

Competitiveness and Economic Growth through Education and Investments: The Case of Moldova

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Abstract

This article explores and emphasizes the importance of education and innovation activity for competitiveness, and qualitative economic growth, using the case study of the Republic of Moldova. Specifically in context of globalization, when developing nations experience pressures of economic and societal imbalances, the importance of basic cornerstones of the economy cannot be overestimated. Starting with education, an economy builds the platform to nurture and hopefully retain talent. Entrepreneurs create new business streams, new products and services, and new areas for investment. Investments, in their turn, can be used as another powerful mechanism to obtain quality in economic growth. Besides necessary investments in infrastructure and healthcare, investments into science, technology and various R&D activities that lead up to the increased share of high-technology in the GDP structure of countries like Moldova are necessary, as well as possible due to high potential of Moldova's skilled population making up for the lack of other resources available to the developed economies. In this context, economic competitiveness and qualitative growth by importing, adapting, implementing and developing new technologies, can be reached by the industrializing economies sooner than expected.

Keywords: globalization, developing countries, education, investment, innovation, technology, competitiveness

JEL Classification: 011, 012, 038

1. Introduction

Economic growth and societal well-being receives increased attention in light of current socio-political and economic affairs. Globalization with its fierce competitive forces puts the components of economic well-being at the forefront of related debate. The aim of this article is to contribute with a view on the relationship between competitiveness and economic growth on the one hand, with education, investment and innovation on the other.

The dilemma of the modern generation is partially in the fact that, whilst overall poverty level is decreasing, global inequality gaps continuously persevere, meaning that the difference between rich and poor is wide. The Nobel Prize winner Professor Joseph Stiglitz often mentions in his works that today's inequality indicators are at dangerous levels, and global instability is tightly related to the escalating levels of inequality

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(Stieglitz, 2012). For instance, Lenzner considers the following example when 0.1% of the total population, which is about 315 thousand out of 315 million people, makes about half of all capital gains on sales of shares or property after 1 year; while capital gain is at 60% of the income attributable to the business from the list of Forbes Top 400 (Lenzner, 2011). This indicated the importance of inequality, and the notion of economic growth, which includes the creation of wealth among less fortunate layers of the society. Indeed, if in the 1990s, the gap in average income of the 20% richest and 20% poorest households was at 30 to 1, in 2000 that same gap was already at 78 to 1 (Birdsall, 2006).

According to the World Bank (2014), over two thirds of the global GNP (gross national product) per capita were generated per high-income economies in 2015, about one third per share of medium-income nations, and only about 0,5% of global income per share of the low-income economies (Lenzner, 2011). This means that while the industrialized, or developed, economies generate proportionately more and more GNP, their low-income counterparts trend negatively. Unequal living standards and economic conditions define reality between the nations, but also within the nations. In part, the problem is caused by globalization, which in itself is a positive influence driving modern societies and economies. As competition becomes more severe, globalization puts pressure of increased asymmetries between economies worldwide, as well as within individual economies and nations. Developed countries, undoubtedly, gain further access to wealth creation, whilst developing once get dragged further into poverty for various socio-economic and political reasons. In this context, developing economies, and Moldova in particular, find it difficult to catch up with the developed ones, and tend to loose rather than gain from most economic transactions in context of globalization in the long-run. Besides the destructive effects to the developing nations, inequality also hinders potential contribution of the latter into the global GNP.

In this light, counteractive measures against inequality constitute the basis of well-being of both the developing and the developed worlds. World's greatest economic and social challenges such as wars and other devastating events arise from inequality. This particular article discusses the position of the Republic of Moldova, addressing the power of education, investments and innovation-creation, competitiveness and qualitative economic growth. In this context, growth with quality, or qualitative economic growth, is growth where healthy building blocks create inner competitiveness of an economy.

2. Moldova As A Case Study

2.1. State of the Economy

Republic of Moldova is an interesting economy for several reasons, as it is a case-study with structurally inbuilt challenges and opportunities. Moldova gained its independence in 1991, however, it is the only post-Soviet nation that did not reach its 1991-level of economic development (GDP per capita) (EGPRSP, 2004). In fact, Moldova has evolved from one of the richest Soviet republics to the poorest country in Europe, with median monthly income of \$250 and GDP (Gross Domestic Product) per capita of around mere \$2000. Notably, the share of Moldova's GDP has been trending negatively since the 1990s, in global and more narrow, European, context. In 2015 Moldova's nominal GDP

per capita was around \$1700 a year rising to a bit over \$2000 in the subsequent year, whereas in 2013, it was at over \$2200 (United Nations, World Bank, 2013, 2014). In 2016, Moldova's GDP was valued at \$6,79 billion and trade openness at 91,9% (Birdsall, 2006, NBSRM, 2016, World Bank Statistics Database). Table 1 below summarizes the downward slope from 1990 to 2015, when Moldova's GDP landed at 0,01% of the global, with GDP per capita about 18 times lower than European Union average. Thus, Moldova balances on the edge of economic survival.

Table 1. The Share of Moldovan GDP in the world economy, in the European economy, in the Eastern European economy, %

Share of Moldovan GDP in the	1990	2015	deviation
Global economy	0,017	0,011	- 0,006
European economy	0,046	0,037	-0,009
Eastern European economy	0,44	0,22	-0, 22

Source: Based on data from Quandl (2016)

Assessing broader business environment, Table 2 below summarizes key indexes that demonstrate Moldova's position in various international rankings. Notably, in 2015, Moldova was ranked at 114th place by Human Development Index that also placed Moldova at 'low-to-medium' level of economic development (UNDP, 2016). In 2008 the same Index put Moldova as 113th, while in 1990 it was 64th, which means that the country experienced considerable drop in the past decades. Also worth mentioning that Moldova entered its post-Soviet era as industrial-agrarian economy (Pischina, 2007, 2007a) whereas today Moldova's industry is in rather poor shape. In other words, Moldova dropped in ranks on key positions, such as competitiveness and economic freedom.

Table 2. Moldova's Business Environment, Key Indexes, 2015, 2016

Key Index Rating	2015	2016
Global Competitiveness Index	82	84
Index of Economic Freedom	111	117
Global Innovation Index	46	44
Logistics Performance Index	93	96
Global Enabling Trade Index	92	79
Doing Business	63	44

Source: UNDP (2016),IMF (2016),Heritage Foundation (2015,2016), WEF (2014,2015), WIPO (2015,2016), World Bank (2015,2016,2017), WB/IBRD (2014).

Negative dynamics in the nominal GDP per capita in Moldova is a combination of several factors, such as absolute decrease of labour, capital, technologies, erosion of the structure of the economy and production volume (EGPRSP, 2004). Since 1991 Moldova lost most of its large industrial enterprises, i.e. electronics, machinery/instruments. The relationship between higher education and real economy is rather weak both at the level

of individual firms and at the level of public organizations, thus there is almost nowhere to ‘apply’ the knowledge for students, which makes it difficult for young and talented professionals to stay within national labor force and create enterprises, in particular. Decisions at the state level are also seemingly taken without regard to macroeconomic laws. This, in simple words, describes Moldova’s phenomenon, it sort of climbs the structural ladder downwards, meaning that whatever development the country experiences is without real growth. This article suggests that partially the decay of Moldovan economy can be explained by the erosion of the key building blocks of the economy, such as education system and labor market situation that does not allow to either produce innovation or exploit entrepreneurship, resulting in continuous brain drain from the country, and the low share of profitable activities in Moldova’s economy. Additionally, investment policy in Moldova is rather weak, when it should be targeted at rebuilding key cornerstones of the economy, such as infrastructure and technology-intensive industry.

2.2. The Structure of Moldovan Economy

This article considers the importance of education and investments for qualitative economic growth, at the same time suggesting that the share of innovation in an economy defines its potential to achieve it. Theory and practice suggest that the structure of an economy is one of the key factors of economic growth with development, or inclusive growth. The countries which build in industry and technology in their economic structures are more likely to succeed. This is as true in post-war economic history, as it is today. For instance, in the 1960s and 1970s, the countries with the fastest rates of GDP growth (about 3,5% annually) were those with the largest share of machinery within their industry. Those with larger shares of natural and mineral resources grew by about 2%, finally, agrarian, or agricultural economies, grew by about 1,5%.

The dynamics of the GDP structure in Moldova, presented in the Table 3 below, shows that Moldova’s GDP structure changes in context of global economic tendencies. Since the Services sector accounts for the main share of value added, 59,4% (compared to the global of 64%) and the share of agriculture is decreasing, the economic structure may seem rather progressive.

Table 3. The Dynamics of the Structure of GDP of Moldova

GDP Structure, %	2000	2001	2002	2003	2004	2014
Gross value added	87,5	88,0	87,3	85,6	85,0	84,3
Agriculture	25,4	22,4	21,0	19,3	17,1	12,8
Industry	16,3	18,7	17,3	17,8	18,2	14,1
Services	48,2	49,2	51,0	50,8	52,2	59,4
Fin. intermediation services (indirect)	-2,4	-2,3	-2,1	-2,3	-2,5	-2,0
Net taxes, products: (taxes – subsidies)	12,5	12,0	12,7	14,4	15,0	15,7

Source: Based on NBSRM (2016)

However, value added in Services sector – through finance and trade – is merely a ‘formal’ contribution, in contrast to real, reflecting only a wage increase of individuals engaged in relevant business dimensions, and not of the economy as a whole. In addition, since 2000s, the share of agriculture started to pick up again within the global GDP landing at approximately 32%. Moreover, the development of one of the key services – trade – is mostly dependent on import of Moldovan products by the developed economies. For instance, in 2013, Moldova’s GDP was at \$7,453 billion, while the share of import was at \$5,492 billion, or at 73,7%. In 2015, import was at \$5,3 billion. The export share, at the same time, was about two times smaller and landed at \$2,4 billion (NBSM, 2016, IMF, 2016), which does not help Moldova to counteract its high external debt, which is more than 80% of GDP. In addition, Moldova is highly dependent on its European Union partners, which since 2008 absorb about half of its external trade (46,4%), which naturally impacts Moldova’s balance of payments. In 2015, Moldova’s export to the EU shrunk by approximately 2,3% (to \$1,1 billion) versus 2014, and import decreased by about a quarter, to \$3,6 billion, as the interest of the developed economies to import finished industrial products from their less developed counterparts is decreasing. The demand on imported products is mainly covered by Moldovans working abroad. They contribute by about \$1,5 billion yearly. This is considerably higher than the contributions of the foreign investors.

In addition, today, Moldova is one of the leading (top 8 out of 10) nations when it comes to healthcare and education spending, landing at about 12% and 8-10% of GDP, respectively. This is a rather high level only affordable to a limited number of economies. Despite that being the case, average longevity in Moldova is 70 years, throwing it to the 142nd place in the world, and 120th and 130th places, respectively, in maternal and child death (World Bank, 2016). Thus, there is obviously a challenge in terms of social services that Moldova is able to offer to its citizens.

In this context, it is also relevant to consider *how* the nations grow. Referring to World Bank, there are three consecutive stages of economic journey, from the first factor-driven to the second efficiency-driven, to the third innovation-driven stage of economic development (Schwab, 2015). Moldova is placed somewhere in the first towards the second stage of economic growth contrasting to its 1991 firm position as ‘efficiency - driven’ economy (for detailed analysis see Pischina, 2007, Pischina, 2007a, Pyshkina, 2002). The picture reflects overall condition of innovation in Moldova’s economy, the share of which is currently dangerously low.

In order to reach prosperity, various nations climb the ‘structural ladder’ utilizing own resources and capabilities, national interests and international context (Pischina, 2007). Globalization, as stated previously, poses additional dividing labour and capital in favour of the developed economies and creating gaps in resources and capabilities. In this sense, economies with higher share of high-technologies are ripping most benefits of post-industrial, information and high-technology era. Thus, it is unlikely that an economy becomes competitive, effective and prosperous when the share scientific and technological activities in its economy is less than 0,35% of GDP, which is the case in Moldova (in comparison, average EU spending is 2 to 3% of GDP). Thus, peripheral economies as Moldova, on the contrary, are not able to compete being dragged back in

some key respects in condition of globalization.

The above discussion uncovers deep structural challenges to Moldova and countries alike that lack key building blocks to create growth with prosperity. Moldova is in desperate need of an increase in high technology share in its infrastructure and its economy, to start with, as it is in creating solid base for its young professionals to engage into entrepreneurial activities. As much as Moldova is unique in its development path since the 1990s as well as its socio-economic condition, it shares commonalities with other developing economies in terms of the erosion of key building blocks of the economy. The following discusses those building blocks in more detail, pointing to the possibilities for Moldova and the economies alike to embark the qualitative growth journey.

3. Building Blocks of Qualitative Economic Growth

Considering the state of Moldovan economy, the prospects for growth appear only if essential economic cornerstones are recreated. This study makes the case that education and investments into innovations and other technology-intensive business activity can be used to curb the downward spiral. Investments trigger activities that increase qualitative share of the economy - innovations. That is when they comprise the true, or material, base of the economy. Innovations impact the change in the sources, types and quality of economic growth. In this way, they create quality in economic growth, which is reflected in production methods, new goods and services, as well as governance and management techniques, in other words, in all other spheres of economic activity. Quality in economic growth, in its turn, creates competitiveness, thus socio-economic well-being of the population in the long-run. As the result, technologically-induced transition to the higher stages of economic development takes place.

Arguably, the state of Moldovan economy, as well as many economies alike, does not allow to fully exploit the potential of technologically-induced economic growth, as the share of innovation and technological activity in the economy of the developing nations is normally rather small. However, this study suggests that with the help of investments, into education and innovation in particular, the development slope can turn upwards, and steeper than may be anticipated. It may be also assumed that today, when the IT-revolution is peaking and the global market is booming with technology, business, economic, political and other transactions shaping the future of even the most developed economies, is the perfect time to act to restore the position of Moldova and economies alike. As Keynes once noted, the best times to act are the times of growth, and not the fall of an economy. In this way, by creating crucial elements of innovation-driven growth into the structural ladder of the national economy, a few stages in economic growth that a nation normally has to go through, can be skipped at once creating faster economic growth.

Normally, private sector plays an important role in sustaining, or creating, economic growth. However, nations like Moldova are devoid of strong private sector that is able to push economic development forward to the necessary extent. This puts more emphasis on the role of the government, which has an ability to support economic growth by investing more despite budget constraints. Thus, the developing economies in particular should avoid the trap of long-lasting idle mode, neither obviously recovering

nor entirely collapsing, as it happened in the 1930s (Krugman, 2012). Idle mode, unfortunately, is the more appropriate characteristic that in most cases can be applied to Moldova and economies alike today.

Therefore, action is needed in the immediate future to start rebuilding the cornerstones of the economy. This article suggests at least three steps that will help trigger economic development with qualitative growth:

- Firstly, education system, especially higher education, must be reinforced and improved. Investments into education system, including the contents of the curricula and the technology around it, are essential to recreate economy's potential to create innovations and entrepreneurs,
- Secondly, foreign investments into economy and businesses is essential to recreate private sector that is one of the main engines of qualitative growth through job and wealth creation,
- Finally, the increase in innovative share in economic structure will help to create technology platform in order to hop over a few stages in economic growth offering developing economies quicker path to success.

3.1. Education

The relationship between education and science on the one hand, and competitiveness and technological activity on the other, has been explored through various angles. International economic discourse sometimes refers to a concept similar to the one illustrated in Table for, with reference to constituents of economic growth. This study describes mainly the effects of the first, second, third, fourth and sixth, however, it is important to bear in mind the complete value chain that is most effective to ensure long lasting economic growth with quality, also referred to as inclusive economic growth.

The importance of the first pillar dealing with education is hard to underestimate. In an economy with healthy competitiveness potential, education will form the background for economic activity through skilled labour force and healthy domestic labour market, as well as booming private sector in particular, hopefully with the large share of high technology activities, which will serve as basis for investments. The priorities of the education pillar, among others, are defined as:

- high-quality skills through learning
- inclusive education, equality and non-discrimination
- open and innovative approach
- support for teachers and professors across disciplines
- transparency of skills and qualification
- sustainable investment supporting quality and efficiency

In this context, tailored approach to university curriculum can boost the capacity of future professionals to create innovations and businesses, while creating jobs and avoiding brain drain. When individual success is possible, overall economic competitiveness by means of nation's own resources increases. Thus, education pillar positively affects the employment pillar, which should nonetheless be supported by appropriate compensation of labour based on market conditions. In addition, entrepreneurship and asset-building of

the economy through creating small and medium size businesses across various sectors, in particular, is necessary to create profitable growth of the nation.

Table 4. Pillars of Inclusive Growth (Qualitative Economic Growth)

Pillar 1: Education & Skills	Pillar 2: Employment & Labour Compensation	Pillar 3: Asset building & Entrepreneurship	Pillar 4: Financial Intermediation of Real Economy Investment	Pillar 5: Corruption & Rents	Pillar 6: Basic Services & Infrastructure	Pillar 7: Fiscal Transfers
-Access -Quality -Equity	-Productive Employment -Wage & non-wage labour compensation	-Small business ownership -Home & financial asset ownership	-Financial system inclusion -Intermediation of business investment	-Business & political ethics -Concentration of rents	-Basic & digital infrastructure -Health-related services and infrastructure	-Tax code -Social protection

Source: WEF (2017)

Even though investment statistics do usually provide enough explanation and correlation with competitiveness as such, the scientific potential of a firm has substantial impact on economic competitiveness. Thus, the share of research and development activities, especially when it comes to high technology products and services, to a large degree determines competitiveness. R&D activities usually depend on the quality of education and training of young professionals. In this way, clear link between education, science, and national competitiveness can be established. Education and science leads to innovation and entrepreneurship, which in its turn leads to increased competitiveness in knowledge-based economy, and finally to qualitative economic growth. To be able to introduce such growth in Moldova, basics of the economy have to be rebuilt after years of unfortunate economic downward slope experienced.

3.2. Investments

Position of the developing countries such as Moldova is rather vulnerable at a global stage, as previously discussed, where the forces of globalization create asymmetries between and within various nations. Investments is another powerful tool to sustain 'real' growth of the economy, or inclusive, or qualitative, growth. It is available in economic policy toolbox and is effective especially in conditions of weak and sometimes inadequate credit and monetary policies. This brings to the fore the sixth pillar of inclusive growth. However, in view of this study, not only should the investments be made into infrastructure and healthcare, but also into innovative activity, technology and entrepreneurship.

The obvious strengths of investment programs is in their effect on capital accumulation, and the expansion of economic and technological potential. Without investments, both internal and external, the economy stagnates being unable to recreate itself even under normal market conditions. For instance, if an economy is dominated by low income households unwilling or otherwise unable to support it by injecting money, the economic turnover and growth rate will eventually stagnate. Investments are crucial, yet the optimal level is not easily attainable for the developing economies, particularly when it comes to foreign investments. Economies with lower development levels are usually prone to low national savings and low GDP, coupled with negative labor productivity and resource lack, all of which creates economic climate unfavorable for investment ambitions.

Investments provide the opportunity to turn around the economy by uniting key components of the production chain into full-fledged industrial clusters. As noted previously in Table 4, investments into infrastructure as important, as they are usually massive projects with multiple external effects with positive long-term socio-economic impact. They secure growth in production capacity across sectors of the economy. Production capacity, in its turn, boosts aggregate demand with multiple positive external effects. Equally important are the investments into the innovative activity in the economy. Global practice demonstrate multiple positive effects, particularly when partnerships between larger and smaller businesses, venture capitalists, and the government are established, since those actors are able to support innovations from idea to commercialization from various angles.

Even though Moldova today finds itself in a challenging position, it has a number of advantages that make it lucrative to invest into. The country favourably located, which can attract business interested in the dynamic Eastern and Western European markets. It has enormous potential in its agricultural sector, with strong history of production of wine, fruit, walnuts, sunflower, and meat exported to Eastern & Western partners. It offers high connectivity and high-quality education and healthcare, and most importantly is not prone to conflicts thus offers relative safety and geo-political stability. Moldova is overall strong in the spheres of microelectronics and semiconductors, including laser technologies. Moldovan physicists closely cooperate with the world centers in USA, Russia and other partners producing semiconductor materials and devices based on them. IT specialists of Moldova are considered to be among the best in Eastern Europe. Moldova's non-profit sector is a form of entrepreneurship working to support social security through a number of foreign investments. Besides that, European Bank for Reconstruction and Development holds a portfolio of around half a billion euros in Moldova, including twelve projects, eight of which in the private sector, for example Draexlmaier (German producer of parts for automotive). Overall, Moldova managed to attract about \$3,5 billion with capital rate at 15-16%, which is more than half of its GDP. Building on its potential, in the next five years, the country must be able to accumulate about twice as much capital in foreign investments.

3.3. Increasing Innovative Share: Technologic Leapfrogging

Investments into infrastructure and other basics of the economy and society are important. Yet, for countries like Moldova, investments must be made in innovation-based type of economic growth. That is, economic based not on the production and consumption of material goods as such, but on creation and consumption of information-technology goods and services, in other words, high-technology products. This may seem like a controversial statement given the low share of innovation and technology, as previously discussed, and the high share of agriculture combined with low productivity problem in Moldova's economy today. According to the World Bank, the value added per worker in agriculture in Moldova is approximately \$2,5 thousand, compared to Spain with \$45-50 thousand, or Norway of up to \$70 thousand, or European Union average value of approximately 20 times higher than in Moldova. Thus, labour and cost intensive agricultural products are the main source of export and heavy industry is unlikely to be the basis of economic growth.

However, this study suggests that changing the structural component of the investments into innovation-driven sources, types and quality of economic growth is possible and even necessary, as they comprise the basis for qualitative, inclusive, economic growth. Innovation factor must also be included into the development of key infrastructure, including digital economy. Moldova with its high potential in high technologies, supported by investments into education as described previously, has the potential and the prerequisites to create knowledge-based economy, by integrating innovations into its main structures.

In this context, Moldova should also be able to reap the benefits of globalization, with its integrative power, where the activities of international corporations penetrate national markets and economic structures across borders and regardless of the structural stage of their economies. In this way, the developing economies like Moldova get a unique chance to climb several levels in the structural ladder at once, increasing high technology share in their economies at a reduced time, and catching up with their industrialized partners.

Herein, technological component of the economy may be approached differently to most highly-developed economies of today that have overtime been focused on creation of own innovations, United States being one prominent example of such (see discussion in Pischina, 2007). Instead, Moldova and countries alike may approach innovation creation through importing and integrating existing innovations. The effectiveness of this approach is proven by a number of global economies, including, for instance, Japan and China. Imitation and adaptation of the new technologies is a borrowed concept of technological 'leapfrogging' found in particular in mobile systems and technologies, which allowed developing economies to establish infrastructure at times superior to that of the developed economies, although as a later stage (Goldemberg, 1998, Murphy, 2001). In this way, the economies that are late to the industrialization game can jump over various inferior or more costly and less efficient technologies that the first movers had to go through in the stages of development of those new technologies, in other words they can climb several stages of the structural ladder at the same time (Lenzner, 2011).

However, rather than merely consuming existing methods and technologies of already existing inventions Moldova, in contrast to other examples of nations with comparatively lower levels of economic development, is capable to use its own potential in terms of research and development, as well as testing and implementation of the new technologies. As previously described, the country's own highly qualified professionals in IT, physics and chemistry can further develop existing innovations and produce new goods highly competitive not only due to lower costs of the labour force, but also because of their quality according to global standards. In this context, there is certainly a window of opportunities for Moldova to create meaningful growth for its society.

The potential of the ongoing revolution associated with computing technologies is borderless and far from fully understood, which gives room for new products and services to be developed across all spheres and industries, from robotics to home appliances. This facts opens up numerous opportunities for smaller developing economies, such as Moldova, to become the outsourcing, testing, implementation and development hubs for the upcoming technologies whereby creating economic growth and well-being for its core population. As the global economy becomes less and less resource-intensive in the traditional sense, shifting from production to the intangible resources represented by the people, the possibility to exploit its potential in terms of highly educated labour force is now unique for Moldova. In order to trigger this transformation, the key building blocks of the economy must be created, most importantly, education, investments into entrepreneurship and infrastructure, high-technology, people and other sources of innovation, as well as through partnerships uniting large corporations and businesses with smaller firms, as well as venture capital funds and 'angel' investors with direct support of the government securing the evolution of innovations from the first stages through commercialization. Thus, Moldova must create innovative type of economic growth based on the creation and consumption of information and technological goods and services.

