasp of the allocation of burden of proof set by the Convention. They also tend to mix the tests under article V and article IV of the Convention. Furthermore, the court's authority to require proof of finality of arbitral awards from arbitral institutions are at odds with the history and purpose of the *New York Convention* setting limited and exclusive list of documents under Article IV. In Georgia, where provisions of the *Law on Arbitration* mirror the language of Article IV of the Convention, the problem lies with interpretation of its letter by the Supreme Court and the tendency to require from applicants proof that the arbitral award has not yet been enforced in the country where it was made. This requirement puts additional onus on petitioners seeking recognition and enforcement of awards under the Convention regime. It is suggested that both Latvian and Georgian judges consider the Convention as a superior source of law and apply it in line with its express language and purpose.<sup>133</sup>

Both Latvian and Georgian courts give the petitioners opportunity to cure deficiencies in application and in both countries it is likely that general 10 year limitation period will apply for applications for recognition and enforcement of foreign arbitral awards.

Foreign lawyers should keep in mind that while the time frames for consideration of applications for recognition and enforcement are extremely short in Georgia (10 days), the state duty that the petition is required to pay are extremely high, equaling to 3% of the value of the award. In Latvia, the state duties are more reasonable, equaling to 1 % from the total sum of the claim with 200 LVL (~ 284 EUR) as an upper limit, while the time frame for the court to consider the application and decide on recognition and enforcement may last even a few years. The expansive time range in Latvia is due to the fact that the courts authorized to consider applications for recognition and enforcement of foreign awards are first instance courts, with no certainty in law or case law whether these decisions can be further appealed in

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<sup>131</sup> **Börner, A.**, *Article III* in **Kronke H., Nacimiento P., et al.** (eds), *Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary on the New York Convention*. Kluwer Law International, 2010, p. 126-127.

<sup>132</sup> *Civil Law of the Republic of Latvia [Civillikums]* : Law of the Republic of Latvia, adopted 28 January 1937, re-in-force as from 01 September 1992. Published in Government Herald [*Valdības Vēstnesis*] No. 41, 20 February 1937.

<sup>133</sup> Pursuant to the *Law on Normative Acts* of Georgia : Law of Georgia №1876, adopted 22 October, 2009, Published in Parliament Herald No. 33, 09 November 2009, Article 7 section 3 international conventions stand higher in the hierarchy of norms in comparison with ordinary laws of Georgia. In Latvia Article 5 of Civil Procedure Law provides the same.

one or two instances. Contrary, in Georgia, the authorized court is the Supreme Court of Georgia, whose decision is final and subject to no appeal.

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# RESPONSIBILITY FOR PREMEDITATED MERCENARY MURDER OR CONTRACT KILLING

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## Abstract

Mercenary is very old, at the same time dangerous stimulus of anti-social action. It originated and evolved along origin and development of the property as negative moral quality of public life. The mercenary motive of a killer is to get some material benefit or release from material expenses. However, murder cannot be considered as a mercenary crime if the aim of an offender is not getting property but maintaining it, even though an offender's special instinct, greed, etc. is revealed in murder. The variety of mercenary crime is contract killing. Self-interest is clearly expressed in it. Rarely, but it is possible contract killing and mercenary murder not to have any relation. If a killer got the order of murder and committed it with appropriate reward, the action should be qualified under the paragraph "G" of the Part 3 of the Article 109 of the Criminal Code, but order and self-interest should be indicated in the accusation. In this case, the qualification of a crime is not changed, but the double aggravating circumstances may be taken into account in the final sentence. As for an organizer of the murder, if he/she ordered killing without material compensation, depending on the specific situation, his/her action should be qualified as an organizer of contract killing or instigator of the murder.

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**Keywords:** Mercenary, mercenary crime, contract killing

## Introduction

Mercenary is a human's most negative quality, moral decomposition. Therefore, our legislation considers mercenary as an aggravating circumstance which indicates an increased public danger of a crime and its perpetrator. While committing a mercenary murder, an offender, in most cases, predetermines all circumstances, details and methods to achieve self-interest goals [3, 39].

Homicide for mercenary motives occur when an offender intends to get some material benefit, release from material expenses, such as debt payment, the payment of alimony, etc.

According to the verdicts of the Appeal Court Criminal Trial Chamber of July 27, 2006, G. Lomtadze and K. Nadibaidze were found guilty for purchasing, keeping and carrying firearms illegally. They also committed premeditated murder in aggravating circumstances, in groups, what was expressed in the following: G. Lomtadze sold his apartment a year ago and temporarily lived with his friends – in Vazisubani settlement, III district. He was in close friendly relations with the people living in the same settlement: K. Nadibaidze, M. Gogoshvili and D. Kasoev. G. Lomtadze and D. Kasoev often bought and used drugs. Due to this fact, they often came into conflict with each other. Later, their relationship extremely strained. In December of 2003, M. Gogoshvili lent 1500 U.S. dollars to K. Nadibaidze and G. Lomtadze but they did not return him this money. On this basis, they had a great conflict. As a result G. Lomtadze and K. Nadibaidze considered M. Gogoshvili and R. Kasoev as enemies. In case of possibility they could even kill them. At the end of December of 2003, M. Gogoshvili insisted K. Nadibaidze and G. Lomtadze to return the money; R. Kasoev supported him. As the debt was not returned, he threatened not to forgive them. On December 31, 2003, in the evening,

G. Lomtadze met R. Kasoev and M. Gogoshvili in Vazisubani settlement. They used obscene language and threatened to kill somebody. G. Lomtadze believed that the threat was directed to him. On this basis they argued. Afterwards, G. Lomtadze came K. Nadibaidze's home and told about the incident. G. Lomtadze and K. Nadibaidze decided to kill R. Kasoev and M. Gogoshvili; the motive was revenge and mercenary. For this, K. Nadibaidze took his illegally purchased and kept automatic firearm of "AKM" system. G. Lomtadze also had "Makarov" pistol which was also illegally kept. Both of them went to find and kill M. Gogoshvili and R. Kasoev.

The same day, at about 19 o'clock, K. Nadibaidze and G. Lomtadze noticed R. Kasoev and M. Gogoshvili in front of the 15<sup>th</sup> building of the 2<sup>nd</sup> quarter of the 3<sup>rd</sup> district of Vazisubani and approached them. G. Lomtadze called D. Kasoev who came to him. At this time, on the basis of quarrel, G. Lomtadze took "Makarov" system firearm and, with the motive of revenge and self-interest, shot towards R. Kasoev who immediately fell down. Afterwards, G. Lomtadze shot again. The bullet hit R. Karasov in the area of head and died instantly. At the same time, K. Nadibaidze approached M. Gogoshvili and, with the motive of revenge and self-interest, shot to his direction several times. K. Nadibaidze inflicted multiple dangerous wounds on various areas of M. Gogoshvili's body who fell down at once. G. Lomtadze came close to fatally wounded M. Gogoshvili and shot in the head with "Makarov" pistol what caused the death of the victim. G. Lomtadze and K. Nadibaidze disappeared.

For committing the crime G. Lomtadze and K. Nadibaidze were found guilty under the subparagraphs "A" and "I" of the Article 109, I and II parts of the Article 236 of the Criminal Code acting until May 31, 2006, paragraph "E" of II part of the Article 109 of the current Criminal Code. They were sentenced: G. Lomtadze - imprisonment for 19 years, and K. Nadibaidze - 18 years. Their penalty started from 23<sup>rd</sup> of January, 2004.

The court did not consider the murder as mercenary when A killed B who entered the apple orchard for picking apples. Self-interest motive for killing a person means an individual's aspirations to illegally acquire property or any other values owned by a victim or any other person who wanted to make tangible benefit from the crime. In this case, A neither got any material profit nor could receive it. Therefore, mercenary crime did not occur.

In order to qualify the act as a mercenary crime, it does not matter if an offender takes the benefit in his/her favor or for another one.

No matter, an offender gets the benefit at the time of mercenary crime, or after a long time. The main point is that murder could be committed for the purpose of self-interest. If the murder was committed not for the purpose of self-interest, but for any other motive and the murderer decided to rob the victim after the murder, we deal not with mercenary crime, but with unity of two crimes.

In order to consider the homicide for mercenary motive complete, it is not necessary for an offender to achieve his/her aim - to obtain property or economic benefit. For example, someone killed a person for inheritance, but actually the inheritance was not received. This is not the attempt of a mercenary murder, but a completed mercenary murder. In such cases as well as in cases of all deliberate murders, subjective composition of the action predominates over the objective composition. Thus, the purpose applies to such kinds of circumstances that are not included in the objective composition of Article's disposition.

It is interesting how the problem of homicide committed during a brigandage is solved. In such a case, a murder consists of two different kinds of crimes and must be qualified by unity of crimes [1,49].

Therefore, mercenary murder and brigandage should be qualified as a unity of crimes, when the aim of a murder is to take into possession the property of others by attacking a victim.

Mercenary murder and brigandage should be separated according to the following features:

1) Brigandage always implies attack, while mercenary murder can be committed differently. But this does not mean that homicide cannot be accomplished by attack. Consequently, it becomes impossible to separate these two crimes only by the mentioned criterion;

2) While attacking, the method of transferring property is important. In most cases, the property is transferred at the time of attack. It must be related to the place and time of the attack. And during the mercenary murder, an offender gets material profit later, has only causal relation with a victim's;

3) The intention of murder is indirect, but in the case of mercenary murder, murder is a necessary precondition for material profit and stands apart from the time and place of the crime;

4) while differentiating mercenary murder and brigandage, the main thing is to determine the aim and legal good. Brigandage encroaches two types of legal good: property and human life or his /her health. It is characterizing for mercenary murder that the desire to acquire material benefit or release from material expenses should precede a murder and be its motive.

The term of "contract killing" is innovation. It did not exist in the old codes. The regulation is generally recognized that contract killing is a variety of homicide and in many cases self-interest motive is clearly expressed. Rarely, contract killing cannot be associated with homicide. A criminal can commit a murder by the command of a respectable and influential person. A criminal authority can also order a member of an organized group to kill an unfavorable person [1,50].

On April 14, 2010, Tbilisi City Court Criminal Panel adjudged the members of criminal gang for the organized crime: Inga Ts.; Zviad S.; Elene T.; Zurab S. and Giorgi R.

As it was found out, the members of the criminal gang killed Inga's husband by her order.

According to the case materials, Inga Ts. contacted her tenant Zviad S. and her servant Elene T. and asked them for help to kill her husband - Gia Ts. As the motive she named the fact that her husband often drank and systematically abused her. According to Inga's suggestion, such behavior endangered their children's lives. Inga promised 5 000 USD for performing her order.