In order to trigger those investments, it is necessary to increase the interplay between businesses and the government based on shared understanding of common needs and to create adequate fiscal, administrative and regulatory conditions for businesses to overcome challenges related to consolidation and modernization of Moldova's business, as well as to increase competitiveness and capital intensity in the economy and to provide new work places for Moldova's population. Moldova rests, among many, with one of the most challenging issues caused by globalization, which is to effectively integrate into the global context and to preserve national interests while taking care of various resource limitations. It is important to build effective horizontal touch-points with other regions, the EU and Russia, having a clear socio-economic strategy that would help to secure stable and profitable levels of economic growth in the long term.

4. Conclusions

This article is intended as overview of the relationship between competitiveness and economic growth on the one hand, with education, investment and innovation on the other, using the case study of the Republic of Moldova. The appropriation in levels of competitiveness differs depending on the stage in economic development of a given nation. Indeed, some argue that there is an optimal level of competition for certain

economic conditions, and that maximum competition is not always better (Singh, 2002). This article highlights the positive effects of competitiveness for economies balancing between factor-driven and efficiency-driven stages of economic growth. The example of Moldova shows that there is high potential for developing economies with a share of skilled intangible resources, given that the key building blocks of economic growth are reconstructed, such as education, infrastructure, entrepreneurship and the share of innovation.

As globalization affects various nations in various ways, it can be both an enabler of economic growth and a limitation through inequality gaps between developed and developing economies. In this context, the latter must find a way to restructure towards growth and to remain competitive. To do so they must orient their efforts into technology, infrastructure, people and other sources of innovation, since they lack some of the crucial components of growth available to the developed industrial economies. This study emphasizes at least three steps that will help to gain growth with quality: improve the education system, especially higher education, including scientific research; attract foreign investments into economy and businesses; increase innovative share in economic structure and build technology platform to leapfrog through various stages of technological and economic, or 'structural', ladder.

Quality of economic growth is determined by the qualitative components of an economy. Therefore, it is important to build blocks to create those qualitative components, such as solid education and science, and investments, both in core elements such as infrastructure, and into entrepreneurship and technology-driven part of the economy. Investments into infrastructure have an ability to induce multiple and long term positive outcomes, to stimulate aggregate demand and positive socio-economic impact. Moldova must create an infrastructure with higher qualitative share of innovations able to justify higher levels of investments, substituting today's 'competitive' condition of cheaper land and labour force. Moldova must be able to promote what actually makes it qualitatively different from its neighbours: safety and stability, high connectivity, high-quality education and healthcare. In this way, increasing the share of innovations opens new frontiers for creating competitiveness, and thus economic growth in conditions where technological progress is limitless. Thus, the possibility to hop over several stages of the structural ladder at a time entering the path towards qualitative economic growth is an attainable goal for Moldova and countries alike. This article notes only a few crucial components for qualitative economic growth. It addresses how the power of education and science can spur investments and innovation-creation, which in its turn increases competitiveness. However, the entire value chain must be addressed and reconstructed to create meaningful bottom-up economic growth in the long run.

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A Study of the Views of Respondents on the Functioning of PRIMO. Information Retrieval System in Universities from Moldova

Elena RAILEAN¹, Liubovi KARNAEVA²

Abstract

This article reflects the results of a survey of users' opinions about the PRIMO search system, which was implemented in seven universities in Moldova. The peculiarities of PRIMO system implementation in higher educational institutions of the country were revealed and recommendations for its promotion in the educational and scientific community of the Republic of Moldova were suggested.

Keywords: Information retrieval system PRIMO, questionnaires, respondents, repository, scientific community, search algorithm, keywords, promotion, training.

1. Introduction

The search platform PRIMO has become a new phenomenon in the information and educational space of the Republic of Moldova. Its launch and adaptation brought new opportunities in the information retrieval of university libraries, facilitating the receipt and processing of necessary information. However, the use of all the possibilities of the search engine requires careful preparation of the intermediaries in the transfer of information in the person of library specialists, as well as the training of the final/proper users.

The full potential of the PRIMO information product can only be used to the maximum by a trained user, and its preparation should become a systematic, well-thought-out process of the library specialists.

The users' training in the use of PRIMO information platform and institutional repositories should be based on the study of consumer information: their motivation, preferences, difficulties in using, suggestions and recommendations.

The study of the opinion of teachers, masters, doctoral candidates and students about the PRIMO search system was an important moment in the implementation of the project "Modern Information Services for Improvement Study Quality" and the report point for improving the functioning of this system and its promotion in the educational space of the Republic of Moldova.

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2. Results of the questionnaire

The study was implemented in September 2016 year among the seven universities-participants of the project.

The purpose of the study is to identify awareness and users opinions about the new search system PRIMO and institutional repositories.

The objectives of the study were:

1. Determination of the level of consumer knowledge about new search platform PRIMO;
2. Identification of the most important characteristics of this system;
3. Opinions studying on the attractiveness of the repositories of higher educational institutions for the scientific community and students;
4. Analysis of users recommendations and suggestions on the effectiveness of the PRIMO system functioning.

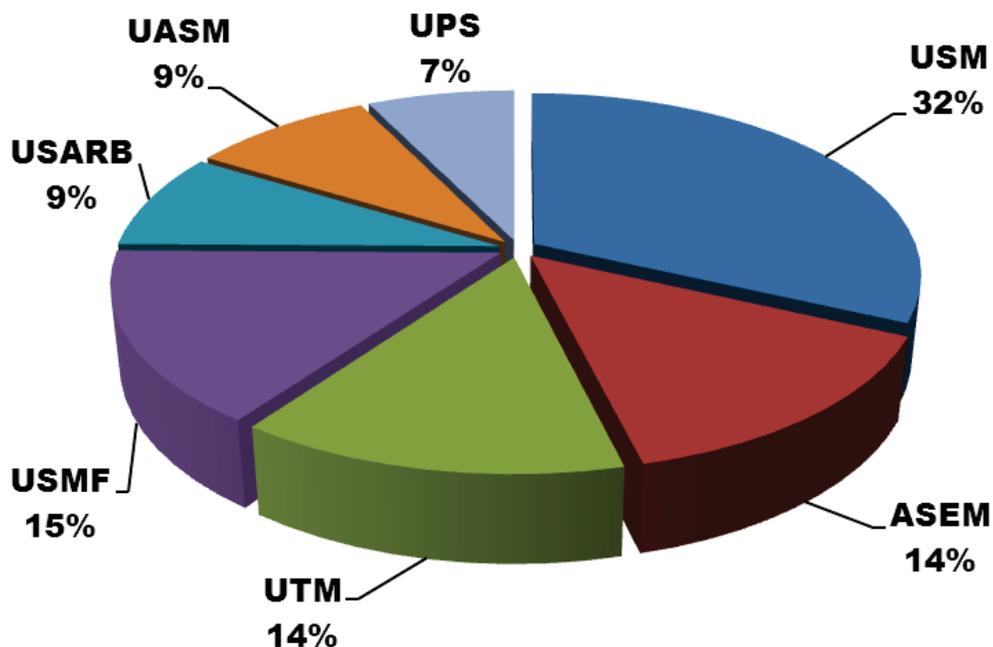
Sample of the survey complies the largest universities of Moldova: Medical University of Moldova, N. Testemițanu, Bałți University, A. Russo, Agrarian University of Moldova, Academy of Economic Studies of Moldova, Moldova State University, Technical University of Moldova, Pedagogical University of Moldova it. I. Creangă.

Quota sampling. It is a model of the general population, which is represented by quotas, certain groups with common statistical characteristics.

702 respondents from seven universities participating in the project attended the questionnaire survey. Respondents were offered a questionnaire containing 21 items, among which there are open and closed questions, semantic differential, Likert scale, etc.

The percentage of respondents from the universities responding to the survey is presented in Figure 1.

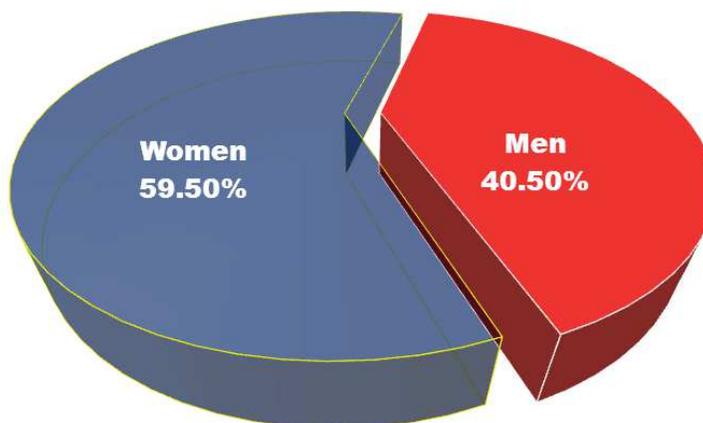
Figure 1. Respondents of higher education institutions taking part in the survey



Source: Elaborated by author

Among the respondents - 40.5% of men and 59.5% of women (Figure 2).

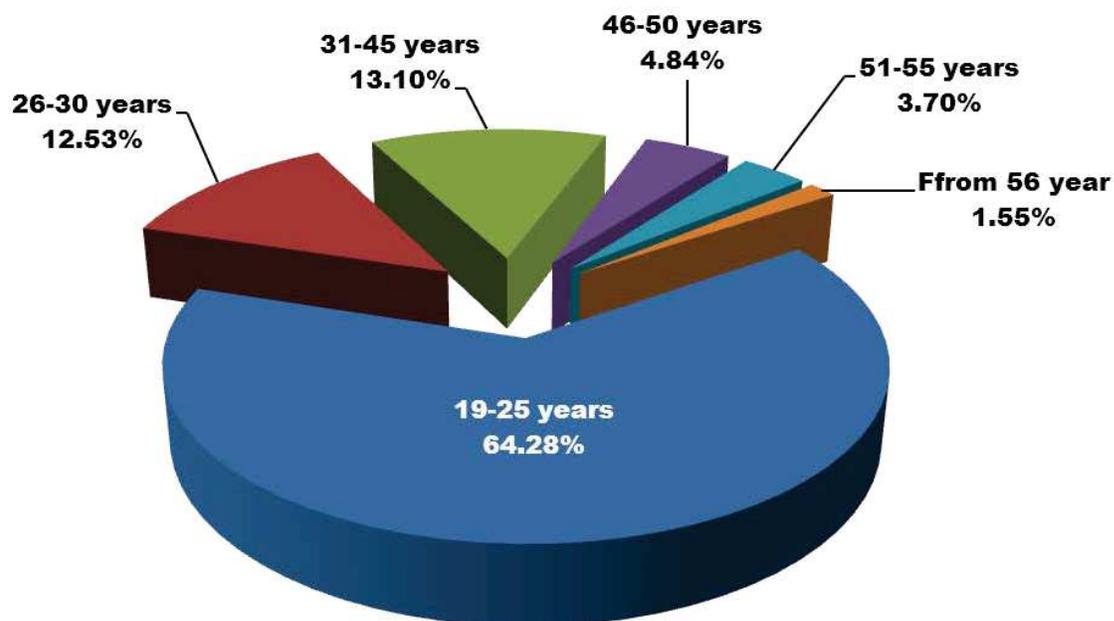
Figure 2. Gender of respondents



Source: Elaborated by author

The age structure of the respondents is presented in Figure. 3.
Thus, in the survey, respondents were mostly from 19 to 25 years old - 64, 28%.

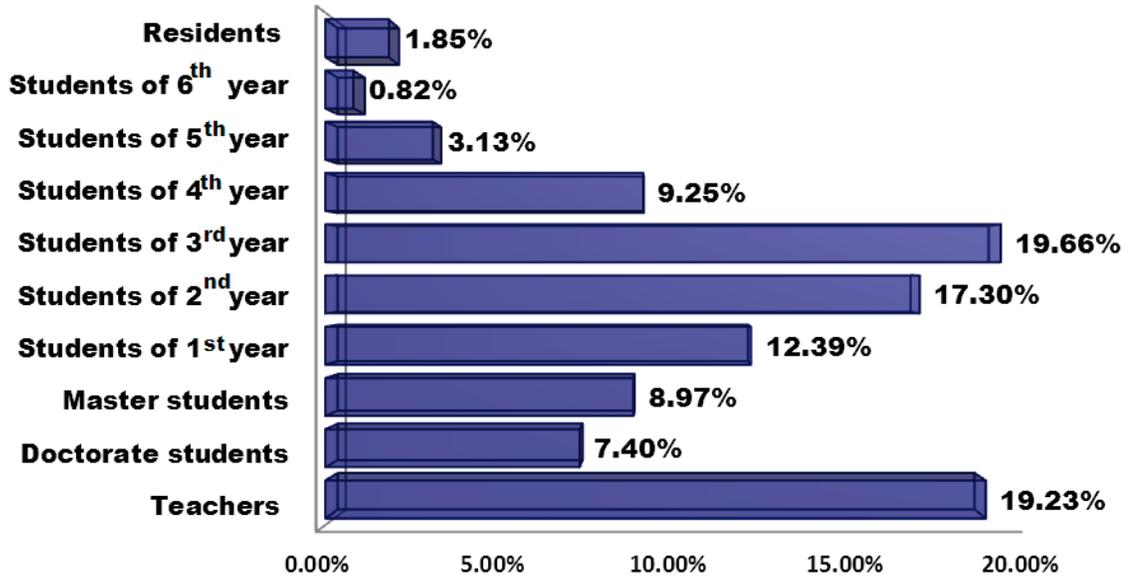
Figure 3. The age structure of the respondents



Source: Elaborated by author.

Status of respondents is represented in Figure 4.

Figure 4. Status of respondents

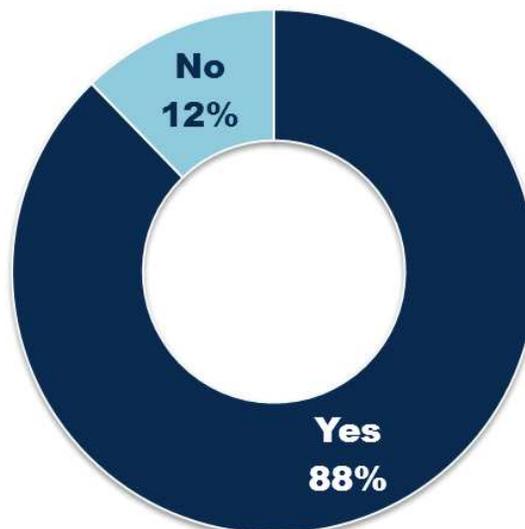


Source: Elaborated by author

Thus, we can note a balanced presence in the study of representatives of different status groups of users: from students to teachers.

On the first question of the questionnaire, *"Do you know about the new search online PRIMO platform in your library?"* 87.74% of respondents answered - yes, 12.26% answered negatively (Figure 5).

Figure 5. Do library users know about the new PRIMO search platform?



Source: Elaborated by author

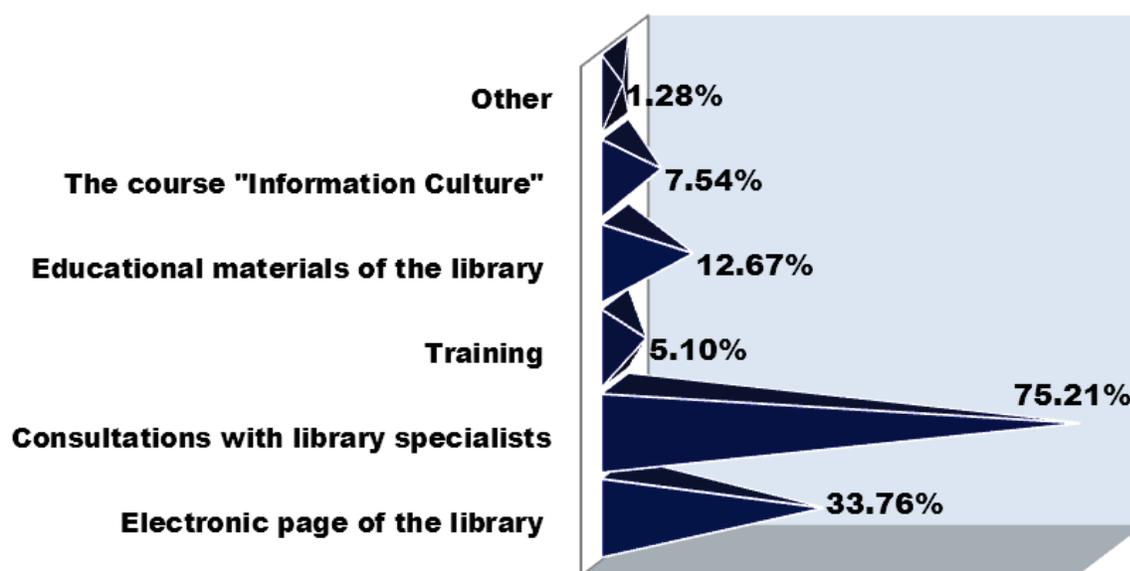
Respondents' answers demonstrate a fairly high result. Despite the short time period of presence on the websites of university libraries, the information product is already well known to users, indicating its successful promotion in the scientific and educational environment of the leading universities of the country.

Among 12.6% of respondents who do not know about this search platform, there are respondents who do not know that this system is called PRIMO, but subsequently note the advantages of the system and the frequency of its use.

This nuance demonstrates the lack of knowledge of respondents who use this information product, but do not have enough information about it.

Answers to the question *"Where did you learn about the new search platform in your library?"* allowed to reveal the effectiveness of various channels and ways of transferring information for PRIMO platform promotion (Figure 6).

Figure 6. The effectiveness of different channels and data transmission techniques for the promotion of PRIMO platform



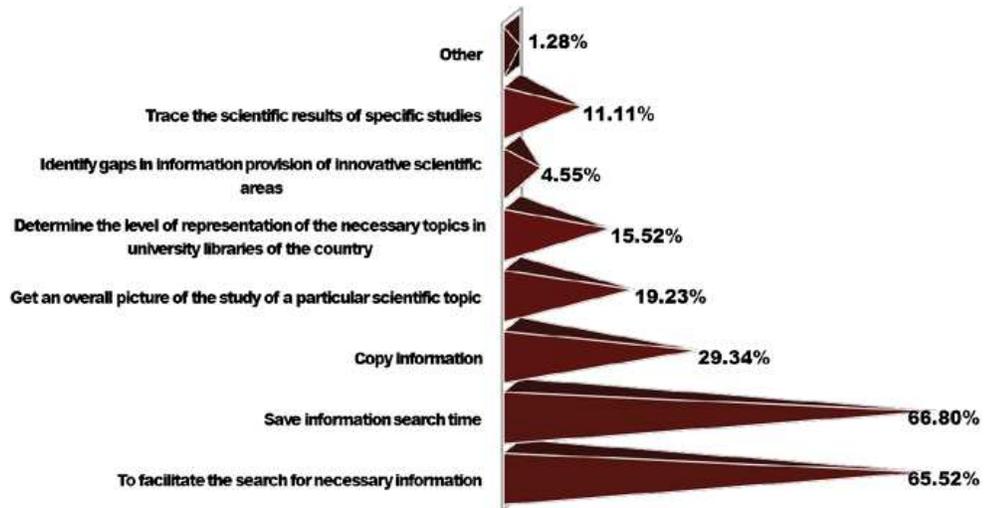
Source: Elaborated by author

While answering this question, respondents noted the complex impact of various information channels on them. The most popular, due to the complexity of this product are consultations with the librarian - 75.21%, the electronic page of the library - 33.76%, teaching materials - 12.67%, the course "Culture of Information" - 7.54%; training - 5.1%.

A small percentage of respondents found out about the PRIMO search system at the university senate, from acquaintances, from social networks, etc.

Therefore, there must be used various channels of communication in complex for effective impact on users and focus on the most popular among them.

The advantages of the PRIMO search platform and its functional features were determined by the respondents when answering the question *"The new search system of the PRIMO library allows"* (Figure 7).

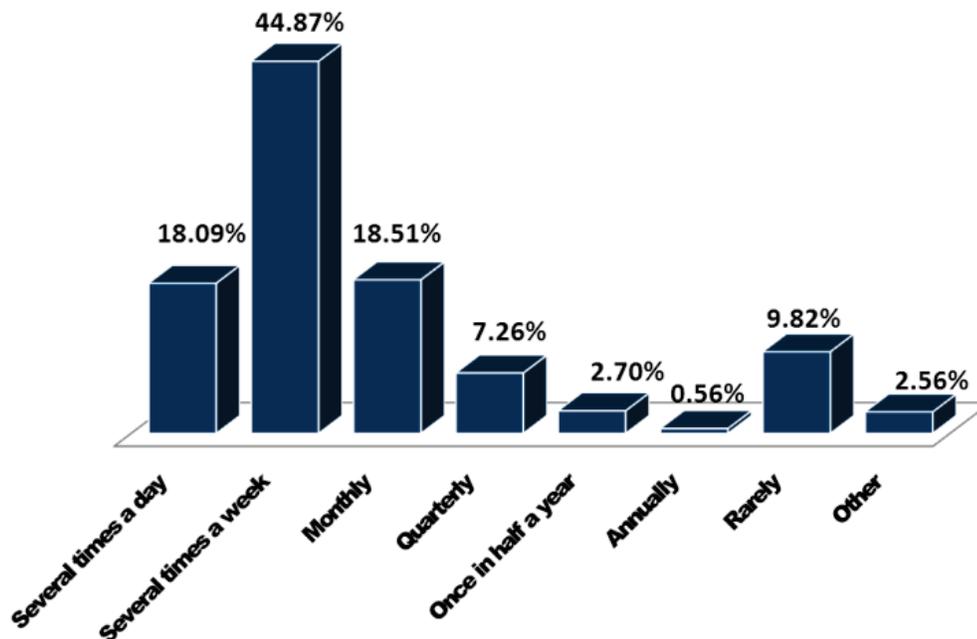
Figure7. Possibilities of the PRIMO search platform

Source: Elaborated by author

The most important advantages, according to respondents, are facilitating the search for necessary information - 65, 52% of respondents and saving time for searching for information - 66, 80%.

Doctoral students, masters and teachers noted such advantages as: to get a general picture of the study of a specific scientific topic -19.23%; results of scientific researchers -11.11% and others.

The respondents' answers to the question, "*How often do you search for necessary information through the PRIMO search system?*" are represented in Figure 8.

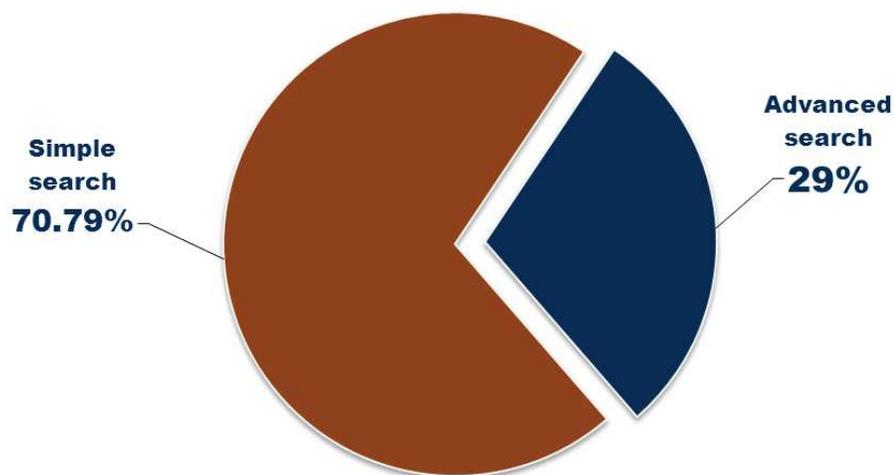
Figure 8. Frequency of use of the PRIMO search platform

Source: Elaborated by author

Thus, we can note the usefulness of the PRIMO platform and interest in it, as 44.87% of respondents use this platform weekly to search information, 18.09% - daily. The percentage of respondents who rarely use the PRIMO platform is still significant, which is explained by the short period of the presence of this product in the information market of Moldova and its availability for our consumer.

An analysis of the answers to the question: *"What type of search do you most often perform?"* showed that users are more likely to use simple search - 70.79%; advanced search is more used by 29.21% of respondents (Figure 9).

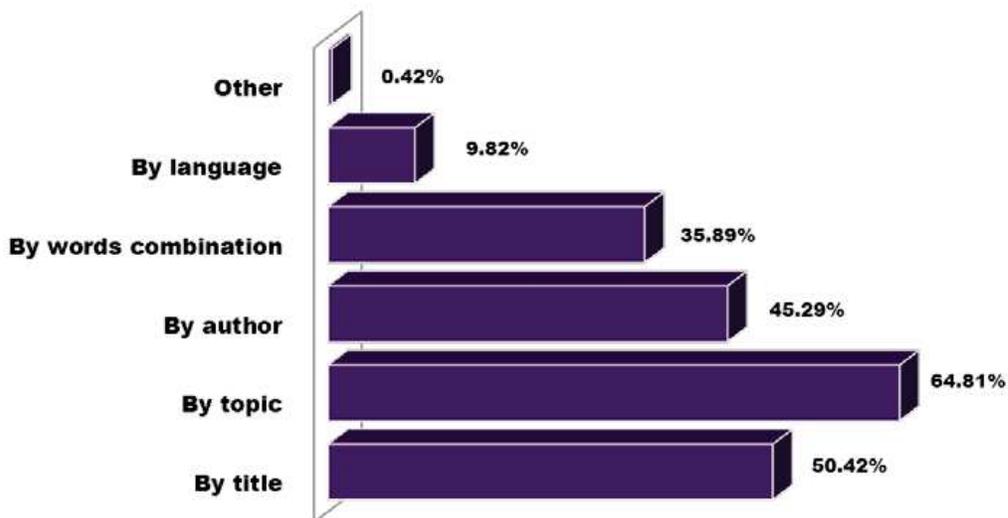
Figure 9. User preferences in the selection of search types in the PRIMO search system



Source: Elaborated by author

Answers to the question: *"What criteria do you use more often for advanced search?"* show results are represented in Figure 10.

Figure 10. Criteria for advanced search, more commonly used by users

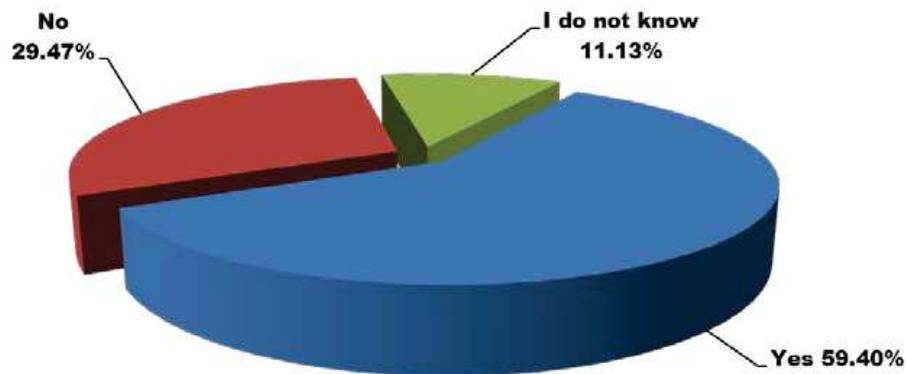


Source: Elaborated by author

Thus, it can be argued that users are more likely to use advanced search by the topic - 64.81% and by title - 50.42%. These criteria are more popular and understandable for students.

Answers to the question *"Do you need help from librarians in mastering the skills of using all the possibilities of the PRIMO new search system?"* allowed to identify the respondents' need for support and assistance from librarians. Thus, more than half of the respondents need the help of library specialists to master the skills of using the PRIMO information system - 59.40%. Do not need the help of librarians 29.47%, respondents who are undecided, that is, those who do not know whether they need or do not need specialist help - 11, 13% (Figure 11).

Figure 11. The need for assistance from librarians in mastering the skills of using the PRIMO search system

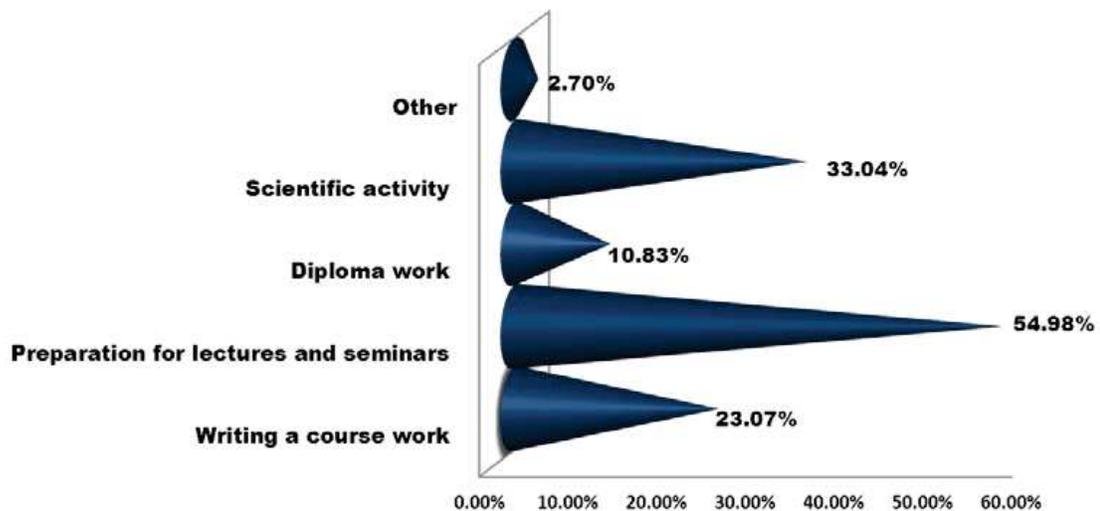


Source: Elaborated by author

Thus, the majority of respondents need the help of librarians, whose competencies help to form skills in using the search platform PRIMO.

An analysis of the answers to the question *"What is the motive for accessing the new library search system?"* revealed results represented in Figure 12.

Figure 12. Motives for accessing the new library search system



Source: Elaborated by author

Thus, it can be stated that most often the motive for accessing the information platform PRIMO is: preparation for lectures (seminars) - 54.98%; scientific activity - 33.04% and writing of course and project works - 23.07%.

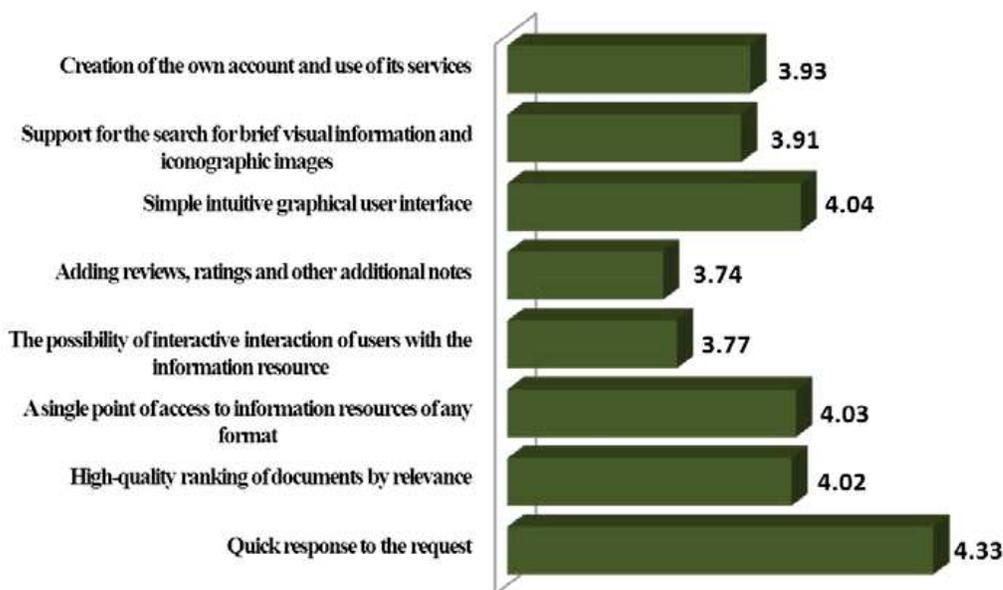
Respondents were offered an evaluation scale on which they noted their attitude to the PRIMO search system. The average arithmetic estimate was calculated, which was 4.96.

So, the respondents gave a very high score to the PRIMO search system and expressed their unconditionally positive attitude to this information product.

Respondents rated the PRIMO information system according to various criteria on a 5-point scale. Average arithmetic estimates were calculated by the following criteria:

- Quick response to the request;
- High-quality ranking of documents by relevance;
- A single point of access to information resources of any format;
- The possibility of interactive interaction of users with the information resource;
- Adding reviews, ratings and other additional notes;
- Simple intuitive graphical user interface;
- Support for the search for brief visual information and iconographic images;
- Creation of the own account and use of its services. (Figure 13)

Figure 13. Evaluation of the PRIMO information system according to various criteria on a 5-point scale

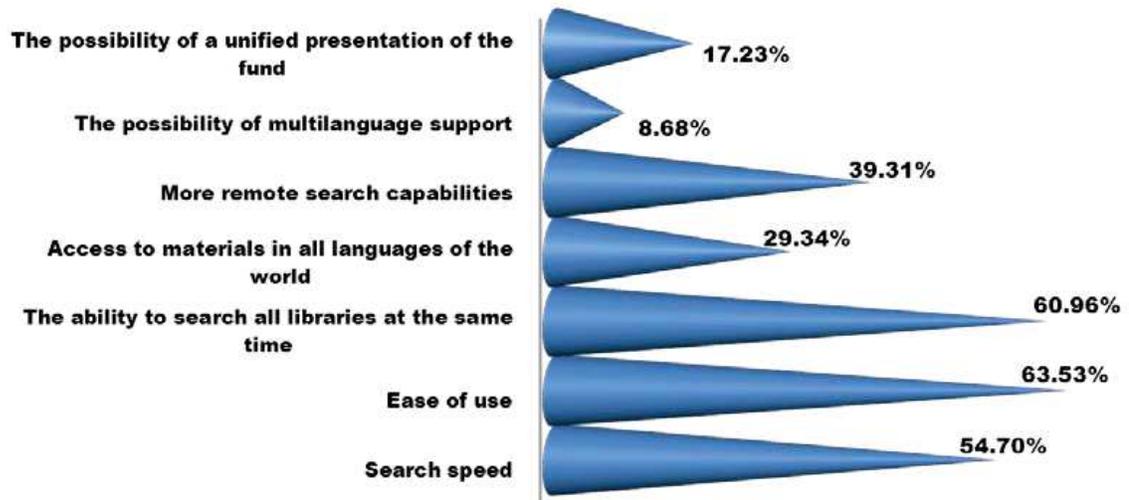


Source: Elaborated by author

Some respondents found it difficult to rate the various characteristics of the PRIMO search platform, as they are not sufficiently informed about all the features of this platform. Thus, this questioning additionally had an informative and educational function, promoting the merits of the system.

The respondents noted the advantages of the new PRIMO search system; their answers determined the results represented in Figure 14.

Figure 14. Advantages of the new PRIMO search system



Source: Elaborated by author

Thus, we can state that the three main advantages of the PRIMO platform are: ease of use - 63.53%; the possibility of simultaneous search in all libraries - 60.96%; search speed - 54,7%.

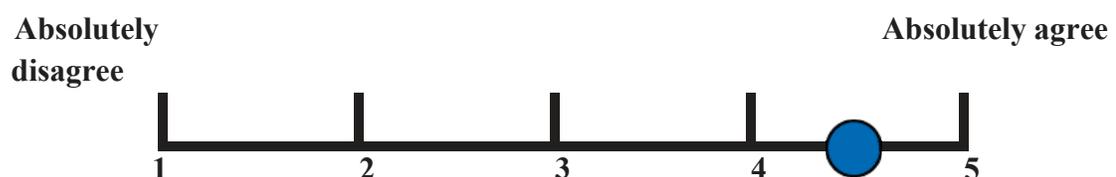
An analysis of the answers to the question: *"Do you know about the existence of an institutional repository on the library's electronic page?"* revealed that 60.68% of respondents know about the existence of the repository, 39.32% do not know.

Thus, there is a need for more active promotion of institutional repositories of universities among target audiences.

Respondents were asked a scale question: *"How attractive do you think the idea of publishing online the results of your own research in the library's repository?"*. Based on respondents' answers, the average arithmetic estimate was computed, which was 4.21. Thus, it should be noted that not for all groups of respondents the idea of publishing the results of scientific research is attractive. This aspect is of interest mainly to teachers, scientists, masters and doctoral students.

Respondents were offered a Likert scale, where they noted the degree of their agreement or disagreement with the statement that *"Today's students and researchers expect library and information systems to have the same speed, ease of use and satisfy their search queries that they receive on the Internet."* The weighted average was 4.43 (Figure 15).

Figure 15. The consent of the respondents with the statement about the requirements for the "library information system.



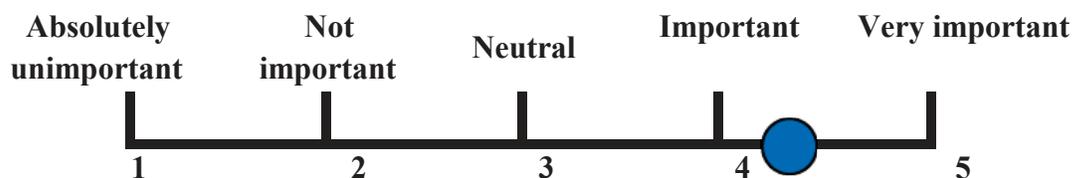
Source: Elaborated by author

The PRIMO search platform most fully meets the needs of users, approaching the Internet search systems, which the consumer uses as: a source of information, a place for information exchange and the placement of personal information.

If earlier the library systems provided only the address of the information placement, then with the help of the PRIMO information retrieval system, users get access to the full texts of electronic documents and other materials.

When answering the *question "How important is the new search system of the PRIMO library in improving the efficiency of teaching and scientific production?"* the respondents noted their answer on the scale. The weighted average was 4.33, that is, between positions "important" and "very important" (Figure 16).

Figure 16. Importance of the new search system of the PRIMO library in improving the efficiency of teaching and scientific production



Source: Elaborated by author

Thus, it can be argued that the majority of respondents recognize the importance of the PRIMO search platform for increasing the effectiveness of training and scientific production.

The PRIMO search platform allows the remote user to use library resources in the same way as readers working in the library.

Simplicity, clarity, clear structuring of resources helps users to easily find the necessary information, analyze and manage it, forming a baggage of professional knowledge of specialists, creating on its basis their own scientific and didactic developments.

The unified search interface of the PRIMO platform provides access to the richness of the scientific content of the country's university libraries, including print and electronic collections, that allows tracing the academic productivity of scientists.

The search algorithm in PRIMO guarantees the most relevant results based on the search context, which improves the quality of scientific research.

The respondents pointed to the aspects of the functioning of the PRIMO search system, which require mandatory adjustments in order to improve information retrieval.

These aspects include:

- Improving the management of electronic documents;
- Lack of most links to full-text versions of articles;
- Location of the search system on the site of the university, and not on the site of the university library, which would facilitate access to it and search for information;
- Lack of a large number of bibliographic descriptions in Russian, in the original language, which is inconvenient for users;

- Introduction of the possibility of reservation of documents through this search system;
- The impossibility of sending information found in PRIMO to the email;
- The absence on the shelf in the library of some publications marked in PRIMO.

In the new network environment and the current economic conditions of functioning, libraries can and should join forces to optimize collections, technical support, increase the purchasing power of libraries through project activities and increase staff knowledge.

The development of information technology opens up wider opportunities for the uniform dissemination of knowledge. The visualization of the potential of the scientific resources of the Moldovan universities makes it possible to determine, acquire, monitor and promote the scientific resources of the universities in the shortest possible time, both on the domestic information market in Moldova and on the international market.

Respondents suggested some recommendations for improving the use of the new search system, which can be combined into the following groups:

- Intensive training of users in the use of all the possibilities of the PRIMO search system;
- Providing the necessary training information for various serviced segments: students, teachers, master students, doctoral students;
- Promotion of the PRIMO search system at various university events, using various communication channels at various levels.
- Respondents also strongly recommend improving the reservation and ordering of necessary information, optimizing the search for articles from conference collections, auditing the presence of all library publications in the PRIMO system.
- Respondents offer:
 - Implement the ability to change personal data, such as a password;
 - To make so that links to electronic materials work;
 - Simplify access to language selection options, highlighting Romanian and Russian in a separate rubric, which will speed up access to texts in these languages;
 - Unify bibliographic records in Russian;
 - To introduce the possibility of communication for users.

3. Conclusion

Based on the conducted research on the opinion of respondents on the PRIMO information search system and its functioning, the following conclusions can be drawn:

- Information and search platform PRIMO is a new phenomenon in the library space of the Republic of Moldova, which allows speaking about the importance of this technological breakthrough for the information market of Moldova;
- The PRIMO toolkit allows carrying out an integrated search in the library catalogs of the country's largest university libraries and, on a single request, providing access to information resources of any nature;
- The results of the questionnaire determined a high level of awareness of the respondents about the new information product - the PRIMO platform, which

indicates a developed program of promotion by library specialists-participants of the project;

- The research demonstrated the great interest of users of information to this search system, but revealed a lack of knowledge in them regarding all the possibilities of the system, which is explained by the short period of stay of this product in the information market of Moldova;
- The most effective among the channels and ways of transferring information to promote the PRIMO platform are, in the opinion of the respondents, consultations with the librarian, since this information product is quite difficult for self-mastering;
- The majority of respondents use the PRIMO search platform every week and the motives for using it are, mainly, educational and scientific activities;
- The introduction and use of the information search system PRIMO for the community of the Republic of Moldova requires careful preparation of library specialists, who in turn must train students and scientists to use the full range of the system's capabilities, which will increase its effectiveness;
- Important advantages of the PRIMO search platform, according to respondents, are: the ability to simultaneously search across multiple libraries, save time resources and easily find the necessary information, which is very important in the age of information overloads;
- Institutional communities of higher education institutions for the most part (2/3) know about the existence of an institutional repository and consider it attractive to publish the results of their research in them, but do not yet have sufficient knowledge about the procedure of archiving and self-archiving their articles. The intermediary role of the library and its mission in this process is undeniable;
- The respondents highly appreciated the PRIMO search system, having estimated 4.96 on a 5-point scale, which indicates the recognition of the value of this information product, both for the scientific community and for students;
- Most respondents recommend intensive promotion of the PRIMO search system: training users in the use of all the features of the system; providing the necessary training information for various serviced segments; promotion of the search system at various events of universities, using various communication channels at various levels;
- Information-search platform PRIMO contributes to the promotion of library collections of the university libraries of the Republic of Moldova, promotes the visibility of library services, demonstrates their value to the top management of educational institutions;
- The PRIMO system provides rich analytical material that allows monitoring its functioning, increases its efficiency and optimizes the development of the collection;
- Information platform PRIMO promotes the promotion of regional content, for example, scientific results of Moldovan scientists in the world scientific space;

- On the basis of the PRIMO search system, the cooperation of the Moldovan libraries is expanding, the activities of member organizations are being coordinated, and unique opportunities for library consortia are emerging.

The university library today cannot be open, accessible, popular and effective without a modern information retrieval system, which is PRIMO.

Open collections, access to a single request to information of any nature, popularization of library services increase the value of the collection and the competitiveness of the library as a whole, contribute to the maximum satisfaction of the need for scientific and educational information of students, teachers and scientists.

The main resources in the 21st century are information and intellectual capital and high-quality information retrieval systems of the PRIMO format become that vital source that feeds and satisfies the need for high-quality information (unlike the Internet) and which will contribute to the development of the country's intellectual potential. This is what people have always dreamed of - to have at hand any information they need at any time. And they will go to the library not only through communication channels, but also just come to look through the books.

Social Economy as the Mainstream of the European Union Development

Diana GAFAROVA¹, Oleg Zatepyakin²

Abstract:

The global community is striving nowadays to find ways to stabilize social processes, as well as to solve the problem of involving socially vulnerable groups in the social and economic life and work out a strategy for reducing long-term unemployment. The development of the social economy has been chosen as the mainstream of the European Union development. A great deal of attention of European Commission is paid to studying and development of recommendations on the introduction of principles of social economy, both in the basic EU countries and in the countries that are becoming the new members of the EU. However the national approach to the legalization and support of social companies is used in each country. So, for example, in Slovakia it is supposed to create social enterprises for inclusion of disadvantaged people to the labour market first of all. Along with support of the traditional actors of the social economy, the EU is also actively developing new forms of social economy actors, social enterprises are primarily among which. The development of the principles of social economy and the activation of social enterprises is relevant for many post-Soviet countries, including Russia. However, so far in Eastern European scientific practice, many researchers do not see the difference between the concepts of social economy, social market economy, solidarity economy. The key characteristics of the social economy are considered in the article, the interrelation of social, social market and solidarity economies is observed, modern trends in the construction of the social economy of the EU are highlighted.

Key-words: Social economy, Social market economy, Solidarity economy, Social economy company, Social enterprise

1. Introduction

The European Union (EU) economic development strategy «A strategy for smart, sustainable and inclusive growth EUROPE 2020», approved by the European Commission in March 2010, notes that Europe is experiencing a crisis which exposed structural weaknesses in Europe's economy and faces a moment of transformation.

The Declaration, signed in Bratislava on December 1, 2016, notes that, despite the fact that at the end of 2016 there was an economic recovery in the European Union, there are regions and wide groups of citizens who are not benefiting from economic growth, and there is a significant problem of finding a way of unemployment's decreasing. The

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Declaration emphasizes that only more inclusive economy could reduce inequalities in income and wealth and contribute to the common European effort to combat social exclusion and thus to the return of EU citizens to the European integration project.

At the same time an implementation of a Social economy was chosen as a priority direction for the development of the European Union. The European Parliament, the European Commission consider that Social economy can become an effective mechanism for the integration of the European Union and for economy's stabilization. This mainstream corresponds to such priorities of the EU development mentioned in EUROPE 2020 as reduction of poverty and social exclusion, and modernization of labor markets, developing labor mobility and labor skills of all groups of citizens of the EU countries.

As it was estimated in official European statistics in 2010 the Social economy already provided work to 14.5 million Europeans and, according to the latest estimates, in 2016 accounts for 10% of jobs in the EU and 8% of EU GDP.

The European integration project is based on the principles of democracy, equality and diversity. The Social economy implements unique organisational models such as social enterprises which are based on the same principles. The strength of the Social economy is based on four values: collaboration, solidarity, pluralism and sustainability.

The Social economy and social enterprises have proven to be very resilient during the economic and financial crisis in recent years. They have demonstrated an ability to overcome multiple obstacles and to absorb shocks that affect the stability of employment, for instance. The Social economy is therefore a crucial part of the European economic landscape and needs to be part of any European entrepreneurship or job creation agenda.

However not all the members of the European Union have equally implemented the social economy model as a prior direction of their development. First of all it concerns relatively new members of the European Union from the post-Soviet countries and countries of ex-socialistic bloc, such as for example Slovakia which has its own historic background. These countries still have strong State (municipal) sector which aim is to produce basic social services and meet basic social needs. Weak implementation of the Social economy's model concerns both the level of slow legislative approval of the concept of Social economy as a priority direction of development, and weaknesses in the process of creating of the Social economy actors. In addition, due to the absence of universally accepted definition for the term «Social economy», there are certain contradictions in the interpretation of concepts of the Social and Social Market economy which was actually distributed in the ex-socialistic bloc countries and has an important role for all the countries of Europe at the present time as well as the social economy does.

2. Social Economy and Social Market Economy: Concept and Significance for the European Union country-members.

The Social economy is a modern form of economic development which has implemented in all countries members of the EU for more than 15 years. In the EU, there are around 2 million social economy entities, accounting for approximately 10-12% of all European businesses. Traditional social economy entities employed over 14.5 million people, equivalent to 6.5% of the entire EU working population in 2010, up from 11 million and 6.5% in 2002 (Liger, Stefan, Britton, 2016).

The concept of Social economy has an undoubted scientific interest. Social economy is the subject of research by a significant number of European authors, including Carlo Borzaga, Jacques Defourny, Jean-Louis Laville, Carlo Morales, Marthe Nyssens, Roger Spear, and others.

The most complete trends in the Social economy in Europe are covered in the European Commission reports and CIRIEC reports (International Centre of Research and Information on the Public, Social and Cooperative Economy) which is a non-governmental international scientific organization.