Inga Ts., Zviad S. and Elene T. started realizing the plan and selected the killer: the acquaintance of Zviad S. - Zurab S. who was provided with the detailed information about Gia Ts.

According to the preliminary information, Zurab S. ambushed Gia Ts. near his house, Tskhemi Street. He chose a suitable moment, quickly approached Gia Ts. and shot him. The victim died from fatal wounds. Zurab S. disappeared from the place. The next day Inga Ts. gave the promised money to Elene T.

According to the investigation materials, Zurab S. committed the second crime after the contract killing. On June 27, 2010, Zurab S. decided to attack someone, named R. in Zestaphoni by illegally acquired "Kalashnikov" weapon. Based on the operative information, as a result of the measures implemented by the employees of Imereti Regional Police, Zurab S. was arrested near the village Dzirula. After the search, the police removed a large quantity of drugs "Heroin", and during the search of the car - automatic rifles, and 26 cartridges, as well as the metal clips with 30 cartridges, rubber gloves, adhesive tape, woven black mask and a black bag.

Inga Ts., Zviad S. and Elene T. were charged with contract killing organized by the group in aggravated circumstances.

Zurab S. was accused of the premeditated contract killing in aggravating circumstances, ordered group murder – the crime under the paragraph "E" of the second part of the Article 194 and the paragraph "C" of the third part of the same Article of the Criminal Code of

Georgia; illegal purchase, possession, carrying and manufacturing of firearms (two episodes) - the crime under I, II and III parts of the Article 236 of the Criminal Code of Georgia; also, preparing brigandage, i.e. preparing the attack for acquiring movable property of other people by unlawful intrusion into the apartment - the crime qualified by the paragraph "B" of the third part of the Articles 18, 179 of the Criminal Code of Georgia; illegal purchase and keeping of the large amount of drugs - the crime qualified by the paragraph "A" of II part of the Article 260 of the Criminal Code of Georgia.

George R. was accused of non-disclosure of a particularly serious crime - the crime under the Article 376 of the Criminal Code of Georgia, also illegal purchase and keeping of firearms - the crime under I part of the Article 236 of the Criminal Code of Georgia.

After the preliminary investigation, the case was handed over to the Criminal Chamber of the Tbilisi City Court.

At the trial, the defendant Zviad S. fully found guilty himself and disclosed other members of the criminal gang in committing the crime. Besides Zviad's confession, the accusation against the defendants was confirmed by testimonies of the witnesses, search and seizure protocols, scene examination, forensic ballistic reports and other testimonies.

Tbilisi City Court sentenced Inga Ts. to 20 years and Elene T. - 16 years and 6 months imprisonment.

The court took into consideration the fact that Zviad S.'s confession and the fact that he collaborated with the investigation. Due to this, prosecution bodies and offenders approved the plea bargaining. On this basis, instead of imprisonment for 7 years, the Court sentenced him to conditional discharge with 8 year trial period.

The trial investigation could not confirm Giorgi R.'s offense under the Article 376 of the Criminal Code of Georgia and therefore, he was acquitted of this sentence. However, he was found guilty under I part of the Article 236 of the Criminal Code of Georgia and was sentenced to 2 years and 6 months imprisonment.

As for the murder committer Zurab S., Tbilisi City Court sentenced him to life imprisonment.

There are cases in juridical practice, when an instigator gives the order to kill an enemy and pays some money for it. This is the combination of mercenary crime and contract killing under the paragraph "C" of III part of the Article 109 of the Criminal Code of Georgia. The instigator is not responsible for participation in the murder [4,34].

In this case the killer will be punished under the paragraph "C" of III part of the Article 109 (mercenary), while the instigator of the murder will be punished under the same paragraph for participating in the contract killing. Through the killer acts for self-interest, at the same time, he/she performs the order.

If a murderer committed the contract killing after receiving the appropriate compensation, the action must be qualified by the paragraph "C" of III part of the Article 109 of the Criminal Code of Georgia, but order and self-interest should be indicated in the accusation. In this case, the crime qualification is not changed, but the court may take into account double aggravating circumstances while sentencing him.

As for an organizer of the murder, if he/she ordered killing without material compensation, his/her action will be qualified as the organizer of contract killing or instigator of the murder.

If this order was performed by appropriate compensation, qualification will not change. The action will be qualified under the appropriate part of the Article 25 and the paragraph "C" of III part of the Article 109 of the Criminal Code of Georgia. But it will be necessary to indicate in the accusation about organizing mercenary murder and contract killing [2,3].

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# LEGAL RIGHTS OF CHILDREN BORN IN UNREGISTERED MARRIAGE - BRIEF OVERVIEW

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## Abstract

The main source for the family law is the constitution of Georgia. This is the supreme law of the country which acknowledges and identifies main authorities and freedom of a citizen; it also refers to the fundamental statuses of the family – marriage relationship. Many foreign observers discuss such issues in relation to the accompanying social-economic problems that should not be left without attention. Among them the following ones should be outlined – decrease in marriage rates, cohabitation of couples in unregistered marriage, increasing birth rate of children born from unmarried couple, increase of unwed mothers, etc. Studying the rights of children born as a result of unregistered relationship provokes the greatest interest, because such children and their parents have been constantly expecting strict verdict from social communities for centuries. Statistic researches help us express our opinion that the children born as a result of unregistered marriage are mostly in need not only of material, but also of moral support what requires more attention from the side of the government as they are our citizens and the future of our country. Our purpose is to study these issues thoroughly, which have been painfully reflected on the future of children born from unmarried couples as well as on legal status of unwed parents.

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**Keywords:** Unregistered marriage, unmarried couple, extramarital relationship, law, children

## Introduction:

Marriage is a free-will union set between a woman and a man and is based on mutual love relationship which aims at creating a family. Society always becomes stronger by the family union. In order to bring up a child the best place for its formation is a family.

For the last few years, alternatives have appeared to family life, among which is a civil partnership which is a cohabitation of a couple in an unregistered marriage. As per the Georgian statistics, for the last 15 years the facts of delivering children from unregistered marriage have increased and thus, unregistered marriages have become more frequent. So, the purpose of our research is to study and discuss the problem mentioned above.

As commonly known, family legislation within the civil law regulates the rights of children born in registered marriages which they are conferred with upon their birth; however, when the case refers to the defense of legal rights for children born under unregistered marriage, these issues should be profoundly studied because the problems are discussed only in few paragraphs of the Civil Code of Georgia.

Although the “European Convention on legal status of children born under unregistered marriage” refers to the origin of a child born in unregistered marriage in Georgia, no one has studied the problems related to such children, nor has anyone expressed any special interest towards them. Therefore, the situation and conditions these children are in, is very painful and important for each of us.

In the places where marriage is of high importance, single mothers feel themselves humiliated and rejected; they mostly consider the responsibilities towards their children impossible to implement.

Mother shall be considered as unwed if a child is born as a result of unregistered marriage and father does not recognize a child as his own. The dynamics of children birth under unregistered marriage in Georgia is quite significant. According to the data obtained from the national service agency of statistic department, the average number of infants taken away only by mothers from the maternity house composes approximately 3 000 annually. Experts think that this figure is alarming.

During the conversation with one of the single mothers in the national shelter network for protecting women from violence, we have identified the story told by her with those related by other ladies that she was rejected by everybody and that the family turned away from her and finally she found herself in the street.

Unfortunately, due to the local traditions, unwed mothers who deliver their children without official marriage are rejected by their family members and closest people right at the moment, when they need support most of all. Aggression mostly arises from the side of men. Father, brothers and close relatives turn away from a desperate woman and even threaten her. There are cases, when she is thrown away from her home and even physically punished.

The number of unwed mothers has removed records all over the world. As per official statistics, the quantity of unwed parents in the United States of America has been “rapidly increasing”. Today, this number has reached 13.6 million. Other countries are not in better situation. Registered marriages break every day, children are born without marriage (the so called “illegitimate children”) and millions of parents and children become unhappy.

As stated in Constitution “The government supports well being of a family. The rights of mothers and children are acknowledged and protected by the law.” However, there are lots of cases when an unwed mother is unable to protect her own rights, since stating the origin of such child leads to multiple problems for the mother and the child in future.

The European court has determined the following – for normal development of natural family relationship between parents not being under the registered marriage, it is required to keep their children in the similar legal and social environment as those born under the registered marriage.

We consider that the government should take a good care of unwed parents and their future and provide them not only with social and economic assistance, but with moral support as well, since this kind of help is one of the most important conditions for the existing problem.

There are no illegitimate children in the world. Both parents are necessary for their full harmony and development; every baby has a right to have both parents. Mother should not leave her child illegally. Parents have equal rights. In certain cases, men also have complaints related to affiliation.

Children brought up without care of fathers are facing physical and emotional danger. In the court practice there are a lot of examples regarding the facts of affiliation with the children born in unregistered marriage.

The great number of such examples led to the pressing point of protecting children’s rights left by their fathers and in 2011, the Parliament of Georgia initiated an important amendment into the Civil Code regarding affiliation. This question is extremely urgent for society, as this topic has always been banned and untouched for the Georgian mentality.

According to the amendments introduced into the law, if father does not recognize a child, mother may sue him before court and require DNA genetic analysis at the court during the trial from the expected father. If the respondent refuses to perform analysis, the “affiliation” process shall be automatically approved. As the affiliation is confirmed, father shall be obliged with due responsibilities, for example payment of alimony – this shall compose about 20-25% of the total income; if parents cannot achieve agreement independently, the amount shall be determined by the court individually. However, there are many cases when a father deliberately avoids payment of alimony, hides away incomes and



simply avoids responsibilities. In compliance with the previous legislation (during the Soviet period) such actions were persecuted by the criminal law. This was not exaggerated at all as a parent, who deliberately avoids payment of alimony, should be strictly punished and his responsibility should be duly discussed. These changes will evidently relieve the eternal problem of unwed motherhood and support its facilitation. However, this shall not always break expected preventions, because a woman may carry on with a partner and act on purpose later in order to receive material support from the father of the child. Such precedents cause a more profound speculation. That is why it will be necessary to create law protection mechanism contrary to such incidents and introduce it into the legal practice of the country. Children, who are born under unregistered marriage and are refused by parents in upbringing, most frequently become the victims of street life.

During the last period, the Ministry of Internal Affairs applied to the Parliament of Georgia to set forth more strict requirements towards parents who do not implement their responsibilities in upbringing their underage children.

As we have found out, children's rights are not duly protected in Georgia as it is in other European countries. The most vivid example of this is the fact that so many homeless children are met everywhere. They cannot develop physically or spiritually. The cases of violation of children's rights frequently occur, which takes place even within the family; this is exposed in physical insult, humiliation, neglecting opinion, etc. This is why such children in most cases become aggressive towards themselves and to others. Teenagers, living in such conditions are those who are doomed to become victims of imprisonment.

The most primary problem of brutal treatment to homeless children, sometimes coming even from the side of parents, is the financial side. This problem is truly alarming, what means that if these circumstances preserve, we shall lose our future generation that might be the best future of our country.

The government should pay more attention to this topic. It would be preferable if "human charity houses" were established for such children where they would be duly attended and taken care of by teachers; this would also be the place for parents to correct their own mistakes and seriously think of taking children back. These are the pressing issues and in this respect the government would be required to implement some reforms in order to help homeless children.

### **Conclusion:**

Finally, we consider it reasonable to define the guideline terms regarding the problems mentioned above. These explanations shall be of great educative and practical importance. Finding appropriate solution to these issues shall support the increased sense of responsibility among the citizens while making decisions regarding the children born from unregistered marriages; so will be the efforts made from the side of the government authorities that will implement the most important and primary task – protecting the interests and rights of children born from unregistered marriage, creating and providing normal living and education conditions for them.

We also think that respective amendments should be introduced into the Civil Code of Georgia; this would refer to developing a special standard act which shall specifically discuss legal status of children born from unregistered marriage for harmonization of legal, social and moral aspects of their lives.

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# THE TRANSNATIONAL FAMILY, CONFLICT OF LAWS BETWEEN ISLAMIC AND EUROPEAN SYSTEM

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## Abstract:

The goal that animates the present work is to analyze, on the basis of the rules of private international law, the question of the right bed where one of the parties, or both, are devoted to Islam. Such devotion tends to imply, observant, a perfect coincidence between the legal sphere and the religious sphere. Which is why the phenomenon of migration, by Muslims as it poses many problems with respect to the applicable law. The focus, in the remainder of this paper, it invests the Islamic family law and, specifically, the types of family ties outside our legislation involving conflicts of civilization. The intent is to understand how posing as the Italian domestic law when, following the provisions of private international law, it's "in touch" with the rules and practices of the Islamic family law that may conflicts with the fundamental principles of the law of the forum whose interest is in the exception of public order. The Islamic system is in fact incompatible with fundamental principles of our legal system (and not just legal): first the secular state and religious pluralism.

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**Keywords:** Poligamy, immigration, shari'a

## The transnational family : relationships between systems in conflict with the law

The evolution of the migratory phenomenon has led, in recent years, to a profound social change in our country from a country of emigration has become a land of immigration. This leads to issues emerging from the comparison with different geographical, religious, and socio-cultural norms often very different.

Migration outset involving workers from the perspective of animated stop on our territory for a few seasons or a few years. Today the situation is radically changed and the migrant, with the advent of transnational perspective, plays an active and dynamic role in the host society.

The process of transnationalism involves entire families who choose the country of immigration to stay permanently or individuals who, over time, constitute a family away from the homeland. The choice of this theme relates to the fact that the family is the foundation of every society and, consequently, the legal issues that relate to assume paramount importance. In the most frequent cases, family migration is a process implemented in phases one member from the family chooses to immigrate to other country, during which time the family relationships are maintained at a distance, and finally comes the time of family reunification . In any case «migration implies processes of fragmentation and grouping of the family unit that usually cause substantial structural changes in the functioning of the family»<sup>134</sup>.

This consideration requires special consideration in view of the fact that can affect migrants who arrive in our country with families already established, foreigners who get married in Italy (or in other countries of the European Union) between them and foreigners who join Italian citizens European or giving, so life to "mixed marriages".

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<sup>134</sup> TORRALBA O., in LAGOMARSINO F., *Famiglia e migrazione: un rapporto complesso*, Milano, 2006, p. 185; GOZZOLI C., REGALIA C., *Famiglie e migrazioni*, Bologna, 2005, p.30; MANCINI L., *Immigrazione musulmana e cultura giuridica*, Milano, 2008, p. 55.

Below we examine some of the legal issues that the Islamic presence in Italy, but more generally in Europe arises. Specifically, when immigration is an Islamic one is confronted with a familiar pattern which has a fundamentally different structure than the prevailing conception of the family in the West. The model of Islamic family, classically understood, raises many problems of coexistence, as well as normative, with a reality like the Italian one.

The Italian private international law has among the various objectives to level the differences between the various legal systems allowing, where possible, to live together. The increase in the free movement of persons and the growth of households "International" led to wonder whether the application of the rules of private international law lead to his legitimate status and family relationships recognized in third countries.

The regulatory environment in which these conflicts are detected more prominently is that of family law by virtue of social settings and as a result regulations, with profound differences<sup>135</sup>.

This consideration requires special consideration in view of the fact that can affect migrants who arrive in our country with families already established, foreigners who get married in Italy (or in other countries of the European Union) between them and foreigners who join Italian citizens European or giving, so life to "mixed marriages".

Compared to the transnational family is more important than ever groped achieved the integration between legal methods of coordination between jurisdictions. The difficulty is exacerbated when the family has transnational forms of connection with tradition of shari'a countries from which conflicts can arise from policies where it is legal civilization animated by principles contrary to those of the Italian own.

The migrantes from the states of North Africa and the Middle East regions are the bearers of culture and religion that have profound differences with the western reality. The problem is not only "formal" but it is much more complex when you consider "the idea of the discomfort that some Islamic institutions raise social consciousness in Western Europe, and the difficulty of integration of foreigners originating in Islamic states"<sup>136</sup>.

The issue of conflicts of civilization is extremely topical for the phenomenon of migration in general and for continuous streams of muslim immigrants in particular. The problem involves not only the legal sphere, but also the cultural identity that must be balanced with immigration policies aimed at the integration of migrants in host societies<sup>137</sup>.

<sup>135</sup> BARATTA R. (edited by), *Diritto internazionale privato. Collana dizionari del diritto privato*, Milano, 2010, p. 280 ss.

<sup>136</sup> CAMPIGLIO C., *La famiglia islamica in Italia*, in BARIATTI S., DANОВI A.G. (a cura di), *La famiglia senza frontiere*, Padova, 2008, p. 11; PARISI M., *L'Islam e i paesi europei: problemi giuridici e di legalità costituzionale*, Salerno, 2002, p. 19 ss.; OBERTO G., *Matrimoni misti e unioni paramatrimoniali: ordine pubblico e principi sovranazionali*, visibile su [www.osservatoriofamiglia.it](http://www.osservatoriofamiglia.it); CARPINETO L., *La tutela della famiglia nell'ambito della CEDU. Il caso di "Maria"*, in CARBONE S. M., QUEIROLO I. (edited by), *Diritto di famiglia e Unione europea*, Torino, 2008; CAMASSA AUREA A., *L'immigrazione proveniente dai paesi islamici. Conflitti ipotizzabili e soluzioni possibili*, in *Arch. giur.*, 1996, p. 31 ss.; CESARALE V., *La codificazione del diritto di famiglia nei paesi arabi. Alcuni aspetti della condizione delle donne nell'Islam alla luce dei diritti umani internazionali*, in *Donne e Islam*, Roma, 1999; COLAIANNI N., *Poligamia e principi del diritto europeo*, in *Studi in onore di RAVÁ A.*, I, Torino, 2003, p. 227 ss.; GALOPPINI A., *Problemi familiari tra diritto italiano e diritto musulmano*, in *Riv. crit. dir. priv.*, 2003, p. 167 ss. About conflict of civilization GIACOBBE G., *Il modello costituzionale della famiglia nell'ordinamento italiano*, in *Riv. dir. civ.*, 2006, I, p. 481; LILLO P., *Famiglie immigrate e diritti fondamentali dell'uomo*, in *Arch. giur.*, 1995, p. 91 ss.; PILLITU A.P., *Ripudio marocchino e legge italiana sul divorzio*, in *Riv. dir. int. priv. proc.*, 1997, p. 92 ss.; MAURY V., *Règles générales des conflits de lois*, in *RCADI*, 1936; VIVIANI A., *Coordinamento fra valori fondamentali internazionali e statali: la tutela dei diritti umani e la clausola di ordine pubblico*, *Riv. dir. int. priv. proc.*, 1999, p. 847 ss.; CALVARESI F., *Poligamia e comunità immigrate in Europa. La questione del riconoscimento giuridico della diversità*, Torino, 2008.

<sup>137</sup> MEZGHANI A., *Le juge francais et les institutions du droit musulman*, in *Journal du droit International*, 2003, p. 722 ss. MEZGAHNI sostiene che: «Le Droit est alors perçu comme l'un des éléments constitutifs de l'identité. Ce par lui que s'affirme aussi la spécificité. En effet, l'expansion du modèle juridique occidental n'est

From the system of international law is not obtainable a positive definition of "conflict of civilizations", which is related to the difficulty of being limited to a concept according to criteria and space<sup>138</sup>. Conflicts of civilization «does not relate to the diversity of the connecting factors used in the two systems, but to the radical differences of the fundamental principles which inspired one system over the other, which of course leads to a diversity of public intervention peculiar»<sup>139</sup>. The conflict of civilization is then when the application of the limit of public order leads to the exclusion of some sectors of the foreign law of States with different legal traditions to an obvious difference in the ordering principles on which it stands, this is the case of relationship between the legal orders of the Islamic tradition and Western style.

Despite the Private International Law aspires to international uniformity of solutions, it is possible that the conflict of laws is not surmountable and, in some cases, lead to a conflict of civilization. The distinction between the two forms of conflict is marked by the role of public - that is invoked to protect the basic values of the legal system of the host - which operates as an exception in conflict with the law and is, on the contrary, recalled systematic manner in the conflicts of civilization<sup>140</sup>.

The conflict of civilization connotes the topic of this discussion given the difficulties, more or less evident, in Western countries to recognize institutions of family law tradition of shari'a. Just think of the repudiation or polygamous unions in order to understand how, in addition to being contrary to the fundamental principles on which our legal system is founded, produce reflections derived legal situations such as family reunification, the dissolution of unions and profiles successors<sup>141</sup>.

The legal Islamic create conflicts classified on different levels: at the national level with the Italian Constitution, at the international level with the Universal Declaration of Human Rights of 1948<sup>142</sup>, with the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR) of 4 November 1950 and other international conventions ratified by Italy.