In most of the reports it is highlighted that nowadays there is still no clear, precise and unanimously accepted definition for the Social economy because of a multitude of national and regional approaches in EU member countries. However in official Social Europe guide «Social economy and social entrepreneurship» (2013) the next definition for the Social economy is given: «The term «Social Economy» is used to define a specific part of the economy: a set of organisations (historically, grouped into four major categories: cooperatives, mutuals, associations, and, more recently, foundations) that primarily pursue social aims and are characterised by participative governance systems. For close to two centuries, these organisations have engaged in the production of goods and services alongside the Market (i.e. private corporations) and the State (i.e. public sector institutions)» (Andor, Barnier, Tajani, 2013).

The study of the European Parliament on the Social economy (2016) notes that the Social economy consists of private, formally-organised enterprises and networks that operate on the basis of democratic and participatory decision-making processes, producing market and nonmarket goods and services. In Social economy initiatives, the distribution of profits or surpluses amongst members is not directly linked to the capital or the fee contributed by each member, but is directed towards meeting the members' needs, through the production of goods and the provision of services, insurance and finance.

In European Parliament study (2016) it also states that the Social economy is a sector of the market which operates between the public and the private sphere. This sector is made up of private socio-economic initiatives that, regardless of their specific legal status: a) produce goods and services for both market and non-market purposes; b) are based on values of sustainability, solidarity, trust, reciprocity, local development, social cohesion and inclusion; and c) aim at the reinforcement of social cohesion, awareness and citizenship, through internal and external collaboration and collective efforts.

As there is no universal definition for the term «Social economy» and due to the historic past many Russian as well as other western European authors have poor knowledge of interpretations of the concept of Social economy. In the overwhelming number of scientific works there is a confusion of concepts. The Social economy is seen as a process of socialization of the economy. They regard the Social economy and the Social Market economy as synonymous terms. They confirm that the socialization within the global economy, the development of the concept of social responsibility of business and social partnership lies at the basis of the social economy (which is equal to the social market economy). The European reports however assert that although these terms are similar, «Social economy» and «Social market economy» are two completely different

political and economic concepts that were developed in Europe and other parts of world for different purposes. Nevertheless, they both play a decisive role in determining the European socio-economic model.

The term «Social market economy» refers to the political-economic model created after the World War II, in response to the need to spread confidence in the new democratic system. The model was based on the desire to harmonize the principle of freedom in the market with the principle of social security through providing the State with an active role in encouraging both market competition and balanced social development by the implementation of social policy measures aimed at ensuring social justice by adjusting the negative effects of the market and strengthening social protection. This approach was often seen as the «third way» between capitalism based on the principle of minimal state intervention in the economy «laissez faire», and a centrally planned economy in which the state fully controls economic activity.

Many principles of the social market economy have become an essential part of the European social model and found expression in the Treaty on the European Union. So far nowadays the model of Social Market Economy in Europe is changing to the model of Social Economy and they have fundamental differences.

A detailed report on the status and form of the Social economy in the European Union is given in CIRIEC Report by José Luis Monzón and Rafael Chaves (2012). The report describes the historical retrospective of the formation of the Social economy in European countries, assesses the presence of social economic entities in the post World War II period, distinguishes the features of social economic entities formation in the Eastern European countries of the socialist bloc. The report also highlights the current significance of the Social economy for the countries of the European Union.

Monzón and Chaves (2012) note that the term Social economy appeared in economics literature for the first time in 1830. In that year the French liberal economist Charles Dunoyer published a «Treatise on social economy» that advocated a moral approach to economics. Over the 1820-1860 period, a heterogeneous school of thought that can collectively be termed the social economists developed in France. Most of them were influenced by the analyses of T.R. Malthus and S. de Sismondi, regarding both the existence of «market failures» that can lead to imbalances, and the delimitation of the true subject of economics, which Sismondi considered to be man rather than wealth. However, most of the social economists must be placed within the sphere of liberal economic thinking and identified with laissez-faire principles and the institutions that the emerging capitalism was to consolidate, including capitalist companies and markets.

Monzón and Chaves (2012) give the following definition of the Social economy in its modern comprehension: «The set of private, formally-organised enterprises, with autonomy of decision and freedom of membership, created to meet their members' needs through the market by producing goods and providing services, insurance and finance, where decision-making and any distribution of profits or surpluses among the members are not directly linked to the capital or fees contributed by each member, each of whom has one vote, or at all events take place through democratic and participative decision-making processes. The Social economy also includes private, formally organised organisations with autonomy of decision and freedom of membership that produce non-

market services for households and whose surpluses, if any, cannot be appropriated by the economic agents that create, control or finance them».

The Social economy basis is made up of individuals deciding to collaborate on a voluntary, co-operative and reciprocal basis; ownership of the capital does not determine the decision-making process. Monzón and Chaves (2012) also highlight the presence of the non-market sub-sector and market or business sub-sector of the Social economy. The non-market sub-sector of the Social economy consists mainly of associations and foundations, although organisations with other legal forms can also be found. Non-market producers supply the majority of their output free of charge or at prices that are not economically significant.

The market sub-sector of the Social economy is made up of cooperatives and mutual societies; social economy business groups and social enterprises. The last ones are new and the most innovative forms of Social economy entities.

It can be asserted that social enterprise is the social economy operator with the main objective of achieving a social impact rather than generating profits for its owners or members. Social businesses operate in the market to provide goods and services in an entrepreneurial and innovative way. They mainly use their surpluses for social needs and their organisational form is based on democratic or participative principles. A social enterprise must fulfill the following conditions: a) it must engage in an economic activity; b) it must pursue social aims explicitly and as a primary goal; c) it must have limits on the distribution of profits and/or assets; d) it must be independent; and e) it must have inclusive governance.

Despite the considerable interest of the European Commission towards the development of the concept of Social economy, not all countries with equal enthusiasm are implementing this practice. All EU Member countries can be divided into three main groups depending on their level of recognition of the Social economy concept (this division was made in 2012).

The first group of countries represents the highest level of the Social economy acceptance. In these countries numerous initiatives directed to creating Social economy legal frameworks have been undertaken. In Spain, France, Portugal, Belgium, Ireland and Greece, the concept of the Social economy enjoys greatest recognition by public authorities and in the academic and scientific world, as well as in the Social economy sector itself. The first two countries stand out: France is the birthplace of this concept, and Spain approved the first European national law on the Social economy in 2011.

The second group includes countries that have adopted some issues covering the process of creation and development of social economy organisations but who have stopped short of developing a systematic normative approach. In these countries the concept of Social economy enjoys a moderate level of acceptance. Among these countries are Italy, Cyprus, Denmark, Finland, Luxembourg, Sweden, Latvia, Malta, Poland, the United Kingdom, Bulgaria and Iceland. In these countries the concept of Social economy co-exists with other concepts, such as the non-profit sector, the voluntary sector and social enterprises.

The third group of countries with has low level or no legal recognition of the Social economy, stemming from either the low development of the Social economy or the fact

that it is not clearly defined. The related terms non-profit sector, voluntary sector and non-governmental organisation enjoy a relatively greater level of recognition in these countries. The concept of the Social economy is little known, emerging or unknown in the following countries: Austria, the Czech Republic, Estonia, Germany, Hungary, Lithuania, the Netherlands, Slovakia, Romania, Croatia and Slovenia, a group which mainly comprises Germanic countries and those which joined the EU during the last round of enlargement.

It should be noted that the situation in the period 2012-2017 has undergone significant changes in connection with the significant efforts of the EU to implement the principles of the Social economy and its forms in Member countries.

Among other concepts related to the Social economy in some of the European countries can be distinguished the Third sector approach, the Non-profit organisation approach, the Solidary economy approach and the Social enterprises approach.

As far as the Social enterprises approach is concerned, it must be emphasized that the concept of the Social economy is far broader than that of Social enterprise. The Social economy is made up of a wide range of operators and social enterprises are only small part of them.

At the same time, in the works of a number of researchers the concept of the Social economy is being transformed into the concept of the Social and Solidary economy. Solidary economy is a complex of organizational structures and initiatives in which collective principles dominate the principles of individualism. The decision-making process is democratic. The goal of economic activity is to meet the needs of society, for example, in creating jobs, implementing civic initiatives, protecting the environment, the sphere culture and education. At the same time the activities of the Social and Solidary economy organizations can make a profit, but it must be reinvested in accordance with collective interests, i.e. here the logic of the market is subordinated to the logic of solidarity. The solidarity economy is based on the principle of «bottom-up», and its structures are built on the concern for the well-being of people, on the principles of cooperation and solidarity. Logic and motivation in this economy are opposite to the logic of competition and the individualism of the market system.

According to A. Dash (2013), the Social and Solidary economy is not a model of an organization of an economy, but a process of ordering (shaping the structure, configuration) of economic activity (economic organizing).

3. Models and features of Social Economy

The interpretations of the concept of Social economy presuppose the singling out of two alternative models: Emancipative social economy and Integrative social economy (Pavlenko, 2016).

The Emancipative model of the Social economy is based on the importance of the dissemination in the social and economic practice of the principles of solidarity, equality and justice. This model in some of its features goes back to understanding the Social economy as a «third sector» economy. This model in particular is considered by Professor Jacques Defourny. He proposed the following definition of Social economy adopted by the European Social Enterprise Research Network (EMES): «Social economy includes

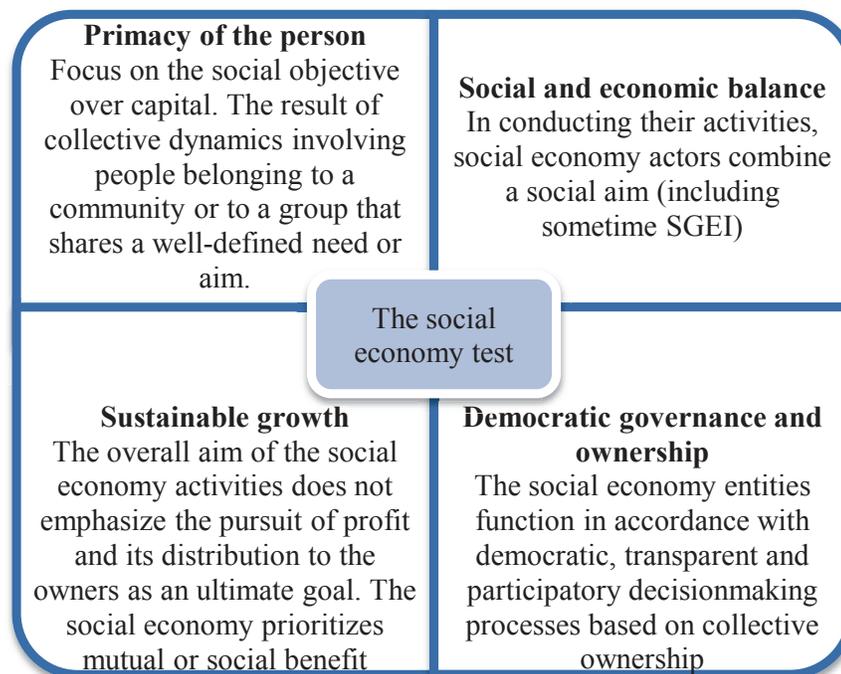
cooperative enterprises, mutual and insurance corporations, foundations and all the other non-profit organisations which hold principles that correspond to the «third sector» of the modern economies» (Defourny, 2014, p. 9). The main economic entities of an emancipative model of the economy are social economy companies which are decentralized independent enterprises, governed by the principles of grass-roots democracy.

CIRIEC (2005) proposes the following definition of the social economy company: «private, formally-organised enterprise, with autonomy of decision and freedom of membership, created to meet its members' needs through the market by producing goods and providing services, insurance and finance, where decision-making and any distribution of profits or surpluses among the members are not directly linked to the capital or fees contributed by each member, each of whom has one vote».

Social economy companies can be established in different forms but all of them have distinctive features which help to identify Social economy actors from other enterprises. These distinctive features include:

- the primacy of the person: the Social economy is based on the primacy of the individual and of social objectives over capital,
- sustainable growth: the overall aim of the Social economy activities does not emphasise the pursuit of profit and its distribution to owners as an ultimate goal,
- social and economic balance: in conducting their activities, Social economy actors focus on social aims, and
- democratic governance and ownership: social economy entities function in accordance with democratic, transparent and participatory decision-making processes (figure 1).

Figure 1. Key features of social economy company



Source: Elaborated by author based on Liger Quentin, Stefan Marco, Britton Jess (2016). Social Economy. Study. European Union.

Main sectors of economic activities of social economy companies are social services (16.70% of all social economy companies), employment and training (14.88%), environment (14.52%), education (14.52%), economic, social and community development (14.34%), culture, the arts and recreation (7.08%), health (6.90%), other 8.35%.

Social economy entities can be divided to the traditional actors of the social economy and new actors. Historically in lots of European countries, social economy organisations have been grouped into four major categories: cooperative enterprises, mutual societies, foundations and associations. The legal form of these organisations may vary considerably from one country to another. These organisations are all committed to promoting social, religious, educational activities or various general-interest activities according to the founder's will.

Cooperative enterprises are «autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise» (International Cooperative Alliance, 1995). This definition was also adopted in the International Labour Organization (ILO) Recommendation 193 of 2002.

Mutual organizations or mutual aid societies can be defined as an association that offers insurance services to the benefit of its members. Mutual aid societies are based upon reciprocal contracts and require that members receive benefits as a consequence of their participation.

An association is a group of people who join together for a particular purpose (cultural, recreational, social, or economic in nature) and give raise to a lasting organization. Associations can be formal, with rules, by-laws and membership requirements, or can be an informal collection of people without a set structure.

Foundations are legal entities created to accomplish specific goals for the benefit of a specific group of people or of the community at large, through the use of an endowment or systematic fundraising. In some instances foundations can take on some other country-specific organisational form (such as charities in the United Kingdom or even religious organisations). Throughout Europe, foundations typically take on one of two roles: in some instances they engage directly in the provision of goods and services, while in others they provide funding for specific categories of people or activities, including the production of specific services. In recent years, there is a surge in the number of foundations that are engaged in the support of social projects and organisations. So these foundations started a process of becoming a strategic philanthropic investor.

Innovative tendencies in the context of the Social economy include the emergence of social enterprises. Despite the lack of a universal definition of the term, in Europe the concept of social enterprise is increasingly used to identify a «different way» of doing business, which occurs when enterprises are created specifically to pursue social goals.

The European Commission gives the term «social enterprise» the following meaning: «an operator in the social economy whose main objective is to have a social impact rather than make a profit for their owners or shareholders. It operates by providing goods and services for the market in an entrepreneurial and innovative fashion and uses its profits primarily to achieve social objectives. It is managed in an open and responsible

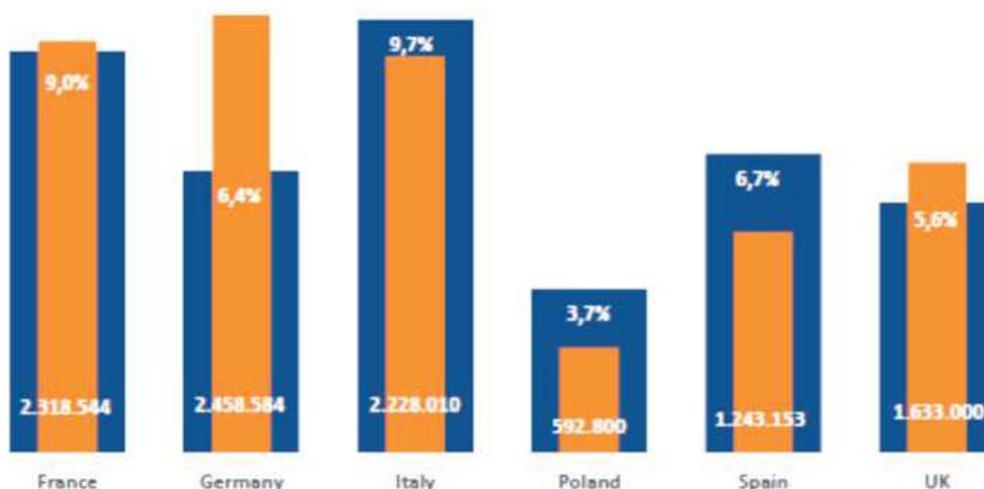
manner and, in particular, involves employees, consumers and stakeholders affected by its commercial activities» (Social Business Initiative, 2011³).

A social enterprise overlaps can be registered as an association, cooperative, charity etc., as a private enterprise, or as one of the specific forms set up in recent years under national legislation. What distinguishes social enterprises from traditional associations or charities is the fact that social enterprises earn a substantial proportion of their income through trading, rather than being dependent on grants or donations.

When compared to traditional social economy organisations, social enterprises may be seen as more oriented towards addressing not only the needs of their owners or members, but also of the entire community (including the needs of the most fragile segments of society). This does not mean, however, that social enterprises only work with the poor or the most vulnerable social groups – rather, they provide a variety of services of general interest, including for instance health care, child care and educational services.

The Integrative model of the social economy presupposes the social integration of both active and passive subjects of economic relations into the social and labor life. The model is also based on the fact that the social exclusion of socially vulnerable groups of the population who's got disadvantages on the labor market and belong to the passive part of the labor potential, threatens the social community, entails social and economic losses, and threatens economic development. Such groups of the population most often include people with disabilities, former prisoners, long-term unemployed, citizens over 50 years of age, migrants, national minorities (for example, in Eastern Europe, gypsies who live on their territory are one of the problematic national groups), young people without a previous one place of work, etc. the social economy entities can provide up to 10% of working population employment (figure 2).

Figure 2. Absolute numbers and share of the working population employed in the Social economy



Source: CIRIEC, 2014

³ Social Business Initiative. Creating a favourable climate for social enterprises, key stakeholders in the social economy and innovation. Brussel, 2011.

Within the framework of the Integrative model of the Social economy the main attention in the countries social policy is paid to the employment policy aimed at providing employment for everyone in the labor market.

Slovakia where the priority in the national model of social policy is paid to the employment of persons disadvantaged in the labor market can be named as an example of the Integrative model of the Social economy. The country provides state support to those actors in the social economy who provide social inclusion and poverty reduction. These actors include different types of organisations, not necessarily legal forms. The most common to Slovak's model of Social economy are:

- WISEs (Work Integration Social Enterprises). WISEs are the labour integration structures, which operate with the objective of (re)introducing disadvantaged (long-term unemployed, ex-prisoners and drug and alcohol abusers) people to the labour market. WISEs can operate under any type of legal form (e.g. cooperative, civic association, limited liability company, public benefit organisation, allowance organisations etc.)⁴.
- Sheltered workshops/sheltered workplace. They also focus on work integration. Yet, unlike social enterprises the target group here is individuals with disabilities. Sheltered workshops can operate under any type of legal form (e.g. cooperative, civic association, limited liability company, public benefit organisation, allowance organisations etc.).
- Municipal social enterprises. They are traditional WISEs established by municipalities. This type reflects the specific situation in Slovakia, which has a rural population and a number of regions suffering from a marked absence of human and social capital, as well as of non-profit organisations or business entities. In such regions municipality is the strongest and most sustainable actor. Municipal social enterprise is not a legal form in itself; it can operate under any type of legal form, quite often the municipality social enterprise is registered as a Ltd company.
- Cooperatives. Whilst most cooperatives are member-oriented, there are a few examples of cooperatives in the field of regional development or entrepreneurship of disadvantaged groups, which can be regarded as social enterprises.
- However the quantity of social enterprises in Slovakia is still low (Table 1)

⁴ European Commission, Directorate-General for Employment, Social Affairs and Inclusion (2016): Mapping study on Social Enterprise Eco-systems – Updated Country report on Slovakia. – 58 p.

Table 1. Estimated scale of social enterprise in Slovakia (2014)

	Registered (2014)	Estimated proportion at least partially meeting EU definition of social enterprise	Estimated number of social enterprises
Social Enterprises	94	100 %	52
Sheltered workshops – form of WISE	2 571	100 %	2 571
Non-profit Organisations	36 601	3 %	1 098
Municipal social enterprises	n/a (20)	n/a	n/a
Cooperatives	1 556	1 %	16
Total	~40 822		~3 737

4. Conclusions

As we finish the second decade of the 21st century, the globalisation of the economy, the low rates of economic growth, the complexity of society, and growing demands for new services are challenging the European model of development. Europe has been updating its social model to respond to the economic crisis and to 21st century challenges, and its business model also needs to be up-to-date. New actors of the economy appear, the activities of traditional actors, for example, funds, undergoes significant changes. Social entities work both in market and non-market sub-sectors and a produce a significant social impact on its employees, consumers and stakeholders.

Despite the efforts of academics, EU institutions, international organisations, national governments and social economy representatives in trying to provide a common analytical framework, a universally accepted definition of the social economy still does not exist. Moreover, the concept of the Social economy is often replaced by others, for example, the Social Market economy. However «Social economy» and «Social market economy» are two completely different political and economic concepts that were developed in Europe and other parts of world for different purposes. Nevertheless, they both play a decisive role in determining the European socio-economic model. It seems appropriate to distinguish the concepts of the Social economy and the Socially-oriented market economy. Understanding by social economy part of the economy associated with the activities of social enterprises, and under the Social market economy as the economic system, the activities of the state, socially responsible business, aimed at addressing market failures.

With the aim of contributing to the common good, the Social economy and social enterprises offer specific tools that can be used to tackle important social challenges. Moreover, they can contribute to reducing the social divide and accelerating innovation while pursuing their overarching objective of providing a service to society. The social economy and social enterprises must become a priority for public authorities at the European, national and local level because they embody the power of change and have the ability to bring people back to the core of the European economy. The social economy, based on participatory organisational forms with the goal of serving the community at large rather than seeking profit, and social enterprises, driven by a commitment to resolve

societal issues rather than make a profit for their owners or stakeholders, shows that it is possible for business interests and social responsibility to converge.

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The Perspectives of Green Economy in the Republic of Moldova under the Impact of Ecologization World Economy Megatrend

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Abstract

The authors have outlined the conceptual methodology in the field as well as the relevant Strategies, Programs and Projects implemented in European Union and Republic of Moldova, and have figured out the key elements as well as the perspectives of green economy development in the country.

Keywords: green economy, ecologization, European Union, Republic of Moldova.

JEL Code: Q01, Q5

1. Introduction

Ecologization as a socio-economic megatrend, based on the sustainable human and socio-economic development concept, is a comparatively “young” and at the same time powerful megatrend, which has broadly been discussing in the context of various management and marketing actual theories and practices. All of its manifestations lead to changing the human lifestyles and socio-economic activities worldwide. The Republic of Moldova is not the exception in this respect. It has undertaken an attempt to elaborate a comprehensive national strategy that includes the aspiration to create a kind of a green economy too (Moldova 2020). In order to make it real, however, it is important to take into consideration both international, especially European, experience and Moldova's specifics.

Purpose of the article is in the outline of conceptual methodology in the field as well as the current situation in this respect in the Republic of Moldova for identifying the perspectives of the green economy development of in the country.

2. Outline of Key Concepts

Megatrend

Megatrends and their influence on socio-economic and business development worldwide have been under active discussion and research since the 1980s. John Naisbitt, who launched the very term in his work “Megatrends: Ten New Directions Transforming Our Lives” in 1982 (Naisbitt, 1982), referred to "megatrends" as the most general and powerful direction which had been producing impact upon the socio-economic

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development of the USA. The American researcher distinguished them as follows: shift from Industrial society to the Informational one; High tech–High touch; transition from National to a World Economy; from Hierarchies to Networking; from Short-Term to Long-Term orientation; from Centralization to Decentralization; from Institutional Help to Self-Help; from Representative Democracy to Participatory Democracy; from Hierarchies to Networking; from North to South of the World Economy, and from Either/or to Multiple Option. Having explored them, he contributed much to understanding of the current world socio-economic systems as well.