A rule, in particular, against polygamous unions also spoke at the Committee for Human Rights (Human Rights Committee) that the UN, in General Comment 28 of 29 March 2000, affirms the absolute incompatibility between human rights and polygamy. Similarly, the Parliamentary Assembly of the Council of Europe, in its resolution no. 1292 of 2002 established that «repudiation and polygamy violated the principles of human dignity. Polygamous marriages can not, thus, be Recognised by Council of Europe member states»<sup>143</sup>.

*pas étrangère à cette centralité du Droit. Il a donc fallu résister à l'acculturation. Bien qu'elle soit antérieure au phénomène colonial, qui n'a fait que l'accélérer, l'influence étrangère est vécue comme une agression, la marque indélébile de la défaite. Concomitant, il a fallu s'accrocher au patri moine et à l'héritage. L'identité s'est alors construite autour d'un droit figé, puisque hérité, légué par les ancêtres».*

<sup>138</sup> CARELLA G., *Diritti umani, conflitti di legge e conflitti di civilizzazione*, Bari, 2011.

<sup>139</sup> CARELLA G., PIZZOLANTE G., *Il richiamo o rinvio al diritto straniero*, in PREITE F., GAZZANTI PUGLIESE DI CROTONE A. (a cura di), in *Atti notarili. Diritto comunitario e internazionale*, Torino, 2011, p. 38.

<sup>140</sup> Cfr. CARELLA G., *La famiglia transnazionale fra conflitti di civilizzazione e diritti umani*, in TRIGGIANI E. (a cura di), in *Europa e Mediterraneo. Le regole per la costruzione di una società integrata*. Atti del convegno tenuto a Bari il 18-19 giugno 2009, Napoli, 2010, p. 429 ss.; NAJM M.C., *Principes directeurs du droit international privé et conflict de civilisations. Relations entre systèmes laïques et systèmes religieux*, Paris, 2005; MERCIER P., *Conflicts de civilisation et droit international privé: polygamie et repudiation*, Genève, 1975.

<sup>141</sup> Cfr. CARELLA G., *La famiglia transnazionale*, op. cit., p. 430.

<sup>142</sup> The Declaration of Human Rights was adopted by the UN General Assembly on 10 December 1948. For the reference to other conventions, among others, the American Convention on Human Rights of 1969, the African Charter on Human and Peoples' Rights of 1981.

<sup>143</sup> Par. 24: «The right to choose one's spouse may be restricted by laws or practices that prevent the marriage of a woman of a particular religion with a man who professes no religion or a different religion. States should provide information on these laws and practices and on the measures taken to abolish the laws and eradicate the

Within Europe, in 2012, was enacted the Resolution of the European Parliament to reaffirm the principle of equality between man and woman which is clearly evaded in institutions of shari'a of polygamous marriage and divorce<sup>144</sup>.

A form of protection of the local culture, however, must be continually balanced with the goal of integration between peoples in order to avoid excessive rigidity of the sort.

Compared to Islamic law the conflict of civilization emerges in a more evident given the coincidence, as noted in the introduction of this paper, between law and religion that makes it even more rigid than the influences of other jurisdictions. It is therefore for the western states groped through theories which we shall later, the resolution of conflicts of civilization directed to the primary objective of integration between cultures<sup>145</sup>.

Of particular interest is the case study of the qualification in the Italian system of international law to an institution typical of the right -derived of shari'a, which polygamous marriages<sup>146</sup>.

The recognition of these forms of union assumes a significance that is not limited to the classification of the bond as such but extends to other issues that would arise such as the sonship, the possible dissolution of a marriage, family reunification and inheritance issues. Considering the issue in light of the international private method based on a selection of the control, it is good to evaluate what effects would result from the recognition of polygamous union in Italy<sup>147</sup>.

Polygamous unions raise questions with respect to the qualification in non-Islamic countries causing an obvious conflict with the principles espoused by our system. Specifically, the lesion is found with the principles of moral and legal equality between spouses, equality between the sexes and the right to family and private life, and these principles are enshrined in the Italian Constitution, the Universal Declaration of Human Rights, the European Convention on Human Rights and other international treaties ratified by Italy.

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*practices which undermine the right of women to marry only when they have given free and full consent. It should also be noted that equality of treatment with regard to the right to marry implies that polygamy is incompatible with this principle. Polygamy violates the dignity of women. It is an inadmissible discrimination against women. Consequently, it should be definitely abolished wherever it continues to exist».*

<sup>144</sup> Resolution of European Parliament adopted on 13 march 2012 on equality between men and women in European Union (2011/2244 (INI)).

<sup>145</sup> PALESTRA B., *Crisi familiare e gestione dei conflitti tra procedure e culture diverse*, in PASCUZZI G. (edited by), *La famiglia senza frontiere, Atti del convegno tenuto presso la Facoltà di Giurisprudenza dell'Università degli Studi di Milano il 1° ottobre 2005*, Trento, 2006, p. 193 ss.

<sup>146</sup> Polygamy is rooted in the Koran (Sura IV, 3). The Koran is not very clear about the number of wives who can marry: according to a traditional reading the limit is four, more modern schools interpret the expression "two or three or four" as indicative of any number greater than one. Regardless of the interpretation, a possible union with a fifth wife is vitiated by lack of absolute nullity since it is one of the essential elements of the marriage contract itself. With the end of the nineteenth century began to consider polygamy a "tare historic" that afflicts the Islamic countries because of intrinsic instability of such marriages which they arise. In North Africa, polygamy is undergoing a slow regression than in the past. This type of union is one of the fundamental traits in which Islamic law manifests a clear legal disparities between spouses. The type of polygamy to which reference is made is for the majority of cases the "diachronic" is a situation in which women are the same for approval to the husband, after many years, more marriages CONTRACT (up to be able to have up to four wives at the same time). ALUFFI BECK-PECCOZ R., *La modernizzazione del diritto di famiglia nei Pesi arabi*, Milano, 1990, p. 51; ID., *Le leggi del diritto di famiglia negli stati arabi del Nord-Africa*, Torino, 1997; CHARFI M., *L'influence de la religion dans le droit international privé des pays musulmans* in RCADI, t 203, 1987, III, p. 329; FADLALLAH I., *La famille légitime en droit international privé*, Paris, 1977; PEARL D., MENSKY W., *Muslim family law*, III ed., London, 1998.

<sup>147</sup> Of this opinion CARELLA G., in *Diritto di famiglia islamico*, cit., p. 87. Cfr. DE NOVA R., *Rilevanza di un matrimonio poligamico straniero*, in *Giur. comp. dir. int. priv.*, IX, 1954, p. 188 ss.; GRASSANO P., *La poligamia ed i suoi riflessi sulla validità del matrimonio contratto tra soggetti appartenenti a sistemi monogamici e poligamici*, in *Stato civ. it.*, 2004, p. 342 ss.

Our case is seized of the matter in an "indirect" in the sense that "hardly our judges will be called upon to rule on polygamy in the main street: the polygamous marriage is in fact expected to be destined to end up in court in cases (...) compared to the solution of which its validity is a mere preliminary issue<sup>148</sup>". In this perspective, even the limit of public order, pursuant to art. 16 of Law 218/1995, can avoid the recognition of the links fate polygamous union produces legal effects concerning the main issue.

Among the issues "accessory" that such an establishment invests figures prominently, family reunification, in the presence of polygamous unions, caused resonances at international level. The Committee for Human Rights Ordinance N.U. stated in General Comment no. 28 of 28 March 2000<sup>149</sup>, § 24, an indisputable impossibility of coexistence between polygamous unions and human rights, has taken the same position in the European Union directive<sup>150</sup> on family reunification, which states that «the right to family reunification should be exercised in proper compliance the values and principles recognized by the Member States, in particular with respect to the rights of women and of children. Such compliance justifies the requests for family reunification of polygamous family can be contrasted to the restrictive measures».

A less rigid approach can be seen as part of the Institut de droit internationalement in the "Resolution on cultural differences and public policy in the private international law of the family"<sup>151</sup>, adopted at the session of 2005 in Krakow, where he called on Member States to limit the use of the public policy condemning excessive closure of the European states, to the institutions of Islamic law. The Institut praised the French doctrine anticipated the recurrent use of the theory inspired attenuated the effect of public order.

The Italian Court of Cassation and the Italian courts called upon to deal with requests for family reunification by polygamous families, showed a fairly linear trend with the exception of specific cases, this attitude is justified by the fact that the judges have, in each case chosen to focus on different aspects. In this regard, we cite a judgment that has become a "leading case" in which the Court of Bologna has been recognized family reunification to a polygamous family<sup>152</sup>. In particular, it was to bring together two sons of the same father with their mothers, first and second wife of the man in question. The court decided for the reunion justifying it with the absence of a crime having been both celebrated their wedding in a country that allows polygamy.

This ruling is an emblematic example of selective application of the method for which it is possible to separate the status of the institution and, therefore, assess the extent of injury to the above-mentioned principles by choosing to preserve some of the effects. The Italian Supreme Court has instead followed a less "favorable" insisting on the opposition to polygamy remembering that «the orientation of the Court's legitimacy, according to which the process of the right to family reunification has a complex nature and is gradually developing involving the evaluation activity of the administrative authority, that of the diplomatic and possible recourse to the ordinary courts, so the scrutiny of the requirements to be performed by virtue of the procedural rule applicable to the outcome of the process, he found, however, further recent own confirmation with reference to the news article 29 Legislative Decree no. N . 286 of 1998, addressed in this judgment<sup>153</sup>».

<sup>148</sup> CAMPIGLIO C., *La famiglia islamica*, op. cit., p. 31.

<sup>149</sup> www.ohchr.org.

<sup>150</sup> Dir. 2003/86/CE of Council adopted on 22 september 2003, in *GUUE*, L 251 3 october 2003.

<sup>151</sup> Resolution on cultural differences and public policy in the private international law of the family, adopted in 2005 in Krakow, in *Riv. dir.int. priv. proc.*, 2005, p. 1224 ss.

<sup>152</sup> Court of Bologna Decree of 13 March 2003, in *Dir imm. citt.*, 2003, p. 172. In this decree states that "the crime of bigamy can be committed only by an Italian citizen in Italy being irrelevant conduct abroad by an alien whose national law recognizes the possibility of acquiring more marriages".

<sup>153</sup> The Supreme Court, Order of 28 February 2013, n. 4984. On www.sentenze-cassazione.com.

The Italian Supreme Court, in this recent ruling, reiterated a closure orientation in regard to a request for recognition of reunification of the child with his mother<sup>154</sup>, whose husband had, however, new and additional contract marriage in the Italian territory. The lower courts have upheld the appeal filed in the second instance by the Foreign Ministry, noting that the law imposes a ban on the reunification of spouses of foreign nationals already residing permanently with another spouse in Italy and believes polygamy contrary to public policy.

Polygamy invests, as well as family reunification, the inheritance rights. It is worth pointing out that our case is rather poor in cases that affect the succession of events polygamous families. The few pronouncements<sup>155</sup>, however, allow you to confirm the split between the Islamic institute contrary to the Italian and the rights deemed worthy of protection. The judgment of 1999 is that which shows most clearly the intent of the Italian Supreme Court: the case concerned a marriage celebrated in Somalia according to Islamic rites, the Supreme Court confirmed the ruling that, when inherited, had considered relevant status of spouse acquired abroad on the principle *locus regit actum*. The judges welcome, therefore, the address of doctrine that " suggests to distinguish the regulation of the relationship in dispute by the recognition of its assumptions for the profile of private international law, the verification is limited to whether the condition of a spouse for purposes of inheritance.

Even in constancy of children born of polygamous unions should call for inheritance rights, the protection provided by art. 30 of the Italian Constitution<sup>156</sup>.

The principle of selection of the control remains, above all, the model that best adheres to the conflicts of laws in question. This *modus operandi* shows how the unquestioned universality of human rights must, within conflicts of civilization, accept "derogations", aimed at safeguarding the higher interests of the parties involved. This approach aims to facilitate the coexistence of sorts through the application of foreign laws and the recognition of judgments or acts issued by authorities of third countries.

### Conclusion:

The conclusion that can be drawn, therefore, is that our regulatory system comes with tools that allow the interpreter to work groped for the harmonization of foreign models with the principles of the Italian. This can be accomplished through a rather complex system that allows the selection and protection of instances worthy of protection, while being left without recognition of those instances contrary to the fundamental principles of the.

As regards the religious profile (particularly important for migrants islamic view of the correlation, in some cases, between law and religion) is desirable sort of "unified pastoral", as was the case in France, making it possible to equalize the differences and the difficulties that characterize the mixed marriages. Although this scenery may contribute to the goal of integration of muslim communities, more and more numerous in the territory of the European Union. For this to happen it is necessary to preserve and protect the characteristics and traits typical of the muslim doctrine that, at the same time, they must find a form of coexistence with Western legal systems.

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<sup>154</sup> For rulings on family reunification, recalled in the decision of the Italian Supreme Court, see. Court of Cassation, the order of 30 February 2011, n. 7218, the Italian Supreme Court, Order of 30 March 2011, n. 7219, the Italian Supreme Court, Order of 6 March 2012, n. 3493. Visible on [www.sentenze-cassazione.com](http://www.sentenze-cassazione.com).

<sup>155</sup> Italian Court of Cassation, judgment of 2 March 1999, n. 1739 of the Civil Code in Arch., 1999, p. 1377, with notes SANTARSIERE V., *Matrimonio islamico e successione del coniuge*, in *Fam. e dir.*, 1999 p. 327. Cfr. CONETTI G., *La successione del musulmano poligamo*, in *Studium iuris*, 1997, p. 247 ss.; PALMERINI E., *Status familiari e mobilità transnazionale*, in D'ANGELO A., AMRAM D. (edited by), *Riv. dir. civ. La famiglia fra diversità nazionali ed iniziative dell'Unione europea*, 2011, p. 65 ss.

<sup>156</sup> FUCILLO A., *Giustizia e religione. Matrimonio, famiglia e minori tra identità religiosa e rilevanza civile*, II, Torino, 2011, p. 158 ss.



In the face of the interventions that should be taken is good to conclude that the issues that the transnational family poses are complex but the interpreter can be found through a study that will pursue the protection of interests worthy of protection, the solutions to solve the many conflicts of law.

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# THE IMPACT OF LABOUR MARKET ON THE HUMAN RESOURCE MANAGEMENT IN GEORGIA

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## Abstract

Labor market and human resource management are urgent issues for social sphere of Georgia. Majority of employees in Georgia consider they can be easily replaced by employers. Reality the current Georgian Labor market faces, respectively a high unemployment level, inefficient career planning, low level of revenues and salaries, no competition among employers to attract and recruit required personnel serve as the prerequisite to the fact that employers do not see HR as the major factor of their success, therefore they do not use contemporary approaches and trends of Human Resource Management. Implementation of modern technologies of HR management stipulates successful operation of separate organizations as well as encourages solutions to complicated social problems existing in the country.

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**Keywords:** Labor market of Georgia, human resource management, unemployment, employment, self-employment, average income, average salary

## Introduction

Social sphere is still the most acute problems out of the challenges Georgia needs to rise against. We can often hear our society stating a rather fair opinion implying human resources and their significance are not valued adequately in Georgia, thus leading to a considerable lag of the conditions for employees at the work place in Georgia compared to all the data of the same conditions in developed countries. When we speak about assigning inadequate importance to HR, first of all we mean employers in organizations functioning in Georgia not using modern approaches on human resource management. There are different views on the reasons causing the above mentioned problems. We assume the basic reason for this is the existing reality of Georgian Labor Market. Therefore, on the basis of the research data and analysis of the Labor Market and Human Resource Management the present article needs to answer the following questions: How do the current labor market conditions influence HR management and why does an employer not consider HR as the major factor of success?

## Short Analysis of the Survey on Labor Market and Employees

The experience of developed countries confirms the solution of social problems on the scales of an organization as well as a country to a certain extent depends on the labor market conjuncture. Based on our research goals we should review Georgian labor market conditions according to three criteria: population employment, unemployment, labor payment; we will also analyze the employee survey results.

According to the data of National Statistics Office of Georgia (Table 1), in 2012 the number of economically active population<sup>157</sup> consisted of 2029.1 thousand people. Among

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<sup>157</sup> **Economically Active** – is a person at the age of 15 or above who works or offers his/her labor for production of the services or products, that fall within the frame of domestic product as determined in the national accounts system of United Nations (UN).

them, 1727.0 thousand was employed and 305.1 thousand was unemployed. In 2005-2007 the level of unemployment in Georgia was decreased whilst in 2008-2009 it increased considerably (over 3%); in 2010-2012 there was a tendency of a certain minor decline. The number of economically active population in Georgia is a rather variable index. That is why the unemployment decline in percentage might not imply the decrease of the number in absolute data. For example, in 2012 the unemployment level reduced by 0.1%, but the number of unemployed went up to 10.0 thousand people.

Table 1

<b>Employment and Unemployment</b>								
<b>Thousand persons</b>								
	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Active population (labour force), thousand persons</b>	2023.9	2021.8	1965.3	1917.8	1991.8	1944.9	1959.3	2029.1
<b>Employed, thousand persons</b>	1744.6	1747.3	1704.3	1601.9	1656.1	1628.1	1664.2	1724.0
<b>Unemployed, thousand persons</b>	279.3	274.5	261.0	315.8	335.6	316.9	295.1	305.1
<b>Unemployment rate, percentage</b>	13.8	13.6	13.3	16.5	16.9	16.3	15.1	15.0

*Source: National Statistic Office of Georgia*

In the period under review (2005-2012) the highest level of unemployment (16.9%) was noticed in 2009 followed by the lowest unemployment index in 2008 presumably owing to the military conflict between Russian Federation and Georgia. Experts opinion claims the number of unemployed people is much more than what official statistics indicates. The low incomes of the majority of population considered to be employed serve to prove this since the employed population is not provided by normal social conditions.

Sorting of the population over 15 years old of age according to their economic status and regions (Table 2) provides us with an interesting picture. In 2012 year, 21.5 % of economically active population was accumulated in the Georgian capital which is obviously a rather big index pointing to the fact that within the country scales economically active population is not redistributed equally. The table displays the highest unemployment index in Tbilisi (127.3 thousand people) approximately 29.1% which is 41.7% out of the existing unemployment data of the year 2012 according to the official statistics. The lowest unemployment index would come on Kakheti region (131.1 thousand people) 6.5% which is 4.3% of the total unemployment. Table 2 analysis conveys the lowest indicator of employment is in Tbilisi (40.3%) and the highest one is in the regions of Kakheti and Imereti.

Table 2

<b>Distribution of population age of 15 and older by economic status and regions. 2012 Thousand persons</b>									
	Kakheti	Tbilisi	Shida Kartli	Kvemo Kartli	Adjara A/R	Samegrelo and Zemo Svaneti	Imereti*	The remaining regions**	Georgia
Active population (labour force), total	199.7	43.7.2	149.9	202.2	207.9	215.8	38.9.6	226.7	2029.1
Employed	186.6	30.9.9	134.0	180.1	173.8	179.5	35.0.6	209.6	1724.0
Hired	44.2	25.1.7	31.1	63.6	60.4	48.4	11.1.5	51.8	662.6
Self-employed	142.4	58.0	102.7	116.2	113.2	126.7	23.7.6	157.1	1054.0
Not-identified worker	0.0	0.1	0.2	0.3	0.1	4.4	1.5	0.7	7.4
Unemployed	13.1	12.7.3	15.9	22.2	34.2	36.3	39.1	17.0	305.1
Population outside labor force	78.4	33.1.7	59.6	108.9	84.7	84.2	17.3.4	84.3	1005.2
<b>Unemployment rate (percentage)</b>	<b>6.5</b>	<b>29.1</b>	<b>10.6</b>	<b>11.0</b>	<b>16.4</b>	<b>16.8</b>	<b>10.0</b>	<b>7.5</b>	<b>15.0</b>
<b>Employment rate (percentage)</b>	<b>67.1</b>	<b>40.3</b>	<b>63.9</b>	<b>57.9</b>	<b>59.4</b>	<b>59.8</b>	<b>62.3</b>	<b>67.4</b>	<b>56.8</b>

Source: National Statistic Office of Georgia.

\*Include Racha-Lechkhumi and Kvemo-Svaneti

\*\* Samtskhe-Javakheti, Guria, Mtskheta-Mtianeti

Indicators given in the tables are derived from Integrated Household Survey.

The category of the population having a status of hired<sup>158</sup> and self-employed<sup>159</sup> is of interest and consideration. In 2012 out of the total employed 1724.0 thousand people, 662.6 thousand were hired by employers (38.4% in total) and 1054.0 thousand are self-employed which is 61.1% of total number of employed people. Additionally, the majority of hired (38.0%) is in Tbilisi and an absolute majority of self-employed (94.5%) is in regions, basically in agriculture and farming.