Further research and discussion on the subject continued, contributing to highlighting the megatrends' influence on the development of socio-economic and business activity. Thus, the researcher of the Academy of Economic Studies defines a Socio-economic Megatrend as “the most general direction that produces its impact on all socio-economic systems at all levels, shaping a global socio-economic space, and which is acting persistently for centuries, forming a global socio-economic time” (Siscan, Z., 2009). Michael O’Sullivan, the Head of Portfolio Strategy & Thematic Research at Credit Suisse, treats a Megatrend as a profound and long-lasting social and / or economic change that has been spurred by factors such as technological breakthroughs, shifts in the balance of geopolitical power, altering demographic patterns and environmental change” (O’Sullivan, 2013). Credit Suisse expert also highlights that Megatrends are typically long-term in their effect and duration and involve a steep change in the rate of economic growth in a region, or in the rate of revenue growth in a particular industry. Mark Beatson in his report, worked out for a professional HR and people development company CIPD, puts an accent on megatrends as “trends shaping work and working lives”, and emphasizes that “they have been setting the benchmark for excellence in people and organization development more than 100 years” (Beatson, 2013). The Megatrends are also seen as “major shifts in economic, social and environmental conditions which change societies and substantially impact people at all levels” (World Economic and Social Survey, 2013). Frost & Sullivan view Megatrends as “transformative, global forces that define the future world with their far reaching impacts on businesses, societies, economies, cultures, and personal lives” (Frost & Sullivan, 2014). A Megatrend is also “a large, social, economic, political, environmental or technological change that is slow to form”. The Glossary of Terms developed by the Forward Thinking Platform treats it as “a major trend, at global or large scale” (Glossary of Terms, 2014). The author of the “Leadership 2030: The Six Megatrends You Need to Understand to Lead Your Company into the Future” interprets it as a “long-term, transformational process with global reach, broad scope, and a fundamental and dramatic impact” (Vielmetter, 2014). The expert of Ernst and Young, Uschi Schreiber, in his research suggests the definition of the Megatrends as “large, transformative global forces that impact everyone on the planet” (Schreiber, 2015).

Among the most discussed megatrends are as follows: globalization (global marketplace), informatization and technological advance (digital future, bio- and nanotechnologies), ecologization, urbanization, socialization (network organizing), demographic change (ageing), health (reimagined). For the given research outline the **ecologization** megatrend that paves the way for the appearance and the development of a green economy is of special attention.

Ecologization

Ecologization can be defined as an approach or way of understanding a wide variety of social and economic activities that from the start take into account environmental impacts and preservation (Demko J., 1989). Ecologization is directly linked with another concept, the one of sustainable human development, which highlights the necessity to optimize the profit in a way that would ensure a proper use of the resources to give the opportunity to future generations to benefit from them too (Banuri et al., 1994). Among the ways through which Ecologization can be reflected on are the following ones: increasing attention to organic agriculture and food security issues; search for alternative energy resources, including renewable ones; revision of legislation in favour of environmental protection; social and economic responses to Global Climate Change; strategic programs for green economy/green entrepreneurship; development of eco-projects as part of the Corporate Social Responsibility (CSR) concept as well as compensation and recycling policies; development of eco-tourism (Siscan, 2015).

Green economy

The ecologization megatrend has become a base and the context for the Green Economy concept. It dates back to 1992 when the Declaration of Rio de Janeiro on Environment and Development was adopted which in turn included a program and a plan of action for sustainable development in the 21st century as well as envisioned achieving two main objectives, i.e. high-quality environment and a healthy economy for all the peoples of the world. According to the definition of Green Economy elaborated by the United Nations Environment Programme (UNEP) it represents “a system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks and ecological scarcities” (Demuth, 2014). The Organization for Economic Cooperation and Development (OECD) posits green economy as the economic development model based on sustainable development and knowledge economy environment. The notion of green economy is the part of the concept of sustainability, emphasizing the importance of taking into account the interactions between the economy, society and the environment. European Environment Agency defines a “green economy” as the one in which policies and innovations enable society to use resources efficiently, enhancing human well-being in an inclusive manner, while maintaining the natural systems that sustain the humanity, people all over the world (EEA, 2016).

The definitions of Green Economy developed by different international organizations generally highlight such objectives as improving resource-use efficiency (e.g. use of energy, water and other material inputs); ensuring ecosystem resilience (protecting the natural environment, its ecosystems' structures and flows of ecosystem services), and enhancing social equity (promoting human well-being). Under the condition of global world market development, we emphasize the fact that green entrepreneurship is an essential component of green economy as a concept and as a reality.

Green entrepreneurship

The term “green entrepreneurship” stems from Berle's 1991's work (Berle, 1991) and derives from the combination of the main characteristics of the entrepreneurship itself – innovation, risk, a brand new business idea, and the ecological and social engagement of those who do business (Gevrenova, 2015). Definitions of “green entrepreneurship” vary, being generally associated with “green” (Berle, 1991), “eco entrepreneurship” (Schaper, 2002) and “sustainopreneurship” (Dean & McMullen, 2007). Arun Sehgal, Managing Director CHEMPRO Group, commented on Green Entrepreneurship as an entrepreneurial journey to optimize the returns on economic, social and environmental capital invested (Sehgal, 2016). According to the GREENT project implementors, “green entrepreneurship is the activity of consciously addressing an environmental/social problem/need through the realization of entrepreneurial ideas with a high level of risk, which has a net positive effect on the natural environment and, at the same time, is financially sustainable” (GREENT Project, 2012).

3. The priorities of the European Union under the Ecologization Impact

Ecologization trend relates to the vision, main goals, objectives, targets, and reports on those plans implementation. At the state level it can be tracked in the country strategy (-ies), action plans, whitepapers as well as intermediary and final reports on their implementation. Such large-scale documents highlight the importance of the country's (a group of countries') transition to green economy and outline particular steps/measures to be taken during a certain period.

Having proceeded from the fact that the Republic of Moldova is on its way of the integration into the European Union (in 2014 the Association Agreement was signed), it is strategically significant to reveal the priorities of the European Union under Ecologization megatrend as far as the Strategies of the Republic of Moldova are elaborated in correlation with them. Among such type of documents that are under implementation, the Europe 2020 Strategy is the key one. The Europe 2020 is a strategy for smart, sustainable and inclusive growth. It highlights three main priorities: smart growth (developing an economy based on knowledge and innovation), sustainable growth (promoting a more resource efficient, greener and more competitive economy), and inclusive growth (fostering a high-employment economy delivering economic, social and territorial cohesion) (Europe 2020 Strategy, 2010). The strategy focuses on five ambitious goals in the areas of employment, innovation, education, poverty reduction and climate/energy. The targets of the EU by 2020 include, among others, the following ones: climate change and energy sustainability, 20% greenhouse gas emissions reduction, 20% of energy from renewables, and 20% increase in energy efficiency. Another important paper in this respect is “Towards a Green Economy in Europe: EU Environmental Policy Targets and Objectives 2010-2050” study, which provides the details on the current situation in EU states, the vision for development and the targets in the area till 2050 (EEA, 2013). The outline of the EU-funded projects in the area of heating and cooling (Arla Fytrou-Moschopoulou, 2016) allow understanding of energy efficiency and renewable energy priorities in EU. In the very context, the Horizon 2020 Programme for research and innovation (2014-2020) and Intelligent Energy Europe (IEE) Programmes

have to be mentioned as well. The 2030 Framework for climate and energy covers the EU-wide targets and policy objectives for the period of 2020-2030 that aim to help the EU to achieve a more competitive sustainable energy system and to meet its long-term 2050 greenhouse gas reductions target. Besides, the targets for 2030 are as follows: a 40% cut in greenhouse gas emissions compared to 1990 levels, at least a 27% share of renewable energy consumption, and about 27% energy savings compared with the business-as-usual scenario (The 2030 Climate and Energy Framework). Innovation is paid particular attention in the Europe 2020 strategy as the best means of successful dealing with the main challenges that a modern society faces with such as health and ageing, energy and resource scarcity, climate change etc. In this respect, the “Europe 2020 Flagship Initiative Innovation Union” paper is worth considering too.

4. The Elements of Green Economy in the Republic of Moldova

The efforts aimed at taking effective measures to transit to a green economy as applied to the Republic of Moldova base on a number of state level strategies, action plans, and whitepapers. They are developed in cooperation with and on the basis of technical and consultancy support of the international community/donors (EU leading them). Among the nationwide documents in the field, one may refer to the following ones as those of strategic importance. Moldova 2020 Strategy, Environmental Strategy For The Years 2014-2023; Small and Medium Enterprise Sector Development Strategy for 2012-2020; Innovational Strategy of the Republic of Moldova for 2013-2020 “Innovations for Competitiveness”; the National Programme for Energy Efficiency 2011-2020; National Strategy on Agriculture and Rural Development for the Period 2014-2020; the National Action Plans in Energy Efficiency and Renewables areas for 2013-2020. Eco-Labeling of the Priority Groups – PVC Sustainable Windows and Doors and Organic Fruits and Vegetables takes part of the Programming of the European Neighbourhood Instrument (ENI) – 2014-2020 is of a Single Support Framework for EU support to the Republic of Moldova (2014-2017). The Council of Europe Action Plan for the country for the period of 2017-2020 is one of such documents, which contribute to bringing Moldovan legislation, public and private sectors players' actions in line with European standards.

The Republic of Moldova is rather active in its response to Ecologization realia, its actions being widely supported by the European Union initiatives, including the long-term projects, technical assistance programs, grants as well as by other donors (UNDP, USAID etc.). The numbers of the programs and projects funded by international donor entities, and mostly by the European Union, in the Republic of Moldova are impressive. The selected list of them includes the following projects. Moldovan Residential Energy Efficiency Financing Facility (MoREEFF), which provides assistance in the Housing policy and administrative management sector (2011-2018). Budget support program in the energy sector (2012-2017), supports the Government of Moldova in implementing reforms in the energy sector, with a particular focus on security of supply, energy efficiency and renewable energy. AT-SPSP Energy Project (2012-2017) in support for the energy sector reform. Ungheni-Chisinau Natural Gas Pipeline construction related project for 2012-2019. ESCO Moldova – Transforming the market for Urban Energy Efficiency in Moldova by introducing Energy Service Companies (2015-2018). EU Program

“Competitiveness of Enterprises and SMEs” (COSME), 2014-2020. The project on Interconnection of power systems of Moldova and Ukraine to the European network of electro energetic operators (2013-2016). Rehabilitation of the water supply system in the Municipality of Nisporeni, Republic of Moldova (2010-2016), implemented in water supply and sanitation systems sector. Sustainable Urban Demonstration Projects (SUDeP), 2014-2018. Food Safety programs by GIZ and others.

There are numbers of projects that contribute to Ecologization related issues solution, funded by non-EU international donors in cooperation with the EU ones. Moldova Energy and Biomass Project (2011-2017), funded by UNDP and EU. Agricultural Competitiveness and Enterprise Development Project (ACED), 2011-2016, funded by U.S. Agency for International Development (USAID). The EaP Green Programme, financially supported by the European Union and other bilateral donors, and is jointly implemented by four international organizations, i.e. OECD, UNECE, UN Environment, and UNIDO. The UNDP/GEF project “Strengthening capacities to undertake the environmental fiscal reform to meet national and global priorities”, implemented by UNDP and the Ministry of Environment of the Republic of Moldova, and funded by the Global Environmental Facility (GEF). The Program on Sustainable Green Cities – Catalyzing Investment in Sustainable Green Cities in the Republic of Moldova Using a Holistic Integrated Urban Planning Approach, funded by the UNDP, approved for implementation in July 2017, which will catalyze investments in low carbon green urban development.

As it is seen from the brief outline exposed above, the main sectors of green economy, which are in active current development in the Republic of Moldova, are the energetic sector and the agricultural one. In the energetic sector, the focus is on the bioenergy issues. The renewable energy resources are also in agenda. In agricultural sector, the accent is put on eco-agro-food industry, the latter being regulated by the Law No. 115 (09.06.2005). These sectors may be considered as those of real perspective as they benefit from the most of investment in green economy projects. Such sector as eco-tourism, however, is of vague perspective, because it is just mentioned in the Strategy for Tourism Development in Republic of Moldova “Tourism – 2020” as domain of future priority (Platon, 2014) but neither the specific strategy nor the financial instrument has been initiated to make it real.

Having referred to such a component of green economy as green entrepreneurship, one may argue that its perspective is the same unclear, although it is possible to register some advance in its institutional framework development. Thus, for instance, due to the Eastern Partnership Green Programme, the situation on SMEs in a green economy that is developing in Eastern partner countries has been studied. As an outcome, it has been revealed that „most countries have environmental policies for SMEs included in government strategies (commonly referred to as „green economy strategies’). They are accompanied by action plans in Armenia and Moldova. Such strategies generally promote resource-efficient and cleaner production as well as eco-innovation and green products but nowhere do they set measurable targets and timeframes for their achievement” (OECD/European Union/EBRD/ETF, 2015, p.189). In the Report it has also been mentioned that the implementation of those policies “almost fully relies on donor funding,

with only a small contribution of budgetary resources...Financial incentives in Armenia, Georgia and Moldova are in the early stages of development and are limited to certain tax privileges and access to finance at below-market interest rates. There is a big gap in providing SMEs with sector-specific guidance on environmental compliance and green business practices” (ibid.). At the same time, one may register a certain dedication of Moldovan government to green economy, including green entrepreneurship, development. As it is emphasized in the same Report, “the government is currently in the process of revising several strategic documents to introduce instruments to facilitate the transition to a green economy. The “SME Sector Development Strategy for 2012-2020” and its 2015-17 action plan are being complemented by actions to promote the greening of SMEs” (OECD/European Union/EBRD/ETF, 2015, p.318; Moldova 2020).

5. Conclusion

Given the importance of the already accumulated experience in the European green economy strategic development and, at the same time, taking into account the specifics of Moldova, an extensive research should be done in order to analyze and identify the clear perspectives as well as eventually realize the potential of green economy development in the Republic of Moldova. It is also necessary to reveal those kinds/types of green entrepreneurship that worth the most to be applied in Moldova, leaning on the best national and international practices highlighted in the related research papers and practices as well as taking advantage of the local peculiarities. This will contribute to the elaboration of realistic suggestions for the future specialized country strategy in the field.

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The Evolution of the Research - Development Services at the Regional Level in Romania

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Abstract

Research and Development services are the first of the services that support the process of innovation, innovation, and eco-innovation, with a special attention from developing countries that invest a significant percentage of GDP in these type of services. Studying the evolution of R & D services in the territorial profile is a major issue in the current context because these services are the first step in any stage of innovation, development, competitiveness, raising the standard of living of the population, increasing the economic well-being and social issues of a country. The purpose of this paper is to review the literature in the field and to analyze the evolution of the main relevant indicators in describing the level at which R & D services in Romania, and at the regional level, indicators for which there are publicly available statistical data in the official databases. The study, based on fundamental research in the field and the results of numerous bibliographic sources on this topic, uses specific statistical methods of territorial analysis. The obtained results outline an overview of the research and development services in Romania, but also at the level of the NUTS2 regions highlighting the gaps between them.

Keywords: services, R&D, expenditure, researchers, regions, territorial analysis

1. Introduction

Scientific research contributes both quantitatively and especially qualitatively to the social and economic development of a country. In a globalized world based on knowledge, research and education are the main drivers of the country's competitiveness. Not by chance, the most developed countries in the world attach great importance to research. (David, 2016)

In his paper 'The Scientific Research in Romania, between to be or not to be', Țopa considers almost unanimous was accepted the statement: "In the near future, determinants as training, training and professionalism of the citizens of a country, or their ability to create, discover and develop will be increasingly used in dividing the countries into: rich and poor, strong and weak rather than the natural resources, the size of the territory or the size of the population". At the 'National Forum on Strategies and Policies in Scientific Research in Romania', in the year 1999, the Academician I. Haiduc, Vice-President of the Romanian Academy, attracted attention in his speech titled 'Romanian Academy in the Perspective of 21st Century Science' about the situation of the Romanian science. He

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emphasized that "the scientific research is of vital importance for the future development of the country and spending on science is not a subsidy, but an investment. Romania has to decide, what and how much research it can sustain." In the same forum, Professor A. Marga accented that "all countries are undertaking reforms of scientific research and even reforms in the context of reforms already made and that educational reform and scientific research reform are of crucial importance, and they are best suited to reducing the distances and compressing the time" (cited by Țopa, 2005, p. 3). Research means: learning and knowledge, and knowing is the key to open the door to the future, it is our value. Scientific research is where questions are asked and answers are sought for the most difficult and important issues in science and technology, with a direct impact on human well-being in the medium and long-term. The discoveries and scientific inventions play a crucial role in improving the quality of life in all aspects, from medicine to entertainment. They also secure the future of the seven billion people sharing the same planet, with limited resources (Leordeanu, 2013).

As far as the financing of the R&D activity in Romania is concerned, we also notice very large discrepancies, and the failure to meet our own commitments towards the EU on different occasions as long as, at the level of the year 2015, 0.39% of GDP was allocated for research and development compared to the 3% commitment for 2010. Therefore, the allocated financial resources were less than ten times that were had committed to the EU for 2015, or even those were allocated in the year 1989. (Millea, 2017, p. 288) Moreover, the Research in Romania is not only the country with the lowest-funded per capita from the EU countries: the level of funding declined in real terms, year on year, in contrast to the sustained increases of these levels for the other new EU states member. Although the allocations for the year 2016 were 33% higher than those for 2015, allowing for the finished of old, postponed contracts, and the launch of new competitions, the Ministry of Finance's projections are negative, with the 2016 State Budget Law anticipating the gradual reduction of research spending in the coming years. Convergence with the EU average, formally set as a general objective of the RDI National Strategy 2014-2020, seems, in these circumstances, to be an increasingly remote issue, which could be envisaged - at least theoretically - only in a longer-term project. (Corlan, David, and Frangopol, 2016, p.86) In this context, we present the targets of the National Strategy for RDI 2014 – 2020, which were established based on the convergence of Romania with the EU average. Challenging but realistic, the targets below are based on the assumption that by 2020 public spending on research will gradually increase to 1% of GDP, plus fiscal facilities - indirect aid - for private firms.

Table 1. The objectives of the National RDI Strategy 2014 - 2020

Premise	Last value	Target 2017	Target 2020
Public expenditure on R & D (% of GDP)	0,31%	0,63%	1%
Number of PhD graduates (ISCED 6) per 1,000 inhabitants aged 25-34	1,4	1,5	1,5
Number of researchers in the public sector (full-time equivalent)	12.409	15.000	17.000
Scientific publications in the top 10% of the most cited publications in the world (% of total scientific publications in the country)	3,8	5	7
International scientific co-publications to 1 million inhabitants	148	200	300

Source: https://www.edu.ro/sites/default/files/_fi%C8%99iere/Minister/2016/strategii/strategia-cdi-2020_-proiect-hg.pdf

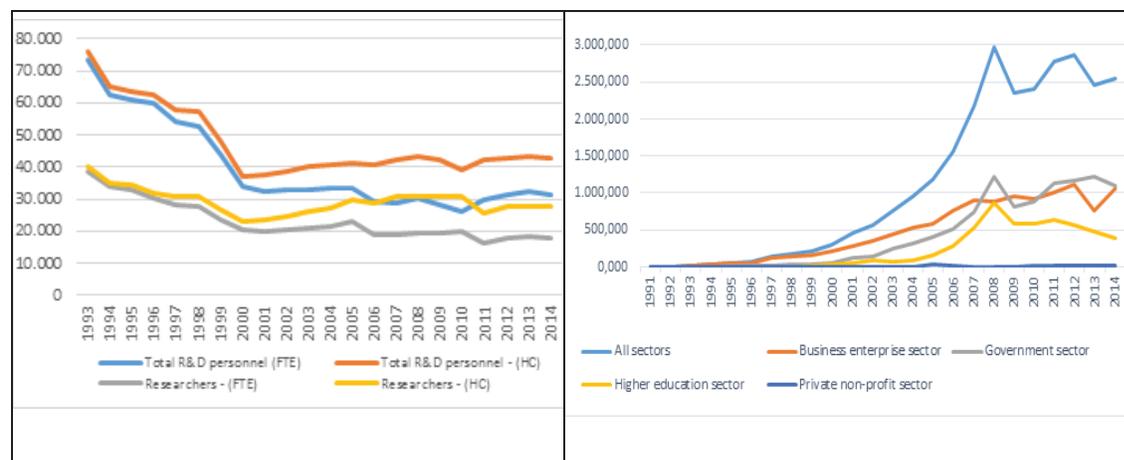
These targets are also set against the backdrop of excessive fragmentation of the national RDI system that has led to the dissipation of the critical mass needed for high-quality research work, with greater applicability in the industry and the economy. The economy relies on innovation as the dominant source of competitive advantage, i.e. on the ability to deliver innovative products and services at the highest global technology level, using the most advanced methods. Research and development have been considered either as an initiator or as a decisive factor in the innovation process. (Vişan and Botez, 2012). The low intensity of national research within the units and a low interest for research and development from the private sector, dominated by foreign companies, for using the results provided by national research institutions - especially public ones - are other issues that characterize the RDI sector. Therefore, the innovative businesses search for other sources of knowledge. In addition, the lack of incentives to increase demand for Romanian research results, in the context of deindustrialization and domination of foreign capital, makes uninteresting research within the branches in Romania. The relationships between science providers and users are still low, as suggested by the small number of public-private co-publications. Taking into account the lack of public policies for eliminating the above-mentioned disadvantages oriented, there will also be an acute imbalance, with a negative impact on the Romanian research and development potential. (Sandu S., 2013)

2. The evolution of the R&D services in Romania

Before the 1989 revolution, Romania had a functional research infrastructure, with research centers developed in the important university cities, to supporting the industry especially. After the year 1990, affected by the Romanian industry privatizations, most of this research centers were disintegrate, following the loss in state funding and an investor interest, which implicitly led to the dismissal of the research staff. Major negative effects had also the free circulation in Europe since 2001, the migration of brains as Romania joined the EU, the effects of the 2008 crisis. (See Figure 1, a) Only in the last years, in Romania, some important companies have organized R&D centers, at their own level or in partnership with universities. As regards the R&D expenditure, after a period when

development research activities did not represent a priority for the Romanian economy and society since 2000's years can note significantly increase of the volume of total expenditures with research development. Another significant increase being registered starting with 2006 when Romania was preparing to join the EU. Recording a peak in 2008, the economic boom year, after which the economic crisis spoke its word, reducing the pace of spending on total, but also on each sector. (See Figure 1, b) Some positive effects could have at the same time, the increased funds from foreign sources founded in the Structural Funds. Even so, "the shy increase in R&D developments in the private sector has been affected by a severe talent shortage, as numerous young researchers prefer the option of working abroad - statistically, Romanian researchers have one of the lowest income levels in the EU". (Buciuman, Tapai, and Grigore, 2017, p.1).

Figure 1. Evolution of the Romanian R&D sector since 90's years



a) Total R&D personnel and researchers b) Total intramural R&D expenditure (GERD) by sectors of performance (Million Euro)

Source: Elaborated by author based on Eurostat database, [rd_e_gerdreg] and [rd_p_persocc], [visited on 15.08.2017]

The table 2 shows the evolution of the number of R&D units by performance sector starting with 2011, the year when were repositioned in public or private sectors. There is a continuous decline in the number of research units. This was an alarm signal. Considered as the main activities for a country development, the Romanian government initiated recently a number of facilities to stimulate the sector, like labor incentives, fiscal incentives, reinvested profit, and state aid for R&D or intellectual property. Noteworthy that private sector gains strength at the expense of the public sector accounting for over 60% of units. Growth tendencies appear in the government sector and the non-profit private sector, too. Slowly increases recorded the public sector, both in the governmental and university sectors. The nonprofit sector is courageous; the number of units here is steadily rising even if they are still insufficient, these being those units that can contribute disinterestedly to the development of an innovative and sustainable economy. Nevertheless, business enterprise sector has a great problem.

Table 2. Number of R & D units by performance sector, at the end of the year

Performance sector:	2011	2012	2013	2014
Total, of which:	1166	970	920	773
Public Sector	268	269	273	286
- Government sector	177	174	186	192
- Higher education sector	91	95	87	94
Private Sector	898	701	647	487
- Business enterprise sector	884	683	623	460
- Private non-profit sector	14	18	24	27

Source: <http://statistici.insse.ro/shop/index.jsp?page=tempo3&lang=ro&ind=CDP101B> [visited on 15.08.2017]

For a better picture of the dynamics of R&D activities from the perspective of human and financial resources in Romania in post-EU accession period, note the data in Table 3. Romania's total expenditures on R&D recorded the highest value in the year 2008, the year corresponding to the "economic boom" recovered in the analyzed field and the lowest value in the year 2009, the year when Romanian economy felt the economic crisis. The average annual value in the analyzed period was 628,20 million euros. Compared to GDP, spending on research development peaked in 2008 and a minimum in 2014, the year in which state budget resources were directed to other sectors considered more productive.

It is a certitude R&D services should also enjoy in Romania a special attention as it happens from developed countries that invest a significant percentage of GDP in these services. According to the European Statistics Office, Eurostat, Romania was in the year 2014 in the last place in the European Union regarding the share of spending on research and development in GDP, with only 0,38%, values below 1% being recorded in countries like Greece, Bulgaria, and Poland. Given that the 2020 target of R&D expenditure under the strategy is 1%, we find that 0.38% in 2014 is still far away, the effort that the state has to make in this respect is considerable.