Analysis of average monthly incomes of the employed (Table 3) points to the inefficient employment in Georgia. Respectively, the data indicates self-employed population (which is 61.1% of the total employed and the majority of which comes from agriculture and farming) earned 18.2 million GEL (Georgian Lari) from farming in the year 2012. This constitutes only 4.6% of the total average monthly income on the country scale based on the data of the year 2012.

<sup>158</sup> **Hired** – is a person at the age of 15 or above who performed certain type of work during the accounting period in order to generate income or other compensation in cash or in kind. Also, a person who has a job but is temporarily released from the job due to leave, sickness, temporary suspension of working process of the employer, temporary suspension of labor activities of the employee or other similar reasons.

<sup>159</sup> **Self-employed** – an owner of personal enterprise during the accounting period, in order to generate profit or family income (cash or in kind) or a person working for free in family enterprise/holding.

Table 3

<b>Distribution of Average Monthly Incomes of the Total Population by Urban and Rural Areas (Million GEL)</b>						
	2006		2009		2012	
	Urban	Rural	Urban	Rural	Urban	Rural
<b>Cash income and transfers</b>	<b>158.9</b>	<b>99.6</b>	<b>276.3</b>	<b>151.0</b>	<b>358.2</b>	<b>239.8</b>
Wages	82.9	25.0	145.0	41.9	187.1	66.6
From self-employment	27.9	12.8	42.1	13.7	50.1	18.2
From selling agricultural production	1.0	31.3	2.1	27.4	2.5	46.7
Property income (leasing, interest on deposit etc.)	1.0	0.5	5.8	0.6	3.8	0.6
Pensions, scholarships, assistances	15.8	16.8	32.5	42.9	42.4	56.2
Remittances from abroad	11.4	3.7	16.9	5.7	18.6	10.8
Money received as gift	19.0	9.4	32.0	18.7	53.6	40.6
<b>Non-cash income</b>	<b>11.6</b>	<b>70.5</b>	<b>13.5</b>	<b>69.8</b>	<b>14.0</b>	<b>79.1</b>
<b>Income, total</b>	<b>170.6</b>	<b>170.1</b>	<b>289.8</b>	<b>220.8</b>	<b>372.2</b>	<b>318.9</b>
<b>Other cash inflows</b>	<b>24.6</b>	<b>22.4</b>	<b>39.5</b>	<b>25.4</b>	<b>64.2</b>	<b>53.4</b>
Property disposal	4.8	2.1	5.8	1.1	13.2	8.4
Borrowing and dissaving	19.7	20.3	33.7	24.3	51.0	45.0
<b>Cash inflows, total</b>	<b>183.5</b>	<b>121.9</b>	<b>315.8</b>	<b>176.4</b>	<b>422.5</b>	<b>293.2</b>
<b>Cash and non-cash inflows, total</b>	<b>195.1</b>	<b>192.4</b>	<b>329.3</b>	<b>246.2</b>	<b>436.4</b>	<b>372.3</b>
According to the data declared by the households	<b>158.9</b>	<b>99.6</b>	<b>276.3</b>	<b>151.0</b>	<b>358.2</b>	<b>239.8</b>
<b>Cash income and transfers</b>	82.9	25.0	145.0	41.9	187.1	66.6

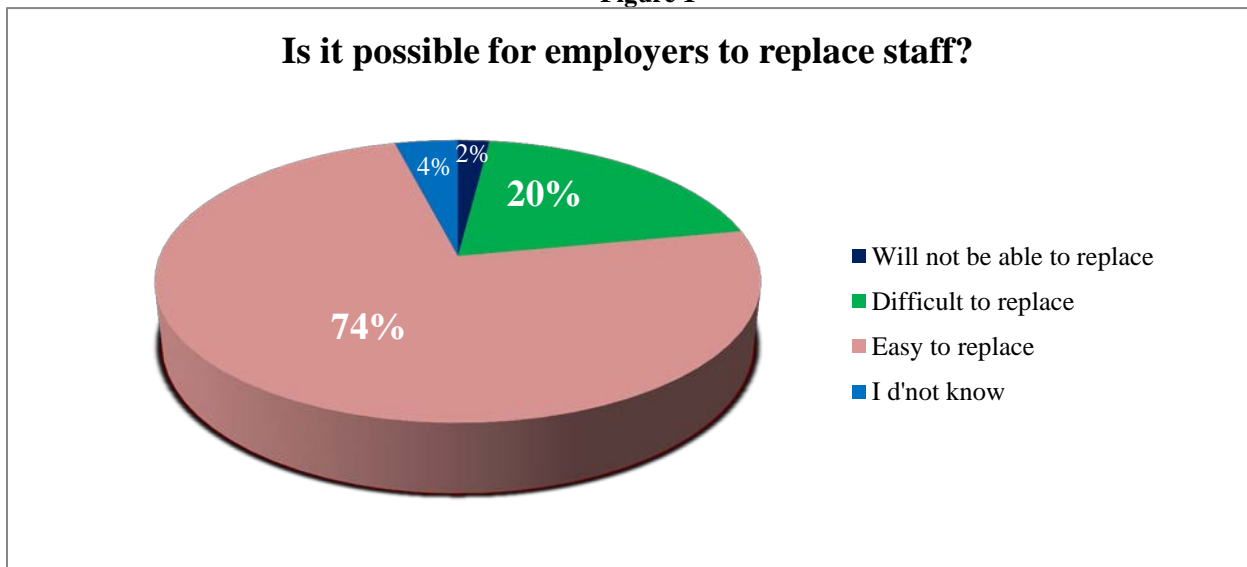
*According to the data declared by the households*

Notwithstanding the dynamics of the raise in salary in recent years an average monthly salary is still low. Compared to the year 2000 an average monthly salary increased 9 times in the year 2011. In the absolute index it showed 636.0 Gel or 385 dollars. What is more, in a number of spheres the most employed population works in an average monthly salary was rather low. For example; in the field of education an average monthly salary in 2011 was 319.6 GEL which is approximately 194 dollars by the data of the period. In agriculture it was 392.6 GEL (240 dollars), etc.

The short statistical analysis of the labor market enables us to realize the reasons for human recourses not to be the major factor of success on the level of an organization in Georgia. If we refer to the scientific and academic literature on human resource management where the practice of efficient HR management is reviewed and analyzed in details we can state that any employer acting based on a long-term success strategy is aware of the possibility to achieve desired results if employees are friendly to the organization and their requirements are met utterly. However, the mentioned approach is not implemented in Georgia and consequently, there is an equal market power on the labor market of Georgia. According to the redundancy of work force on labor market an employer has more market power and less need and urgency to use contemporary approaches of HR management. To be more exact, an employer in Georgia is authorized to easily replace his/her staff with the HR existing on the labor market.

Employees are powerless on the job marker, which can easily be seen from the dominant feeling among them, that employer can easily find a substitute to any employee from labor market, students of universities, or other organizations. Out research on the effects of the job market on the management of the human resources in Georgia yield the same conclusion. The research was based on the specific forms which the research participants filled out. All of them were employed at the time. The goal was to understand their view of how easy or difficult would it be to replace them on their position. The results are shown on the Figure 1.

Figure 1



The majority of the surveyed (74%) think that an employer will be able to easily replace them from different sources of hiring. Only 2% consider an employer will not be able to replace them and 20% assume an employer will be able to replace them but with difficulties.

To clarify the advantageous position of an employer on Georgian labor market compared to an employee, we need to say that the majority of graduates are not able to find a job for a long time. In addition, most employed are not satisfied with their work place and position and are ready to alter the work opportunity; thus increasing the market power of an employer. We can offer the research data in which the survey would focus on the job satisfaction.

Figure 2

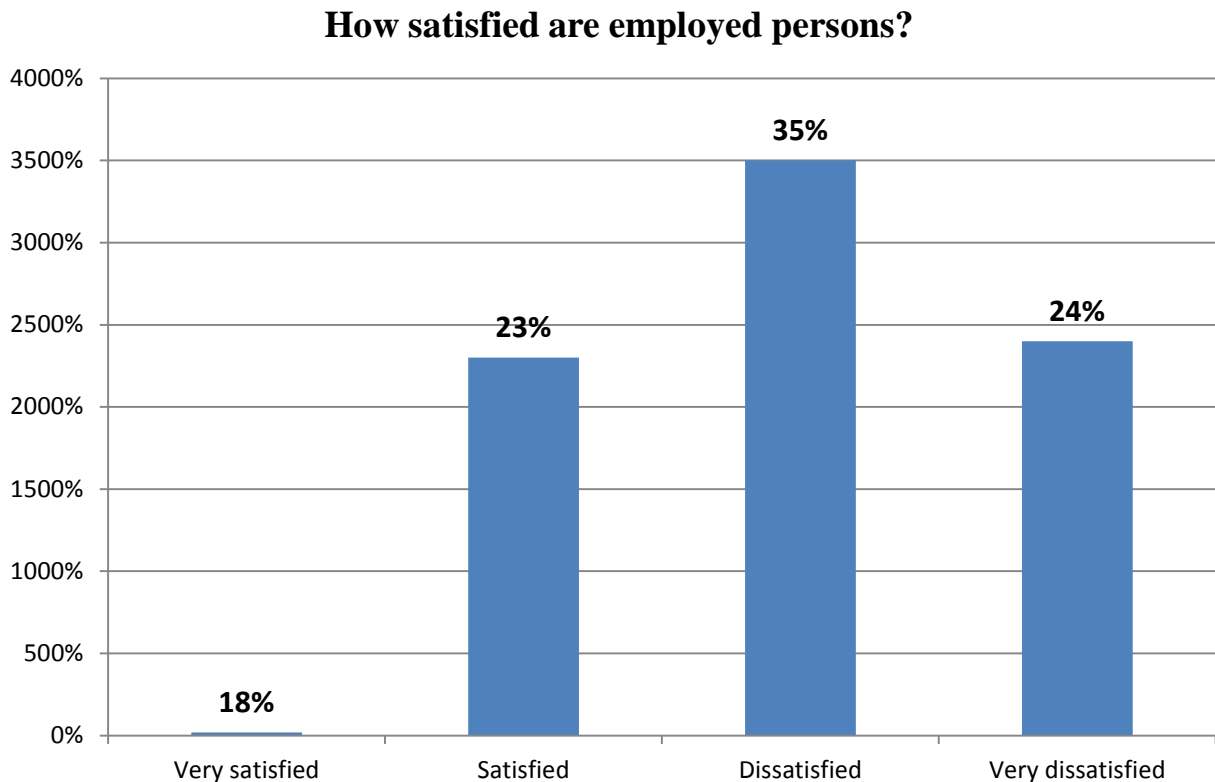


Figure 2 demonstrates that the majority of the surveyed (59%) are not satisfied with their current job and 24% is unhappy. 23% of the surveyed is satisfied with their current position and 18% is happy. Consequently, we should assume that the majority of the surveyed will change their work place for the better and is a potential source to be provided for any employer on the labor market.