The changes in the structure of the total intramural R&D expenditure by sources of funds emphasizes that in the year 2007 the most important shares come from the government sector 67,1 % and business enterprise sector, 26,9 %, but only 4,5 % from the abroad, 1,4% from higher education, and no funds from non-private sector. In the year 2014, government funds were only 48 % followed by the business sector with 32,9 %, only 0,1 % from the non-profit sector, but a higher share from abroad 17 %. (See Table 4)

Table 3. Evolution of the human and financial resources in Romanian R&D services in the post-EU accession period

Year	Total intramural R&D expenditure (GERD)			Total R&D personnel and researchers							
				Full-time equivalent (FTE)		% of total employment - numerator in (FTE)		Head count (HC)		% of total employment - numerator in (HC)	
	Million Euro	Euro per inhabitant	% of GDP	Total personnel	Researchers	Total personnel	Researchers	Total personnel	Researchers	Total personnel	Researchers
2007	652,815	30,9	0,52	28.977	18.808	0,3277	0,2127	42.484	30.740	0,4805	0,3477
2008	809,401	39,2	0,57	30.390	19.394	0,3422	0,2184	43.502	30.864	0,4898	0,3475
2009	555,887	27,2	0,46	28.398	19.271	0,3225	0,2189	42.420	30.645	0,4818	0,3480
2010	572,971	28,2	0,45	26.171	19.780	0,315	0,2381	39.065	30.707	0,4703	0,3697
2011	657,411	32,5	0,49	29.749	16.080	0,3655	0,1976	42.363	25.489	0,5205	0,3132
2012	644,211	32,1	0,48	31.135	18.016	0,3787	0,2191	42.674	27.838	0,5190	0,3386
2013	557,769	27,9	0,39	32.507	18.576	0,3974	0,2271	43.375	27.600	0,5303	0,3374
2014	575,120	28,8	0,38	31.391	18.109	0,3803	0,2194	42.963	27.535	0,5205	0,3336
max	809,401	39,2	0,57	32507	19780	0,3974	0,2381	43502	30864	0,5303	0,3697
min	555,887	27,2	0,38	26171	16080	0,315	0,1976	39065	25489	0,4703	0,3132
\bar{x}	628,198	30,85	0,47	29839,75	18504,25	0,35	0,22	42355,75	28927,25	0,50	0,34
$\bar{\Delta}$	-11,10	-0,30	-0,02	344,86	-99,86	0,01	0,00	68,43	457,86	0,01	0,00
\bar{I}	0,98	0,99	0,96	1,011	0,995	1,021	1,004	1,002	0,984	1,011	0,994
\bar{R}	-0,02	-0,01	0,04	0,011	-0,005	0,021	0,004	0,002	-0,016	0,011	-0,006

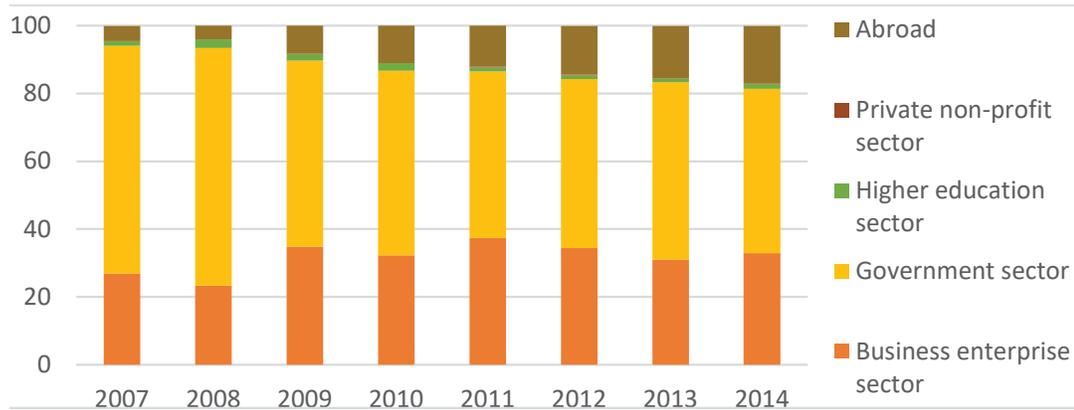
Source: Calculated by the authors based on Eurostat database [rd_e_gerdreg] and [rd_p_persreg], [visited on 15.08.2017]

Table 4. Evolution of the total intramural R&D expenditure GERD by source of funds (%)

Year	Business enterprise sector	Government sector	Higher education sector	Private non-profit sector	Abroad
2007	26,9	67,1	1,4	0	4,5
2008	23,3	70,1	2,6	0	4
2009	34,8	54,9	1,9	0,1	8,3
2010	32,3	54,4	2,2	0	11,1
2011	37,4	49,1	1,2	0,2	12,1
2012	34,4	49,9	1	0,2	14,4
2013	31	52,3	1,1	0	15,5
2014	32,9	48,5	1,4	0,1	17

Source: Eurostat database: [rd_e_fundgerd] [visited on 15.08.2017]

The structure of R & D funds sources have changed over the review period. The research in Romania becoming able to attract more and more funds from abroad, as shown in figure 2.

Figure 2. Total intramural R&D expenditure GERD by source of funds (%)

Source: Elaborated by authors based on Eurostat database: [rd_e_fundgerd] [visited on 15.08.2017]

3. Evolution of the R&D services at the Regional Level in Romania

As the national stage of R&D sector, the territorial component of the national R&D sector is still underdeveloped, and more than that there are significant disparities between Romanian regions. Major technological disparities among Romanian regions and counties have been recognized as a constraint in building an efficient national innovation system. It is still lacking a strong regional R&D policy to address such disparities (Goschin, Sandu, and Goschin, 2016, p.2).

Such disparities regard both the human and financial resources in Romanian R&D services have been maintained throughout all the post-EU accession period, at the level of the eighth Romania's NUTS 2 regions, too.

Two important indicators, which describe the level of regional R&D services

development, from the perspective of resources, were considered:

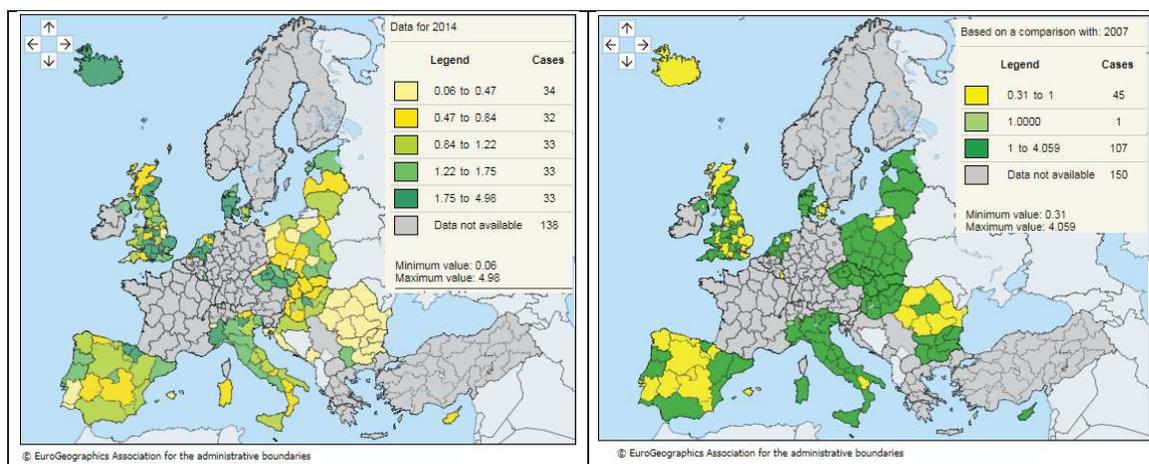
- *IND_1 - Total intramural R&D expenditure (GERD)*, as percentage of GDP – named "R intensity" by NUTS 2 regions. R (expenditures as a percentage of GDP) is an indicator of high political importance at the EU, national and regional levels;
- *IND_2 - R&D Researchers*, as percentage of total employment by NUTS 2 regions. As the Eurostat definition: "Researchers are professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems and also in the management of the projects concerned". (The measure shown in the table is researchers in full-time equivalents divided by the total annual average employed population).

A global picture of Romania's R&D sector changes at the regional level over the period 2007-2014, compared to the other NUTS2 regions of the EU in terms of the two indicators considered can be made using Eurostat's online map tools.

Although at the level of all the development regions, NUTS 2, Romania was in 2014 in the group of the weakest countries in the European Union, in terms of both R intensity, but also the number of researchers in terms of the total number of employees, development at the regional level I highlight the major differences between them.

If with regard to R intensity, the only region that succeeded in 2014 in comparison to 2007 to being placed in the group of the 107 regions in Europe with the highest growth is the Centru Region; all the others were still part of the group of the 45 regions with the weakest development. (See Figure 3)

Figure 3. Total intramural R&D expenditure (GERD) by NUTS 2 Regions, % of GDP



a) year 2014

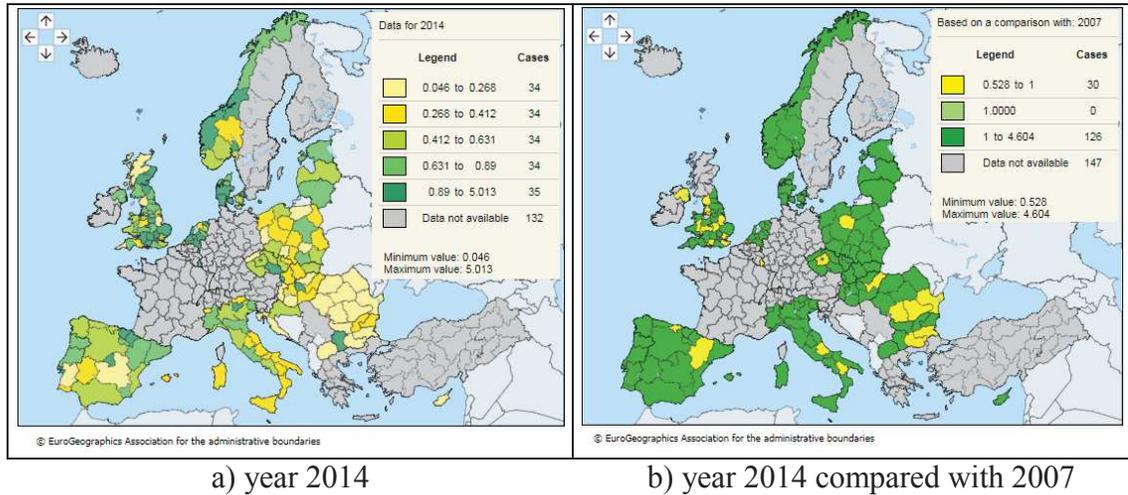
b) year 2014 compared with 2007

Source: <http://ec.europa.eu/eurostat/tgm/mapToolClosed.do?tab=map&init=1&plugin=1&language=en&pcode=tgs00042&toolbox=types>, [visited on 15.08.2017]

Regarding changes in the structure of the number of researchers relative to the employed population of the region, the regions Vest, Center, Nord, and Nord-Est recorded the highest increases, similar to the group of the most performing regions. In the same

time, regions Sud-Vest Oltenia, Sud-Muntenia, București-Ilfov, and Sud-Est are in the last class, similar to other NUTS 2 regions in the EU with the weakest evolution. (Figure 4)

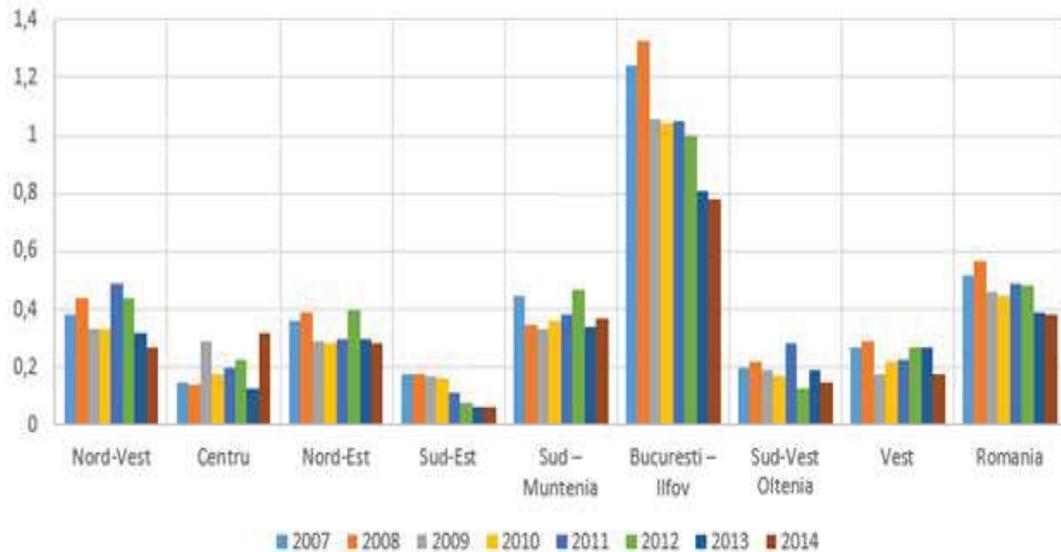
Figure 4. Researchers, all sectors by NUTS 2 regions, % of total employment



Source: <http://ec.europa.eu/eurostat/tgm/mapToolClosed.do?tab=map&init=1&plugin=1&language=en&pcode=tgs00043&toolbox=types>, [visited on 15.08.2017]

Data confirm the "best performances", well above the national average, during the entire considered period for București-Ilfov Region, which includes the capital of Romania, for both indicators, but in an accentuated decline. On the other hand, the Sud-Est Region has the worst performance, with a steady evolution on the share of researchers in total employees, but on a constant decline over the whole period with respect to R intensity. (See Figure 5 and 6)

Figure 5. Evolution of R intensity by NUTS 2 Regions, % of GDP



Source: Elaborated by the authors based on Eurostat database [rd_e_gerdreg], [visited on 15.08.2017]

To compare the evolution of the two main indicators in the period considered for the eight Romania's NUTS2 regions, we considered data from the table below.

Table 5. R&D expenditure (GERD) and R&D Researchers by NUTS 2 regions

NUTS2 Region	Indicat or (%)	Year								Changes 2014/2007	
		2007	2008	2009	2010	2011	2012	2013	2014	\bar{I} (%)	\bar{R} (%)
Nord-Vest	IND_1	0,38	0,44	0,33	0,33	0,49	0,44	0,32	0,27	95,24	-4,76
	IND_2	0,2023	0,2469	0,2602	0,2622	0,2193	0,2008	0,1696	0,1948	96,29	-3,71
Centru	IND_1	0,15	0,14	0,29	0,18	0,2	0,23	0,13	0,32	111,43	11,43
	IND_2	0,2242	0,2437	0,2833	0,3183	0,2343	0,2094	0,1823	0,2072	92,42	-7,58
Nord-Est	IND_1	0,36	0,39	0,29	0,28	0,3	0,4	0,3	0,28	96,47	-3,53
	IND_2	0,1928	0,2024	0,1947	0,1957	0,2105	0,2145	0,2201	0,2155	111,77	11,77
Sud-Est	IND_1	0,18	0,18	0,17	0,16	0,11	0,08	0,06	0,06	85,48	-14,52
	IND_2	0,1538	0,1096	0,116	0,1263	0,1102	0,1133	0,1119	0,128	83,22	-16,78
Sud – Muntenia	IND_1	0,45	0,35	0,33	0,36	0,38	0,47	0,34	0,37	97,24	-2,76
	IND_2	0,1855	0,1901	0,1641	0,1709	0,1056	0,1422	0,1821	0,1635	88,14	-11,86
Bucuresti – Ilfov	IND_1	1,24	1,33	1,06	1,04	1,05	1	0,81	0,78	93,59	-6,41
	IND_2	1,4103	1,3897	1,2866	1,2418	1,061	1,2383	1,2171	1,1741	83,25	-16,75
Sud-Vest Oltenia	IND_1	0,2	0,22	0,19	0,17	0,28	0,13	0,19	0,15	95,97	-4,03
	IND_2	0,2116	0,1992	0,2018	0,2253	0,1797	0,1702	0,1796	0,1771	83,70	-16,30
Vest	IND_1	0,27	0,29	0,18	0,22	0,23	0,27	0,27	0,18	94,37	-5,63
	IND_2	0,2223	0,2032	0,3104	0,3843	0,302	0,3572	0,3842	0,3424	154,03	54,03
Romania	IND_1	0,52	0,57	0,46	0,45	0,49	0,48	0,39	0,38	95,62	-4,38
	IND_2	0,3477	0,3475	0,348	0,3697	0,3132	0,3386	0,3374	0,3336	95,94	-4,06

Source: Based on Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=rd_e_gerdreg&lang=en and http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=rd_p_persreg&lang=en, [visited on 15.08.2017]

It should note that the Bucharest-Ilfov region is well above the national average level, while all other regions are below the average level for IND_1, R intensity. The only region that has seen an increasing trend over the period is the Centru Region. (See Figure 5) Even if București-Ilfov decreased its R intensity evolution during the considered period, it remained the "best performer".

To describe differences in the territorial evolution of IND_1 - R intensity during the period 2007-2014 at the level of NUTS 2 regions compared with Bucuresti-Ilfov, the region with the best performances, main territorial indicators like gaps, territorial indices, and rates of gap both for the year 2007 and 2014. In the table 6 are presented main territorial indicators (gaps to the best performer, București-Ilfov Region. There is a slight reduction in regional disparities. The region, which increased its gap relative to Bucuresti-Ilfov Region, is Sud-Est Region, in time that the highest reduction in the gap was for

Centru Region.

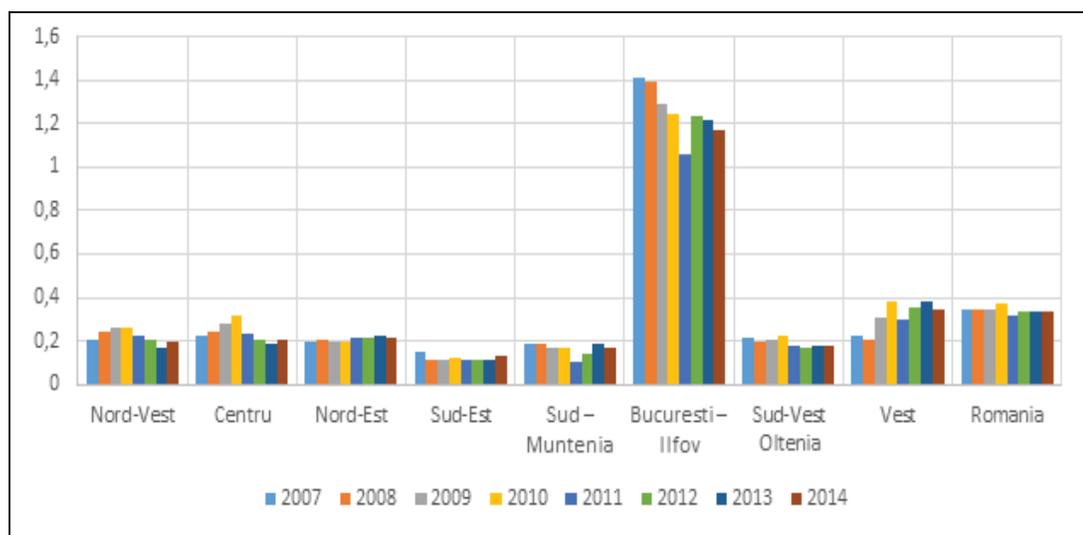
Table 6. R intensity evolution by NUTS 2 regions – territorial indicators

NUTS2 Region	2007				2014			
	R intensity	Gaps	Territorial indices	Rates of gaps	R intensity	Gaps	Territorial indices	Rates of gaps
	IND_1	$\Delta_{A/B}^{IND_1}$	$i_{A/B}^{IND_1}$	$\Delta_{A/B}^{IND_1(\%)}$	IND_1	$\Delta_{A/B}^{IND_1}$	$i_{A/B}^{IND_1}$	$\Delta_{A/B}^{IND_1(\%)}$
Nord-Vest	0,38	-0,86	0,31	-69,35	0,27	-0,51	0,35	-65,38
Centru	0,15	-1,09	0,12	-87,90	0,32	-0,46	0,41	-58,97
Nord-Est	0,36	-0,88	0,29	-70,97	0,28	-0,5	0,36	-64,10
Sud-Est	0,18	-1,06	0,15	-85,48	0,06	-0,72	0,08	-92,31
Sud – Muntenia	0,45	-0,79	0,36	-63,71	0,37	-0,41	0,47	-52,56
Bucuresti – Ilfov	1,24	0	1,00	0,00	0,78	0	1,00	0,00
Sud-Vest Oltenia	0,2	-1,04	0,16	-83,87	0,15	-0,63	0,19	-80,77
Vest	0,27	-0,97	0,22	-78,23	0,18	-0,6	0,23	-76,92

Source: Calculated by the authors

As for the evolution of the IND_2 indicator, researchers, the situation is similar, but the region where the share of researchers in total employees exceeds the national average is the Vest Region. (See Figure 6)

Figure 6. Evolution of the researchers, all sectors by NUTS 2 regions, % of total employment



Source: Elaborated by the authors based on Eurostat database [rd_p_persreg], [visited on 15.08.2017]

Regarding the other relevant indicator considered, IND_2, researchers as percentage of total employment, it should note that the Bucharest-Ilfov Region is well above the national average level, too. All other regions are below the average level, except Vest Region started to the year 2010, when has seen an increasing trend over the period. (See Figure 6) Even if București-Ilfov decreased its researcher's evolution during the considered period, it remained the "best performer". To describe differences in territorial evolution of IND_2 – Researchers as percentage of total employment during the period 2007-2014 at the level of NUTS 2 regions compared with Bucuresti-Ilfov, the region with the "best performances", main territorial indicators like gaps, territorial indices, and rates of gap both for the year 2007 and 2014 were calculated. In the table 7 are presented this territorial indicators. Even there is a very slight reduction in regional disparities; all the regions decreased its gaps relative to Bucuresti-Ilfov Region. Sud-Est Region remained with the highest gap.

Starting from the differential dynamics of the two indicators in the regional profile, a particular interest is a rhythm that should impose to reaches a certain level. The overtaking coefficients, which are calculated for two territorial units based on the dynamic indices to analyzing their evolution over time, can answer many questions about the forecast of the two indicators registered at the territorial level. An overtaking coefficient shows how many times increases the level of the unit reported relative to the evolution of the unit level considered as a basis for reporting. In the table below there are the overtaking coefficients calculated with the level of București-Ilfov as the basis of reporting for the period 2007-2014 both for total intramural R&D expenditure as % of GDP, R intensity, and researchers as % of employment, too.

Table 7. Researchers (% of total employment) by NUTS 2 regions – territorial indicators

NUTS2 Region	2007				2014			
	R intensity	Gaps	Territorial indices	Rates of gaps	R intensity	Gaps	Territorial indices	Rates of gaps
	IND_2	$\Delta_{A/B}^{IND_2}$	$i_{A/B}^{IND_2}$	$\Delta_{A/B}^{IND_2(\%)}$	IND_2	$\Delta_{A/B}^{IND_2}$	$i_{A/B}^{IND_2}$	$\Delta_{A/B}^{IND_2(\%)}$
Nord-Vest	0,2023	-1,208	0,1434	-86,21	0,1948	-0,9793	0,1659	-83,41
Centru	0,2242	-1,1861	0,1589	-84,64	0,2072	-0,9669	0,1764	-82,35
Nord-Est	0,1928	-1,2175	0,1367	-86,88	0,2155	-0,9586	0,1835	-81,65
Sud-Est	0,1538	-1,2565	0,1090	-89,67	0,128	-1,0461	0,1090	-89,10
Sud – Muntenia	0,1855	-1,2248	0,1315	-87,40	0,1635	-1,0106	0,1392	-86,07
Bucuresti – Ilfov	1,4103	0	1	0,00	1,1741	0	1	0,00
Sud-Vest Oltenia	0,2116	-1,1987	0,1500	-85,54	0,1771	-0,997	0,1508	-84,92
Vest	0,2223	-1,188	0,1576	-84,78	0,3424	-0,8317	0,2916	-70,84

Source: Calculated by the authors

Table 8. The overtaking coefficients for the period 2007-2014

NUTS2 Region	R intensity (Total intramural R&D expenditure as % of GDP)		Researchers (% of employment)	
	Indices of dynamic	Overtaking coefficients	Indices of dynamic	Overtaking coefficients
	$I_A = \frac{IND_1_{2014}}{IND_1_{2007}}$	$I_{A/B}^{IND_1} = \frac{I_A}{I_{Buc-Ilfov}}$	$I_{A/B}^{IND_2} = \frac{I_A}{I_{Buc-Ilfov}}$	$I_A = \frac{IND_2_{2014}}{IND_2_{2007}}$
Nord-Vest	0,71	1,13	0,96	1,16
Centru	2,13	3,39	0,92	1,11
Nord-Est	0,78	1,23	1,12	1,35
Sud-Est	0,33	0,53	0,83	1,00
Sud – Muntania	0,82	1,31	0,88	1,06
Bucuresti – Ilfov	0,63	1,00	0,83	1,00
Sud-Vest Oltenia	0,75	1,19	0,84	1,01
Vest	0,67	1,06	1,54	1,86

Source: Calculated by the authors

Even București-Ilfov has the best performances for both indicators, much over than the national level, should remark that except Sud-Est Region, all the other regions overtake the București-Ilfov as regard the development rhythm. Note here Centru Region for R intensity indicator, and Vest and Nord-Est Regions for researchers, which present the highest values. Even though București-Ilfov has slowed down its development of the R&D sector, it is expected that the rhythm of development of R & D services will accelerate, especially in Centru, Vest and Nord-Est regions. We have in attention the number of facilities have been thought, of lately to stimulate the sector, like labor incentives, fiscal incentives, reinvested profit, and state aid for R & D or intellectual property (Buciuman, Tapai, and Grigore, 2017, p.2).

4. Conclusions

The scientific research activity, considered the initiator of economic and social progress, largely influences the economic and social development of a country, the sustainable and sustainable development of any field of activity. The study confirms that in Romania the R&D activity has not been sufficiently supported by investments and financing related to this sector, a situation which characterizes this sector of activity both at the national and at the regional level. Only the Bucharest-Ilfov Region, the most developed region of Romania, located above the European average, recorded a favorable position, while all other regions registered significant development gaps. Possible causes of this evolution may be the historical ones, such as the closure of research institutes after

90, and evident the dismissal of staff, the influence of free movement in Europe since 2001, the migration of brains with Romania's accession to the EU, the effects of the 2008 crisis, inappropriate salaries of researchers, lack of a performer research infrastructure. The increased funds from foreign sources and the fiscal facilities for this area can boost activity in the future at least three other regions, West, Centru, and Nord-Est Regions whose capitals are very strong university centers in Romania, significant and at a European level that can support R & D activities at a high level, but probably, the regional disparities remained.

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Innovation policies and entrepreneurship in the Baltic States - key to European Economic success

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Abstract

Entrepreneurship is by far the most important force stimulating economic growth and social progress. In case of the Baltic States pro-market regulation allowed passing over the transition period in a relatively short period of time and, therefore, be sufficiently competitive as to integrate into the European Union. Thus, presently, the Baltic States came to be the most economically developed countries among the former USSR states. Consequently, the present research addresses three key questions, first, which is the role of entrepreneurship in determining the Baltic States' economic development, second, what is the influence of R&D investments of the society in general and of business in particular in boosting economic development, and third, will the present fiscal policies in the Baltic States motivate further economic growth by stimulating entrepreneurial and innovation? The methodology involved in this paper includes both quantitative and qualitative indicators which combined will offer a deeper insight upon the matter of the present research. The results received allowed reaching the conclusion that entrepreneurship has enhanced all the Baltic States' economic competitiveness yet the extent differ, with Estonia leading followed by Lithuania and Latvia.

Keywords: the Baltic States, economic development, reforms, entrepreneurship, innovation

JEL Code: E22, F15, E62, H61

1. Introduction

After the collapse of Soviet Union in 1991, the Baltic States, Estonia, Lithuania and Latvia regained the independence. Building capitalism on the remnants of communist economy demanded huge human effort and financial resources. Nevertheless, the Baltic States proved to be the most successful among former soviet republics since they managed to overcome in a relative short period of time the transition period joining NATO, the European Union and the Eurozone. Presently, the Baltic States are among most dynamic

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economies in the Eastern Europe. The development path of Estonia, Lithuania, and Latvia from obsolete and rigid to prosperous and innovative economies was powered by entrepreneurship and it was boosted by the economic reforms, widely implemented in the transition period.

The present research addresses three key questions, first, which is the role of entrepreneurship in determining the Baltic States' economic development, second, what is the influence of R&D investments of the society in general and of business in particular in boosting economic development, and third, will the present fiscal policies in the Baltic States motivate further economic growth by stimulating entrepreneurial and innovation? Answering to this questions will require realising the following objectives including determining relevant literature review outlining the opinions of various authors upon the researched matter. Moreover, it is to be drawn an entrepreneurial profile of each Baltic State consisting of various indicators important to assess business performance. Then, it should be assessed the socio-economic performance and its inter-relation with the countries' business success. Finally, it has been established as an objective to evaluate the favourability of the present fiscal environment to maintain high levels of business activity and its development. Of particular importance is the necessity to determine the correlation coefficients between: first, indicators of economic development (expressed through GDP per capita current international \$ PPP adjusted) & those of entrepreneurial and innovation performance (including Research and development expenditure (% of GDP) and Business enterprise sector R&D expenditure EUR per inhabitant). Second, correlation will be determined for the relations between the indicators of economic development, entrepreneurial and innovation performances and several taxes of relevance describing the favourability of doing business.

Thus, the present paper comes to provide new insight upon the researched matter identifying key aspects of the Baltic States' entrepreneurship and its future development perspective in the conditions of growing global competition.

2. Literature review

Erixon (2010) underlined that the Baltic countries were badly hit by the global financial crisis. Gross domestic product has significantly decreased, yet the growth potential is high. Since the independence, the Baltic countries have chosen the right institutional structures. A good economic strategy was selected and namely to accelerate reforms. Unlike many other countries in transition Europe, the Baltic countries were part of the Soviet Union, thus, had to go through a much more rigorous stage of reform. They had to quickly leave the ruble zone and the economic planning structure of the Soviet Union. In other countries with economies in transition, such as Poland, the task in this regard was much easier. The Baltic countries developed and joined the European Union, their propensity for further economic reforms has slowed noticeably. Accession to the European Union was the culmination of the past period of reforms. Some thought that this was the reforms. With economic maturity, some macroeconomic measures should ideally move to support the cooler economies not to overheat and create bubbles. In the end, the correct strategy of economic policy for the Baltic countries is to consolidate their economic integration with Europe.

According to Pekarskiene & Susniene (2011) the level of globalization in the three Baltic States is relatively high. The analysis of the globalization indicators of Lithuania, Latvia and Estonia confirms the findings of scientists that small countries are more globalized. Estonia is the most globalized country in the Baltics. The particularly high level of globalization of the country is linked to the rapid process of economic globalization in Estonia. Lithuania dominates the field of political globalization among the Baltic countries. Latvia is the least globalized of the three Baltic States and the indicators of globalization in the political field are extremely low. At the same time, Vojtovic & Krajnakova (2013) consider that the Baltics' economic development is a result of international partnerships and structural reforms. The Baltic States would not have done a difference if economic and social integration in the process of European Union integration were not combined. Thus, the rates of economic development in these countries differ insignificantly from each other. In addition to the revolutionary economic changes pursued during the transition, the Baltic States followed an evolutionary path through the participation in international capital and investment flows, as well as by wise implementation of the economic policies promoted by governments.

Cornia (2011) stated that Estonia, Lithuania, Latvia have promoted efficient economic policies helping them to develop countries' investment attractiveness, both for foreign and national entrepreneurs. The countries de-regulated their control over the capital inflows including sectorial distribution allowing the free market to decide what, when and how to be produced. The stable monetary policies and appropriate exchange rates offered higher motivation for the business environment to undertake higher risks. Proper fiscal policies improved countries' economic competitiveness providing increased initiatives for businesses to enlarge their operational capacities. Nevertheless, inside the Baltics the economic success and performance is uneven since there is specific economic conjuncture leading to a different level of growth. Moreover, Bakshi et al (2011) mentioned that the Baltic States have successfully integrated in the global capital flows. They have a leading position in the Eastern Europe being the nations which open this macro-region for major investors. The development of the financial markets in these states allows for increased liquidity of the financial resources the fact motivating higher economic activity.

Deroose et al (2010) said that despite the fact that three Baltic States developed in similar circumstances, due to similar stages of recovery and financial convergence, the development prospects are significantly different due to various policy frameworks. While Latvia needed the official help of EU and IMF financing program, the other two states did not. The main task of these countries is to regain their growth potential, to completely rebalance their economies. It could be also highlighted a number of lessons from the experience of the Baltic States on the role of financial and macroeconomic policy in the management of overheating economy and growing economic imbalances.

Kuokštis & Vilpišauskas (2010) as well as Burghelea (2011) mention that the Baltic countries, as it is generally believed, are similar in several aspects yet not the same at all. Some economic structural aspects and policy reasons contribute to this answer. However, economic reasoning is not enough to explain internal differences. It could be necessary to underline that there are two major factors influencing the differentiation among the three

Baltic States including: consensus of political power and commitment to economic priorities, as well as public reaction to changes, which allows or not the implementation of major measures to strengthen economic potential. Kalvet et al (2012) believes that the Cohesion Policy resources can be found in all Baltic countries, although the management and implementation mechanisms are different. Data from the Baltic countries indicates that the European Commission encouraged the use of financial instruments with improper administrative work and inadequate understanding of the underlying economic problems, which means minimal tools and reasons for the best solution. One of the Cohesion funding's drawbacks is expressed in terms of lack of financing for SMEs and start-ups, two basic pillars of entrepreneurship. Sirbu et al (2017) and Crudu & Ignatov (2016) comes to offer a counter argument mentioning that the European Union's support was determinative in the sustainable development of Eastern EU countries, especially the development of new member states' energy sector contributing to the complexity of their economic competitiveness. Kuokstis (2011) considers that the specific mode of production in the Baltic region has a relatively low need for social and industrial protection and private or public investment in education. Instead, greater flexibility in the labor market and overall macroeconomic stability are required, ensuring a low public deficit and changing predictability. Concrete "Baltic capitalism" can also help explain the successful Baltic strategy during the last crisis (from the point of view of protecting currency correction).

Vosylius et al (2013) highlight that the effect of economic growth in the Baltic States should be viewed in the short and long-term perspective. An important aspect in this regard is played by the energy sector. In some other way, by which it is measured the energy security and, secondly, how the countries approach through policies the sustainable development. Economic growth and energy security are elements belonging to the results of correlated energy and economic policies. Aiginger (2011) underlined that in the pre-crisis conditions in the Baltic States including the fiscal regulation, commercial competitiveness, productivity and credit growth, the structural features of the economy have been favourable due to the global economic ascension. Presently, the size of the countries, their trade and investment openness, share of individual sectors and per capita income are among their competitive economic advantages. Nevertheless, the Baltic States in terms of economic conditions are unevenly favourable. Thus, the three indicators which make the difference between countries are the current economic priorities, credit and GDP structures. Trade competitiveness is also an indicator of improved economic efficiency.

Kang & Shambaugh (2013) stated that the explanation of the current account deficit in the euro area and the Baltic States is based on two main factors: the deterioration of export performance and change in demand structure. It could also be added that there have been significant changes in net transfers and net surpluses. Although export performance in most countries remains relatively stable, households and companies are protecting the same level of spending when supplies to some countries are shrinking. This was part of the constant opening of trade, which, together with large net payments, increased the current account deficit. All these factors have played a different role in the development of the current account deficit in these countries.

Concluding this section it could be underlined that the articles mentioned offer a

general insight upon the role of entrepreneurship in the economic development of the Baltic States (Estonia, Latvia and Lithuania). It is either examined particular aspects of entrepreneurial activity i.e. the role of pro-market regulation or the issue is slightly overviewed in the macroeconomic context. Further research is need to determine specifically the capacity of Baltic States' entrepreneurial environment to go beyond the expected framework of activities the leading to overall and comprehensive economic development of the region as a whole.

3. Data and Methodology

The present paper is based both on qualitative and quantitative data. Qualitative analysis is performed to identify the countries' entrepreneurial profiles through the assessment of the following indicators: economic freedom, corruption perception, stability of macroeconomic environment, market efficiency, level of business sophistication, and the ease of doing business. The goal of this evaluation is to determine the perceived efficiency of the Baltics' business environment taking into account the opinions of experts, business representatives, policy makers, anti-corruption activists.

Quantitative analysis is completed with the purpose of offering the qualitative assessment a numerical insight. It includes the analysis of the indicators. Firstly, GDP per capita informs about the general evolution of the level of welfare of the countries offering a general insight upon the capacity of business environment to produce a sufficient level of wealth to assure high standards of living for the population. Secondly, Research and development expenditure (% of GDP) highlights in general terms the preparedness of the society to invest in new technologies and innovation, considering that the higher is the R&D spending the higher is the probability to have a technological breakthrough. At the same time is analyzed the Business enterprise R&D expenditure to identify which is the contribution of business sector to innovation related activities. A high indicator informs about an advanced development stage of the business environment considering the fact that only prosperous enterprises can finance risky projects related to R&D. Fourthly, the Baltic States' propensity to entrepreneurship is examined through the prism of several taxes affecting entrepreneurial activities which either motivate or not to do business to develop. Lastly, correlation coefficient is calculated between relevant indicators of entrepreneurial competitiveness allowing identifying the existence of linkages among the variables the fact providing the opportunity to pinpoint proper conclusions.

In this way it is proposed to identify the role of entrepreneurship in the economic development of the Baltics and the business' contribution to higher countries' economic performance.

4. Research results

Innovation and entrepreneurship has been supported in the Baltic States through national, regional and European level policies. Thus, at the national level, Estonia, Lithuania and Latvia included innovation and stimulation as core to economic development and growth. Policy measures which were firstly re-enforced regarded increased of intellectual property rights protection which had to guarantee to entrepreneurs

a transparent environment and enhanced stability. Secondly, favourable business climate has been developed. This meant wide measures in simplifying bureaucracy and at the same time eradicate corruption. These actions have been widely undertaken during the transition period aimed at consolidate the mechanism of the Baltic free market. Thirdly, it was looked for to increase the propensity of the entrepreneurs to patent in order to provide favourable conditions for dispute solving. At the same time, the governments implemented measures of industrial restructuring aimed at increase country's manufacturing performance. Finally, the Baltic States have implemented reforms and policies in the area of boosting countries' capacities in attracting investments. Also, several initiatives look for determining favourable spill-overs of FDI in the whole economy (Krammer, 2009).

At the regional level, it can be highlighted that of particular importance for the development of entrepreneurship and innovation in the Baltic States was the EU Strategy for the Baltic Sea Region (Bengtsson, 2009). Thus it aimed to implement the Small Business Act: to boost entrepreneurial activity within the regional level, particularly SMEs. It also regarded to improve the access to, and efficiency of the Baltic States energy. Moreover, this strategy consolidated the efforts of the participating countries in strengthening common infrastructure. In the area of innovation, the document aimed at to exploit the full potential of the region in research and innovation and increase the efficient use of human resources (European Commission, 2009).

At the level of European Union, wider and more comprehensive initiatives have been undertaken to boost member countries', including the Baltic States', innovation and entrepreneurial performance. In this regard, it could be mentioned the following initiatives including the EU 2020 strategy. Through this strategy, the European Union aimed at enhancing its entrepreneurship and technological leadership to boost the competitiveness of the member states' economy. Some of the key flagship initiatives of this strategy were directed towards fostering resource use and industry. Another EU programme which regards promoting innovation and entrepreneurial performance is the Horizon 2020 initiative. The Horizon 2020 programme comprises 10 sections including a wide range of areas starting with innovation in ecologic related issues, industrial processes and SMEs. There are also other initiatives of the European Union having a narrower focus either on SMEs stimulation, COSME- Europe's programme for small and medium-sized enterprises, or Creative Europe directed towards stimulation of creative areas of economy in the European Union.

Further, it will be assessed the general effect of all policies either national, regional or European level upon the innovation and entrepreneurial performance of the Baltic States, highlighting which country succeeded in benefiting the most from exploiting the offered opportunities in the area of business activity and research and development.

On the base of the information provided in table 1 is created the entrepreneurial profiles of the Baltic States. Thus, It can be observed that during the researched period of 2008-2016, Estonia has considerably improved its ranking according to the analysed indicators. Consequently, it is placed within the first 10 most economically free countries in the world. Estonia has climbed 5 positions considering the Corruption Perception index being 22nd in 2016. At the same time it has considerably increased its macroeconomic

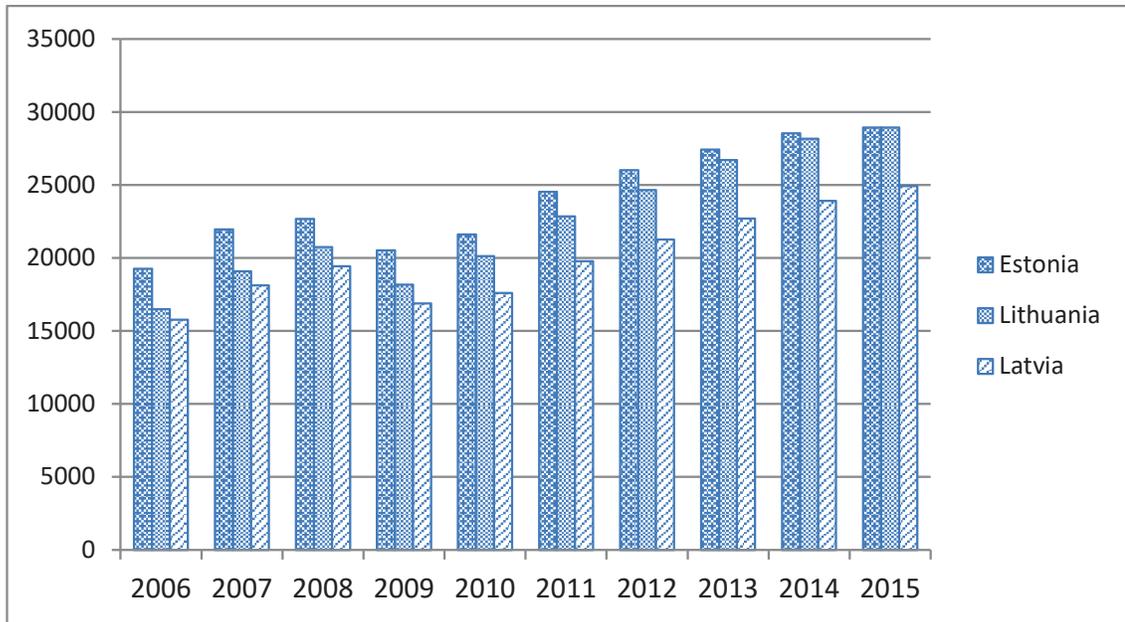
competitiveness (+11 positions), market efficiency (+4), business sophistication (+6) and Ease of doing business (+2). Lithuania has also reported favourable growth of its business competitiveness within the same period climbing 13 positions in terms of economic freedom, 20 positions considering Corruption Perception index, 18 in terms of macroeconomic efficiency, 9 positions in terms of market efficiency, 7 and 2 taking into account business sophistication and respectively Ease of Doing Business. Latvia reported also impressive enhancement of its entrepreneurial environment, economic freedom (+2), Corruption Perception index (+8), macroeconomic environment (+47), market efficiency (+3), business sophistication (+25) and Ease of Doing Business (+4). As it can be observed all of the three states have improved their entrepreneurial competitiveness, Estonia being the most efficient in these terms being followed by Lithuania and Latvia.

Table 1. Entrepreneurial profiles of Estonia, Lithuania, and Latvia

		Economic freedom Index (A)	Corruption Perception Index (B)	Macroeconomic Environment (C)	Market efficiency (D)	Business sophistication Index (E)	Ease of Doing Business Index (F)
Estonia	2008	12	27	23	24	50	18
	2016	9	22	12	20	44	16
Lithuania	2008	26	58	52	48	49	22
	2016	13	38	34	39	42	20
Latvia	2008	38	52	71	52	83	26
	2016	36	44	24	49	58	22

Source: (A) The Heritage Foundation, www.heritage.org. (B) Transparency International, www.transparency.org. (C, D, E) World Economic Forum, www.weforum.org. (F) World Bank, www.doingbusiness.org.

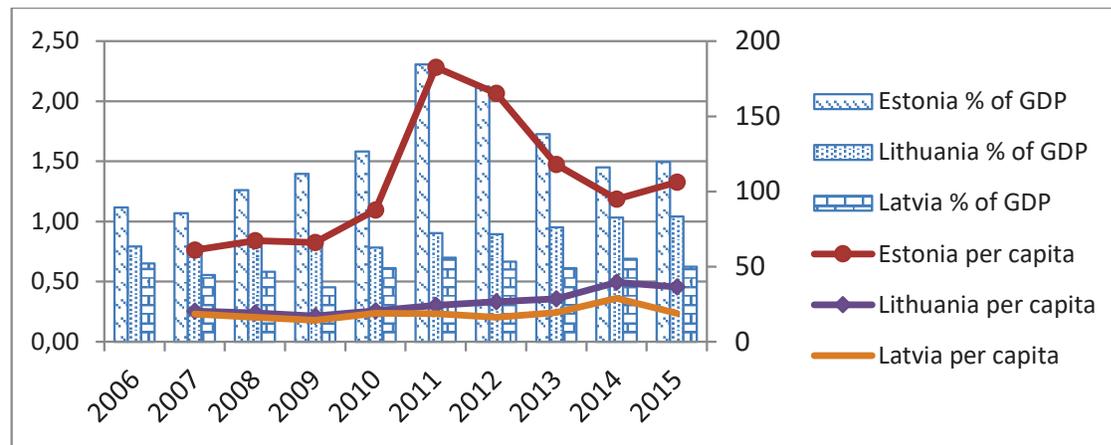
By examining figure 1, it can be observed that the general level of wellbeing in the Baltic States has increased in the period of 2006-2015. At the beginning of the period Estonia was the leader in terms of GDP per capita, yet in 2015 it was matched by Lithuanian one. By analysing the evolution of GDP per capita it can be underlined that it almost corresponds with the entrepreneurial profiles drawn above with Estonia being the most business oriented, followed by Lithuania. Latvia registered lower business competitiveness as compared to Estonia and Lithuania; this fact can be reflected also in GDP per capita graph. Since the business are offered lower freedom and opportunities it is less active and prepared to undertake riskier projects. The impressive ascension of Latvia in terms of business competitiveness demonstrates the fact that government is directing more efforts towards enhancing entrepreneurship to close the development gap as compared to Estonia and Lithuania.

Figure 1. GDP per capita of Baltic States, current international \$ PPP adjusted

Source: Designed based on data provided by the World Bank, available at data.worldbank.org [visited on 07.12.17]

It can be observed that the leadership of Estonia in terms of entrepreneurial development is reflected in higher overall expenditure on R&D compared to Lithuania and Latvia (Figure 2). Thus, within the period of 2006-2015, the Research and development expenditure (% of GDP) has grown from 1.12% at the beginning of the period to 1.5% at the end with the maximal level of 2.31% in 2011, compared to Lithuania, 0.79% and respectively 1.04%. Latvia has decreased its R&D expenditure from 0.65% from GDP in 2006 to 0.63% in 2015. Another important indicator in this direction is Business enterprise sector R&D expenditure EUR per inhabitant. It is considered an indicator of business prosperity and strength since only competitive and wealthy businesses can finance activities related to R&D. The difference among the Baltic States according to this indicator is huge, Estonia being the dominant leader and more modest results shown by Lithuania and Latvia. Thus, the Business enterprise sector R&D expenditure EUR per inhabitant of Estonia has grown from 61 EUR in 2007 to 106 EUR in 2015. In 2011 and 2012 were reached the highest values of this indicator for Estonia, 183 and 165 EUR respectively. Combined, the per capita expenditure in Lithuania and Latvia does not match even close the amount of Estonia, making up only 62% in 2007 and 53% in 2015. Therefore, it can be concluded that Estonia has considerable advantage in terms of entrepreneurship as compared to the other two Baltic countries. In these terms, Estonia is rather closer to the Czech Republic (168 EUR in 2015), Spain (148 EUR in 2015) and Hungary (99 EUR in 2015). Consequently, it can be underlined that entrepreneurial clusters and structures in Estonia are more advanced capable of bearing higher expenses allocated towards innovative activities while Lithuania and Latvia do lack them.