The research data also state that the majority of employed do not expect and consider it unreal: to form a decent career system from an employer; to increase expenses on training and development; to inculcate work places adjusted to an individual and other contemporary trends of human resource management in the organizations that function and operate in Georgia.

## Conclusion

From the brief statistical analysis of the Georgian labor market the following conclusion can be made:

➤ Due to the existing situation on the labor market employers do not consider hired employee as a long term investment, thus they do not spend considerable resources on the training and improvement of their human resources;

➤ The unemployment rate makes it easy for the employer to easily replace an employee from the external sources;

➤ The use of the modern human resources management technologies is caused by the high competition among the employees to attract the interested candidates. However, the situation in Georgian job market does not raise the need for such a competition;

➤ The average wage is very low in the country, therefore there is no need for any additional motivation to make a hire;

➤ The absolute majority of the working population is employed in the agricultural sector in Georgia. However, according to the official statistics they are considered to be employed, the income of the self-employed is extremely low and their effective employment remains an important problem;

➤ The position of the prospective employee is also weakened by the fact that university graduates for a long time are unable to find employment and for the most cases never do. This increases the pool in the job market for the employer which on its side does not deem necessary to use modern technologies for the existing human resources;

➤ The job market paradigm plays a vital role in solving the social problems, in particular for increasing the employment thus reducing the unemployment rate. However, to solve the problem, employment has to be effective which can be achieved through the right micro-management of the human resources;

➤ Wrong perception of the society, and not understanding that the labor market environment drives the situation of the employee at the position, causes the bias in the importance of the labor law<sup>160</sup> on employment. The misconception is that strict laws would regulate and drastically improve social security of the employees;

➤ High unemployment rate, ineffective employment, unemployment of the university graduates, non-existent competition among employers for the candidates are the main reasons that organizations in Georgia partly or do not use the modern methods of HR management, without which the long-term business of the organizations in Georgia cannot be successful.

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<sup>160</sup> Kvirkvaia M., Human Resource Management and Labor Relations Regulation in Georgia. European Scientific Journal. 2013. Vol.9; #13.



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# LONG-TERM FINANCIAL SUSTAINABILITY AND INEQUALITY OF PHARMACEUTICAL EXPENDITURE IN THE EUROPEAN UNION, 2011-2060: A COMPARATIVE ANALYSIS

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## Abstract

The European Union has achieved near-universal health coverage (Mean=99.15%; Standard Deviation=1.46%; Variation Coefficient=1%) and equity of access to healthcare services but, in the period 2000-10, such goal has been achieved at a Not Sustainable rate with total health expenditure growth (4.2%, STDDEV=2.4%) exceeding the growth rate of the GDP (1.7%,STDDEV=1.4%) by +2.5 percentage points on average and pharmaceutical expenditure (3.5%, STDDEV=3.0%) exceeding the growth rate of the GDP by +1.8 points. In the period 2011-2060 the GDP is expected to reduce and stabilize its growth rate from an average of 1.7% (STDDEV=1.4%) to an average of 1.6% with lower variation among the countries of the EU (STDDEV=0.5%). There follows that if the growth rate of health and pharmaceutical expenditure of the period 2000-10 is not reduced in the period 2011-60 only 4 nations will achieve economic and financial sustainability: Netherlands, Sweden, Denmark and Italy. Health policymakers in the European Union should account for this long-term expenditure growth pattern and reform in the efficiency and effectiveness of health and pharmaceutical care is necessary if health outcomes are to be improved and at the same time the economic and financial sustainability of the European universal welfare model is to be preserved and inequality avoided.

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**Keywords:** Universal Coverage, Pharmaceutical Expenditure, Total Healthcare Expenditure, Gross Domestic Product, Long-term Economic and Financial Sustainability

## Background

The member states of the European Union guarantee near-universal health coverage (Mean=99.15%; Standard Deviation=1.46%; Variation Coefficient=1%) [43][45] and equity of access to healthcare services and pharmaceutical active principles approved by the European Medicines Agency and national Agencies for reimbursement [6][15]. However in 2013 [44] the enduring effects of the 2008 financial crisis, in terms of recession, growing sovereign debt [1] and Financial consolidation [46], have risen concerns [44] about the long-term [42][44] sustainability [49] of the European welfare model.

The research question of this paper is whether the Per Capita Real Average Annual Growth Rate (PCR-AAGR) of pharmaceutical expenditure in the European Union in the period 2000-2010 (PCR-AAGR=3.5%; STDDEV=3.0%; VC=0.9) will be economically and financially sustainable in the long-term, i.e. in the period 2011-2060, on the basis of the OECD estimate of the growth of the Gross Domestic Product in such period of (PCR-AAGR=1.6%; STDDEV=0.5%; VC=0.3) (Exhibit 1).

In order to assess systematically across the EU the joint economic and financial sustainability of pharmaceutical expenditure in the periods 2000-10 and 2011-60, the present

paper has applied the World Health Organization's conceptual framework outlined by Thomson, S., Foubister T. and Mossialos E. (WHO 2009).

**Exhibit 1: Per Capita Real Average Annual Growth Rate of GDP, Total Health Expenditure and Total Pharmaceutical Expenditure in the European Union (N=21) in the periods 2000-2010 and 2011-2060**

EU 21	GDP 2000-2009	THE 2000-2010	TPE 2000-2010	GDP 2011-2060
Mean	1.7	4.2	3.5	1.6
Standard Deviation	1.4	2.4	3.0	0.5
Variation Coefficient	0.8	0.6	0.9	0.3

Source: Authors' elaborations on OECD Health Data 2011

#### Legenda:

PCR AAGR – Per Capita Real Average Annual Growth Rate

GDP – Per Capita Real Gross Domestic Product;

THE – Per Capita Real Total Healthcare Expenditure

TPE - Per Capita Real Total Pharmaceutical Expenditure

#### Methods

Thomson S., Foubister T., and Mossialos E. (WHO 2009) [53] define economic and Financial sustainability as:

- Economic sustainability specifically refers to growth in public health financing as a proportion of gross domestic product (GDP). Financing on health is sustainable up to the point at which the social cost of health financing exceeds the value produced by that financing. If health financing sufficiently threatens other valued areas of economic activity, health financing may come to be seen as economically unsustainable. In order to exemplify, every dollar spent on health care represents one fewer dollars spent on education, national defense, housing, subsidies. The more we spend on health care, the less we are able to spend elsewhere;
- Financial sustainability of a health system relates specifically to public financing on health care. A health care system may be economically sustainable and yet Financially unsustainable if internal public revenue is not sufficient to meet public financing.

In the present research we will adapt the WHO definition of Financial and economic sustainability in a such a way that pharmaceutical expenditure, as any other expenditure, in order to be sustainable must be first of all financially *and* then economically sustainable. In other words, if a category of expenditure is not financially sustainable, its economic sustainability cannot be assessed since Financial consolidation and pervasive reform make predictions regarding the direction of economic restructuring unreliable.

In conditional terms, if:

- PCR-AAGR is the per capita real annual average growth rate;
- GDP the gross domestic product;
- THE is total healthcare expenditure and;
- TPE is total pharmaceutical expenditure:

then pharmaceutical expenditure of a health system is:

- Financially Sustainable =if  $\{PCR-AAGR TPE \leq PCR-AAGR GDP\}$  and Not Sustainable otherwise;
- Economically Sustainable =if  $\{PCR-AAGR TPE \leq PCR-AAGR GDP\}$  and  $\{PCR-AAGR TPE \leq PCR-AAGR THE\}$  and Financially Sustainable otherwise.

This approach is synthesized in Exhibit 2. The red line represents  $f(x)=1$  along which per capita real average annual growth rate of the GDP (x axis) is equal to the growth rate of total

health and pharmaceutical expenditure (y axis). The reduction in variability in the growth rate of the GDP across the EU in the period 2011-60 can be seen in terms of the clustering of datapoints around the mean. The effects of this variation of the GDP growth rate in terms of the divergence of the regression lines of total health and pharmaceutical expenditure can also be visualized together with the reduction in the values of the coefficients of determination ( $R^2$ ) from 2000-10 to 2011-60 of both health expenditure (from 0.66 to 0.31) and pharmaceutical expenditure (from 0.44 to 0.66).

This paper analyzes the OECD healthcare and pharmaceutical expenditure and reimbursement datasets for the period 2000-2009 and the OECD report on long-term economic growth in the period 2011-2060.

For definitions and comparability we refer in full to the: "OECD, Eurostat, World Health Organization: A system of health accounts – Edition 2011". The OECD defines pharmaceutical expenditure as:

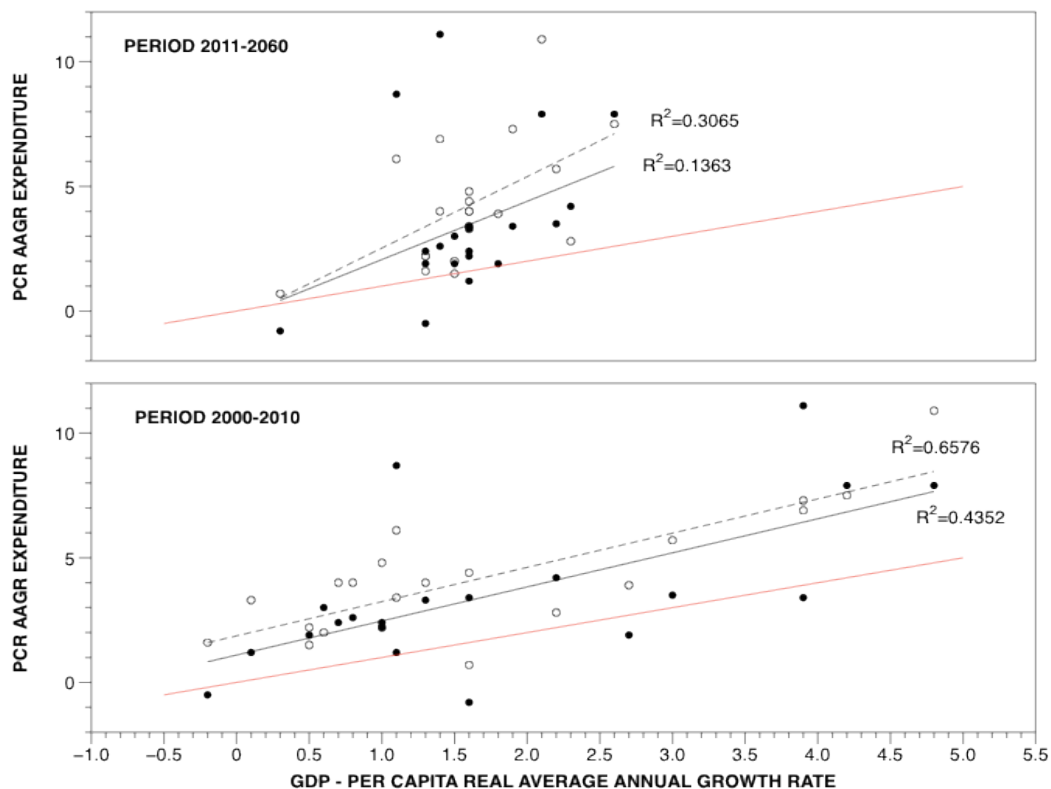
Pharmaceutical expenditure covers spending on prescription medicines and self-medication, often referred to as over-the-counter products. For some countries, other medical non-durables such as syringes, bandages, etc. may be included in the total. It also includes pharmacists' remuneration when the latter is separate from the price of medicines. Pharmaceuticals consumed in hospitals are excluded (on average they account for around 15% of total pharmaceutical spending). Final expenditure on pharmaceuticals includes wholesale and retail margins and value-added tax.

The 21 countries of the European Union analyzed have been selected on unbiased grounds as the only countries for which all information was available and homogeneous in the OECD databases.

Per capita real data have been utilized to account for the demographic dividend and inflation.

All data has been downloaded in .csv formats and analyzed-plotted with R 3.0.1 software.

**Exhibit 2: Per Capita Real Average Annual Growth Rate of the Gross Domestic Product, of Total Healthcare Expenditure and of Total Pharmaceutical Expenditure in 21 member states of the European Union in the period 2000-10 and 2011-60**



Source: Authors' elaborations on OECD Health Data 2011

**Legenda:**

BLACK DOTS - Per capita real Average Annual Growth Rate of Pharmaceutical Expenditure (TPE)

HOLLOW DOTS - Per capita real Average Annual Growth Rate of Total Health Expenditure (THE)

SOLID LINE – Regression Line of TPE

DASHED LINE – Regression Line of THE

RED LINE –  $f(x)=1$ **Notes:**

Countries in decreasing order of AAGR GDP. EU  $N=21$  out of  $N=27$  member states have been analyzed for which the OECD datasets are consistent in the period 2000-2010 and 2011-2060. The original misalignment in the OECD datasets between the time period 2000-2009 of GDP growth and the time period 2000-2010 of Total Healthcare and Pharmaceutical Expenditure has been maintained for consistency with the OECD Health Data 2011 datasets.

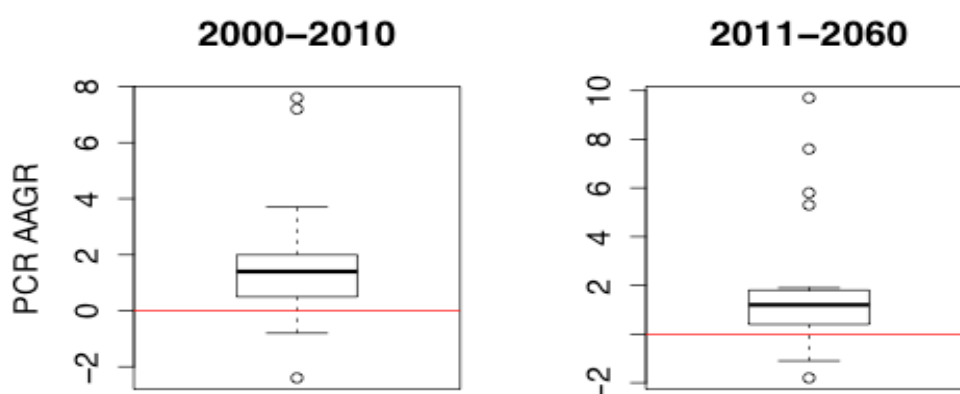
**Findings**

From an economic and financial point of view Exhibits 1 and 2 highlight the fact that, in the post-Euro currency period 2000-2010, in 21 member states of the European Union (EU 21) the per capita real Average Annual Growth Rate (PCR-AAGR) of Total Healthcare Expenditure (PCR-AAGR=4.2%; STDDEV=2.4%; VC=0.6) has been consistently higher than the PCR-AAGR of the national Gross Domestic Product (PCR-AAGR=1.7%; STDDEV=1.4%; VC=0.8), with the sole exception of Luxembourg. One country, Italy, highlights a positive growth of Total Healthcare Expenditure (PCR-AAGR=1.6%) even if the growth of the GDP is negative in the same period (PCR-AAGR=-0.2%).

As far as Pharmaceutical Expenditure is concerned, the situation is only slightly different (PCR-AAGR=3.5%; STDDEV=3.0%; VC=0.9), with only 2 members for whom the growth rate is lower than the growth rate of the GDP - Poland (PCR-AAGR=3.4%) and Slovenia (PCR-AAGR=1.9%) - and 2 for whom it is actually negative: Luxembourg (PCR-AAGR=-0.8%) and Italy (PCR-AAGR=-0.5%).

Exhibit 3 analyzes the difference between the growth rate of pharmaceutical expenditure and GDP (Financial Sustainability) in the two periods 2000-10 and 2011-60. In the long-term the difference in the EU 21 will be less uniformly distributed with a mean of 1.9% (STDDEV=2.8%) against the 1.7% (STDDEV=2.3%) of the period 2000-2009 and, as the OECD points out [32], only in the presence of ambitious policy changes, ambitious Financial consolidation efforts and deep structural reforms.

**Exhibit 3: Financial Sustainability of Pharmaceutical Expenditure in the European Union ( $N=21$ ) in the periods 2000-2010 and 2011-2060**



**Source:** Authors' elaborations on OECD Health Data 2011

**Legenda:**

PCR AAGR – Average Annual Growth Rate

**Notes:**

Software R 3.0.1 – boxplot()

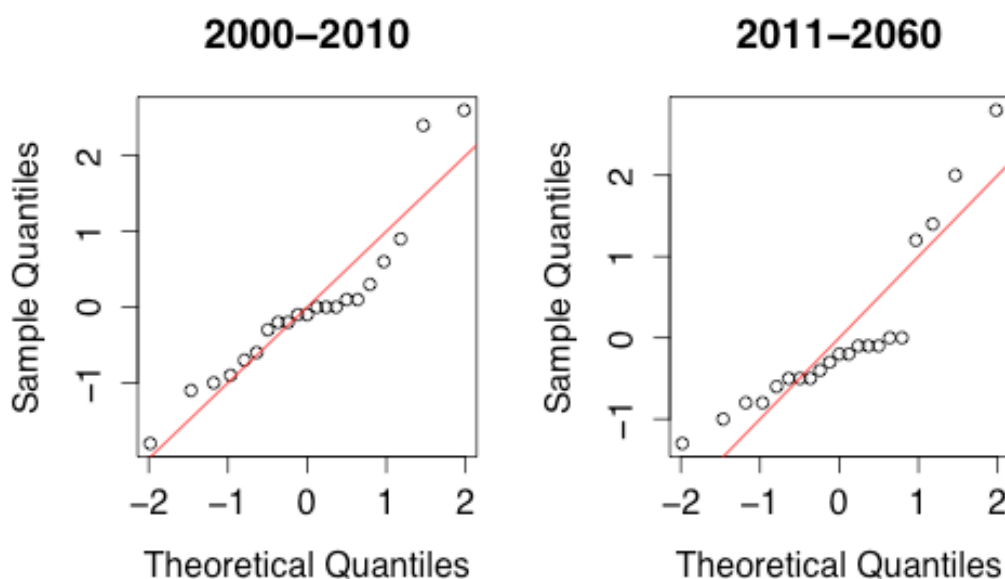
## Conclusions

In the period 2000-10 all the 21 countries of the European Union analyzed have achieved near-universal health coverage (Mean=99.15%; Standard Deviation=1.46%; Variation Coefficient=1%) [43][45] and equity of access to healthcare services [6][15] but such goal has been achieved at a Not Sustainable rate (Exhibit 2), with total health expenditure growth (4.2%) exceeding the growth rate of the GDP (1.7%) by +2.5 percentage points on average and pharmaceutical expenditure (3.5%) exceeding the growth rate of the GDP by +1.8 points. Only 4 countries out of 21 have grown at a sustainable rate: Luxembourg, Slovenia, Italy and Poland.

In the period 2011-2060, in the 21 countries analyzed, the GDP is expected to reduce and stabilize its growth rate from an average of 1.7% (STDDEV=1.4%) to an average of 1.6% (STDDEV=0.5%): -0.1% (STDDEV=1.5%). More specifically, if the growth rate in healthcare and pharmaceutical expenditure of the period 2000-10 is not modified in the period 2011-60, only 4 nations will achieve economic and financial sustainability: Netherlands, Sweden, Denmark and Italy.

Exhibit 4 summarizes all conclusions: form a quasi-normal distribution in the period 2000-10 in the period 2011-60 the reduction in the variation of the real per capita GDP growth rate in the EU will for some countries skew the distribution of the difference between the growth rate of pharmaceutical expenditure and GDP (Financial Sustainability) to the left, making it more financially sustainable but, on the other hand, for some other countries, the reduction in the growth rate of the GDP will render pharmaceutical expenditure less financially sustainable in the long-term and skew their distribution to the right.

**Exhibit 4: Normal Quantile-Quantile Plot (Z standardized variables) of the Financial Sustainability of Pharmaceutical Expenditure in the European Union (N=21) in the period 2000-2010 and 2011-2060**



**Source:** Authors' elaborations on OECD Health Data 2011

### Legenda:

AAGR – Average Annual Growth Rate

### Notes:

Software R 3.0.1 – qqnorm()

We conclude that health policymakers in the European Union should account for this long-term expenditure growth patterns, and reform in the efficiency and effectiveness of health and pharmaceutical care is necessary if health outcomes are to be improved and at the same time the economic and financial sustainability of the European universal welfare model is to be preserved and inequality avoided.

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