Figure 2. Research and development expenditure (% of GDP) & Business enterprise sector R&D expenditure EUR per inhabitant



Source: Designed based on data provided by the World Bank and European Commission, available at data.worldbank.org, ec.europa.eu [visited on 07.12.2017]

Thus, it can be generally observed on the base of the information examined above that Estonia is by far the leading Baltic economy in terms of entrepreneurship and innovation. This fact is a direct result of the reforms which have been widely implemented starting with the transition period and finishing with present days stressing the importance of business processes and development. The advantage of this country over Lithuania and Latvia is its favourable entrepreneurial climate and higher propensity for entrepreneurship of fiscal conditions (Annex 1).

In table 2 there are presented several correlations to help reaching relevant conclusions. Thus, the first correlation coefficient is calculated for Research and development expenditure (% of GDP) & GDP per capita current international \$ PPP adjusted, the results received underline the existence of relatively strong relation between economic development and R&D for all of the research countries. The second correlation is calculated for GDP per capita current international \$ PPP adjusted & Business enterprise sector R&D expenditure EUR per inhabitant, the coefficient reached highlights the presence of relatively strong relation between business expenditure on innovation related processed and economic development for all of the Baltic States. These two correlations underline the existence of linkages between economic growth and the expenditure on innovation, research and development. The third coefficient is calculated for Research and development expenditure (% of GDP) and Business enterprise sector R&D expenditure EUR per inhabitant, the results obtained demonstrates that business sector expenditure on R&D and the overall society's investments in this area are highly interrelated. For all of the Baltic States have been received highly strong correlations which allows inferring that business R&D is determinant in boosting national investments in this area.

The next calculated correlations are supposed to inform regarding the existence of any relations between business and overall society investment in R&D related activities and the level of several selected taxes. Thus, it has been examined the correlation coefficient between Business enterprise sector R&D expenditure EUR per inhabitant &

Taxes on income, profits and capital gains (% of revenue). For all of the countries it has been reached negative results, strong for Estonia and Lithuania and weaker for Latvia (table 2). Almost the same results have been reached for the correlation between Research and development expenditure (% of GDP) & Taxes on income, profits and capital gains (% of revenue). Thus, it can be underlined that there is a reverse relation between the indicators meaning that the higher the respective taxes the lower will be the predisposition of business sector to invest in R&D with negative results on overall country's performance on innovation investments.

The next assessed correlations are between Taxes on goods and services (% of revenue) & Business enterprise sector R&D expenditure EUR per inhabitant, and respectively, Research and development expenditure (% of GDP). The results reached, except for Latvia, demonstrates that there is almost no inter relation between the indicators, the fact exemplified by the low degree of influence of internal market demand in this countries on technological development investments. The positive results of Latvia are speaking about high influence of governmental support directed towards stimulating R&D investments at the level of business sector as well as at the level of national economy. The higher are the respective tax rates the higher is the governmental funding and therefore the investments of business in research activity (table 2). The same conclusion for Latvia can be reached for the next correlation assessed. In case of Lithuania, the negative correlation between Taxes on goods and services (% value added of industry and services) & Business enterprise sector R&D expenditure EUR per inhabitant, and respectively Research and development expenditure (% of GDP) demonstrates that the business sector is quite sensitive to the change of the respective tax, thus decreasing its rate will boost the amount of investments of business allocated towards innovation. Almost no correlation in the case of Estonia is described by low interconnection of the country's IT sector with internal industry, or by the small size of internal market demand for technological products.

Table 2. Correlation coefficient between indicators of entrepreneurial competitiveness

Correlations	1&2	2&3	1&3	3&4	1&4	3&5	1&5	3&6	1&6
Estonia	0,42	0,44	0,97	-0,49	-0,64	0,38	0,03	0,11	0,14
Lithuania	0,93	0,95	0,95	-0,41	-0,56	0,07	0,07	-0,37	-0,38
Latvia	0,44	0,57	0,58	-0,19	-0,22	0,56	0,42	0,64	0,65
1) Research and development expenditure (% of GDP)									
2) GDP per capita current international \$ PPP adjusted									
3) Business enterprise sector R&D expenditure EUR per inhabitant									
4) Taxes on income, profits and capital gains (% of revenue)									
5) Taxes on goods and services (% of revenue)									
6) Taxes on goods and services (% value added of industry and services)									

Source: Own processing based on data provided by World Bank and European Commission.

5. Conclusions

Entrepreneurship has played a determinant role in supporting economic development of the Baltic States since the fall of Soviet Union. Pro market reforms implemented during the transition period consolidated the economic potential of Estonia, Lithuania and Latvia. Estonia succeeded in developing higher economic competitiveness by promoting at a greater extent economic liberalism which motivated growth of the complexity of entrepreneurial activities. This country is by far the leading Baltic economy providing more opportunities for businesses all around the world the fact determined by high positions in different rankings. Lithuania and Latvia have recorded impressive improvement of their entrepreneurial climate in the last period, yet they lack investment in the area of research and development. This fact is characterised by lower complexity of the existing business activities which cannot bear high costs related to financing innovation. Estonia has opened its economy in the right period and in the right circumstances the situation which enabled absorption of new competences which in a short period of time were transformed in financial resources.

It was demonstrated that there is a strong relation between economic development and the amount of financial resources allocated to R&D in each of the Baltic State, including the business sector spending on innovation. Generally, lower tax burden provides more business opportunities and therefore entrepreneurs are more predisposed to investing in risky projects. Higher tax rates increase the cost of innovation the fact demotivating businesses to grow and expand. These general inferences are valid for the Baltic States, nevertheless, due to certain circumstances there are some exceptions. Some of them are, first, small domestic market which does not provide enough motivation to undertake riskier projects and therefore higher openness to the world is required. Estonia has succeeded in benefiting from this circumstance while the other two countries did not, or did but at lower extent. In case of Latvia, due to weak business sector as compared to Estonia or Lithuania, the governmental support is required to support R&D investments, yet the reasonability of this involvement is under question since public support often prove to be inefficient.

The present research comes to underline the importance of liberalised business environment for economic, technological and innovation development. The Baltic States are relevant examples which show how entrepreneurship can boost countries economic competitiveness. Future undertakings on this issue are welcome since there are important aspects to be covered including the role of EU funding in boosting entrepreneurship and innovation, degree to which an economy should be liberalised and which conditions should be followed. At the same time, it could be analysed the structural economic aspects to identify which sectors invest more in research and development activities, which are less competitive in this area. Moreover, the research could be extended to comprise a European Union perspective the fact providing the possibility to identify which countries succeed in balancing entrepreneurial policies. One limitation of the research is the fact that some data is either not available or not recent. This fact could affect the accuracy of economic forecasting.

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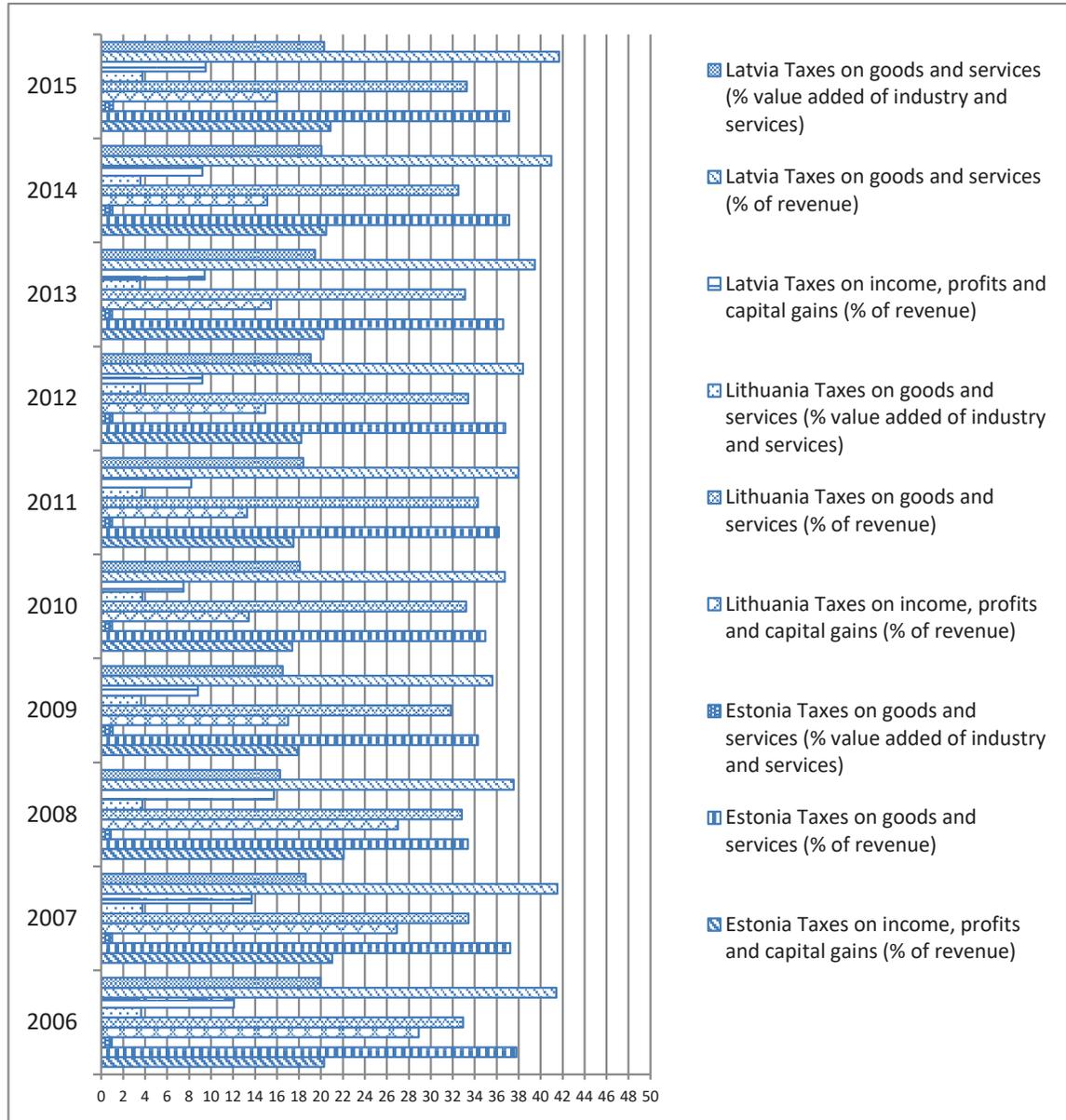
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Annex 1. Baltic States' propensity to entrepreneurship



Source: Designed based on data provided by the World Bank, available at data.worldbank.org [visited on 9.12.17]

Human Environment and Cultural Influence on the Development of International Business

ȚĂU Nicolae¹

IBRAHIM MUSTAFA SHARFELDIN Mohammedelkhatim²

Abstract

Peoples always seek to improve their life conditions. This sought had significantly contributed to the improvement of human life. Urbanization was a major turning point in the history of human development. It contributed to a change of lifestyle and a progress of business. The establishment of urban areas led to a transformation in the human and cultural environments. Furthermore, globalization processes contributed considerably to the alteration of human and cultural environments. In this work, we are going to explore the components of the human and cultural environment. The main aim of this work is reveal how can human environment and cultural influence the development of international business. This work is similarly meant to exhibit how cultural differences can and cultural transformation caused by globalization processes, affect communication, negotiation and management processes, thus influencing the development of international business.

Keyword: lifestyle, urbanization, power distance, individualistic, collectivistic, masculinity, femininity, uncertainty avoidance, long-term/short-term orientation, indulgent, restrain, universalistic, collectivistic, neutral, emotional, specific, diffuse, achievement, ascription, sequential, synchronous, Internally-directed, externally-directed.

Introduction

Societies sought to improve their life conditions. This sought contributed to the alteration of many aspects for instance lifestyle. Transformation in lifestyle influenced human and cultural environment. Change in human and cultural environment affected activities carried out by people such as business operations. Globalization promoted knowledge and awareness thus, influencing human environment. Globalization processes also affect cultural environment in many ways. In this work, we are going to illustrate how can globalization influence components of the human environment and how this influence affect the development of international business. We are going also to show how globalization processes affect components of the cultural environment and how cultural differences and cultural transformation impact communication, negotiation and management processes, thus influencing the international business development.

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Individuals always seek to improve their life conditions. This sought had significantly contributed to the improvement of human life. Instead of hunting and gathering, people turned to agriculture. This shift in lifestyle led to alteration in human environment. Stability in one place rather than moving from one place to another became a common feature. Societies sought to settle down in certain places so as to ensure better life conditions. Industrial revolution similarly contributed to stability of societies. Transformation in lifestyle influences human environment largely. Alteration in human environment had some effects on the cultural environment. Change in human and cultural environment influenced activities carried out by people such as business operations. In the following paragraphs, we are going to reveal human environment and cultural influence on the development of international business.

As above-mentioned, shift in the lifestyle of people caused by agriculture and industrial revolution had contributed to societies' stability. Stability of societies in specific places had great impacts in their life. It led to the development of urbanization which gradually attracted some pastoral societies. Construction of villages and their development into towns promoted human environment in different ways. Establishing settlements eased provision of healthcare services which in turn decreased mortality percentages among people. Formation of towns also promoted education and raised people's awareness to practices concerning related to hygiene and health. Improvement of life conditions also contributed to growth of population, which in turn promoted trade as merchants sought to meet people's needs and correspondingly gain more profits. Mostly, population is one of the factors affecting the development of international business (Spillan et al, 2017, p.147).

As aforesaid, the establishment of settlements and societies' tendency to settle in these towns promoted the provision of services such as healthcare and education, thus contributing to the growth of population in these urban areas. The number of inhabitants affects human life in different ways. Population density in one place is one of the key factors influencing development of international business. It impacts the quantity and quality of commodities offered and services delivered. It encourages competition between businesses considering initiating business activities in a specific market. The population's density motivates firms to evaluate volumes of goods and services required in any potential market (Adamik et al, 2011, p.172).

The prosperity of settlements and the development of transport means encouraged many societies to settle in the newly urbanized areas. As time passes, numerous changes occurred in the human environment in these urban areas. Forces such as globalization played major roles in these changes. Globalization processes contributed to shift of population's density in urban areas. Similarly, they affected ethnic composition in many areas as people from different parts of the world move to places where they secure jobs. Shift of ethnic composition may lead to alterations in inhabitants needs and desires. Globalization processes also contributed to the raise of people's awareness as opportunities for education had increased significantly. In the following paragraph, we are going to show how alteration of ethnic composition may well affect the development of international business.

Globalization processes as previously shown contributed to the change of many aspects of human environment. As a result of the cultural globalization processes,

education openings were offered in many educational institutions to students from diverse countries. These openings contributed to increasing students' awareness. Economic globalization processes also contributed to raising people's consciousness. In order to improve their economic conditions, a lot of people moved to other regions and/or countries. Settlement of students and employees in other countries may impact the ethnic composition and culture. Indigenous culture may resist and new settlers' culture can also prevail depending on both cultures' strength. Alteration of the dominant culture in one location may lead to alteration in society members' needs. Transformation of inhabitants preferences influences development of international business.

As aforesaid, globalization processes contributed to the change of ethnic composition. While some societies moved and settled in urban areas, others decided to enjoy rural quiet life. Societies which settled in the urban areas were relatively forced to approve certain urban cultural characteristics. In towns, accessibility to educational institutions may help in increasing people's awareness in contrary to rural areas. Rural societies managed to some extent to preserve their cultural characteristics. Both urban and rural cultures have great impacts on people's preferences. Raising people's awareness might gradually lead to alterations in quantity and quality of goods and services needed in a specific location. So, It may force firms to adjust production and sale's strategies, hence, influences development of business operations. Development of international business is closely linked to urbanization (Brown and Gutterman, 2009).

In the previous parts, we have shown how human environment impacts the development of international business. In the next pages, we are going to demonstrate the influence of cultural environment on the development of international business. First of all, cultural differences affect international business operations in many ways. Globalization processes had led and still leading to processes of cultural transformation. At the first place, we are going to exhibit how cultural differences affect international business activities. Afterward, we are going to show how cultural transformation influence international business development. In spite of the huge efforts made in the field of cross-cultural studies, still much more work has to be conducted to tell how cultural differences can reveal new business opportunities and how these differences may in some ways lead to huge losses for firms, therefore, undermine business development.

International business activities increased significantly during the recent centuries. Firms turned to establish business activities in new regions where production factors are favorable. Such a trend contributed to building working teams whose members are from different countries, belonging to different cultures. This tendency contributed to developing new thoughts and ideas, subsequently providing new varieties of goods and services as well as new insightful approaches to business problems. It also contributed to the success and development of many businesses but also nonprofit organizations. Cultural differences assist firms in revealing unseen values in some societies, thus identifying suitable plans to correct business strategies in the new markets. They also help to illustrate how and why some commodities and services suite some societies. Cultural differences impact the way in which people consider feedback provided by clients (Sia, Choon Ling, et al., 2009).

Even though cultural differences may affect positively the development of international business as earlier shown. Yet, they constitute a threat for the development of business activities. Cultural differences can retard firm's growth pace. Culture impacts communication, negotiation and management processes. Communication style differs from one culture to another. It covers aspects such as formality of address and manner of greeting. While some societies tend to use formal style and insist to address counterparts by their titles. Others take an informal style and start a discussion on a first-name basis. In general, it takes sometimes to understand cultural specificities. When working in a multicultural environment, sometimes cultures collide. A simple gesture may be understood in a wrong way, consequently leading to a quarrel. Studies show that cultural differences can create major problems for integration (Sarala, Riikka and Eero Vaara, 2010).

The same challenges related to communication may occur when business team members working abroad meet business partners for the first time. Errors can occur with customers from a relatively different culture. Moreover, disputes may happen when national culture collides with organization's culture. Organizational culture encompasses values which govern staff members' attitudes and behaviors. These values determine how a corporation's employees and management interact and handle outside business transactions. Organizational culture impacts communication style with business partners. As a result, it influences international business development. In the next parts, we are going to explain how can culture affect negotiation and management styles and how can this effect impacts the development of international business. In a globalized condition, organizational and national cultural differences often manifest.

Culture has great effects on negotiation and management styles. Attitudes and behaviors, beliefs, religion, traditions and customs, languages in addition to social organization constitute the central components of a culture. These values dictate manners that people use to interact with others. As they dictate styles of interaction among individuals, they may impact the approaches that individuals use to do certain activities. In the following paragraphs, we are going to observe how can these values impact the ways people conduct negotiation and management processes and how can culture affect the development of international business. In order to investigate the issue to obtain some results, we are going to use the Hofstede's cultural model and the cultural model developed by Fons Trompenaars and Charles Hampden-Turner. The two models assist in better understanding the impact of cultures on business environment.

Power distance affects business activities in many ways. Negotiation and management styles in a society are influenced by the level of power distance in that society. In societies where power distance index is high, respect for age, status and rank prevails. So, there is little room for discussing decisions. Negotiation is difficult because managers take decisions unilaterally. These societies are distinguished by rigid management style which do not accept other opinions easily. We believe that this style do not help the development of business activities as it does not allow invention. In contrary, in societies where power distance index is low, there are greater chances for sharing opinions and each member has freedom to convey her/ his point of view. So, chances to negotiate and participate in management processes are greater. Such a style ensures

success. Low power distance levels encourage and support economic prosperity (Eelke, 2013).

Type and strength of relationships between society members can affect the development of international business. In his cultural model, Hofstede divided societies into two dimensions; individualistic and collectivistic. Trompenaars and Hampden-Turner categorized societies into same dimensions in their cultural model. This dimension clarifies priorities' order in the society. This index reveals an important aspect in the society. Who has the priority? the individual or the group? In individualistic societies, an individual may care for her/himself and her/his immediate family, as previously shown. Individualistic societies are also characterized by placement of self-interest firstly. In collectivistic societies, people are integrated into strong and interconnected groups that can include extended family. Collectivistic societies stress resources' sharing and willingness to give up personal interest keeping in mind group's interest.

In the previous paragraph, we illustrated the categorization of societies according to the priorities' order in the society. We also revealed some characteristics of both individualistic and collectivistic societies in order to show the motivations that stand behind people's acts. In the following lines, we are going to demonstrate how can the characteristics of each category impact business development. Members of individualistic societies prioritize self-interest. This attitude may motivate the individual to maximize the efforts in negotiation and management processes to be successful in business. These attempts may assist in developing business activities. Driven by desires to gain some profits for the interest of group, members of collectivistic societies, would attempt to make efforts in negotiation and management processes. Thus, we believe that both cultural dimensions contribute to the development of international business.

The masculinity versus femininity index is believed to have great roles in negotiation and management styles. Masculine society is characterized generally by gender roles distinction. It considers material achievements. In this society, males are expected to look after appointment scheduling and payment issues. So, they attempt to make negotiation and management processes successful in order to gain profits to cover life expenses. Quite the opposite is feminine society. Feminine society is characterized by similarity of roles between men and women, meaning that both have to share the responsibilities. Since obligation is shared, individuals may tend to act in a flexible way. This feature assist in managing negotiation and management processes effectively. So, we consider that high femininity index can assist business progress. Flexibility in negotiation and management processes assist in reducing unemployment levels (Moses, 2002).

Uncertainty avoidance influences certainly the development of international business. In societies where the uncertainty avoidance index is low, individuals handle future uncertainty in a more relaxed way. This manner may assist in conducting business in a stress-free way which can assist in business's continuation. However, we consider that high uncertainty avoidance levels contribute significantly to the development of international business. High uncertainty avoidance cultures put emphasis on the availability of information. So, negotiators and managers rely heavily on the available amount of information. Likewise, employees tend to pursue assignments depending only on the information brought to them. Therefore, high uncertainty avoidance index levels

contribute to the administration of effective negotiation and management processes. They support and promote the development of international business (Sang and Peterson, 2000, p. 415).

Time horizon of different cultures impacts international business development in several ways. Long-term oriented culture lays emphasis on future and relies on modern education as it believes that it is one of the important way to be prepared for the future. This may entail that individuals belonging to such a culture, attempt to depend on knowledge. Considering long-term benefits, they tend to make rational decisions in negotiation and management processes. So, we believe that Long-term oriented culture has some features which can make positive impact to the development of international business. In contrast to long-term oriented cultures, short-term oriented cultures do not consider long-term profit and emphasize current benefits. In negotiation and management processes, members of such cultures tend to think of temporary solutions which may not be favorable for the development of international business.

The extent to which a culture allow satisfaction of basic and natural human desires of its members may influence international business. In his model, Hofstede categorized the societies according to their approval for free satisfaction of these needs into indulgent and restrain. His classification also reveals societies' adherence to traditions and customs and the extent to which the society can accept new trends and styles. Indulgent society permits free satisfaction of basic and natural human needs, as said by Hofstede. It supports balance between work and private life. In contrast, restrain society tends to control human desires through strict social standards. Stress is being placed on work and leisure activities have lesser value. So, we believe that indulgent societies have a positive influence on the development of international business as they promote freedom of speech, debate, dialogue and feedback in negotiation and management processes.

As we earlier stated, we are going to use the cultural model developed by Trompenaars and Hampden-Turner to detect the impact of cultural values on the negotiation and management processes to see how can this impact affects the ways in which people conduct business activities and accordingly to perceive how can culture influence the development of international business. The first dimension of the model reflects cultures' adherence to rules and laws. Trompenaars and Hampden-Turner categorized societies into universalistic and collectivistic. In universalistic culture, people tend to keep their promises and be consistent. In collectivistic culture, individuals lay emphasis on relationship and situations and place them before rules. This tendency may not be favorable in negotiation and management processes. So, we believe that universalistic society promotes the development of international business.

The degree to which people are allowed to express their sentiments affects negotiation and management processes differently. Trompenaars and Hampden-Turner categorized cultures into neutral and emotional. In neutral cultures, individuals place little importance to emotions. Society members take direct approaches to the point. This tendency lead to conducting effective negotiation and management processes. In emotional cultures, people place high importance to sentiments. Thus, they are characterized by avoidance of confrontation. Furthermore, individuals tend to use indirect approaches. This tendency may possibly lead to undermining negotiation and

management processes. So, we consider that the neutral cultures have some characteristics which support the development of international business. In the societies where neutral cultures prevail, people remain objective in interactions such as business-related transactions (Smith and Sadler-Smith, 2006, p.88).

The extent to which people's private and work lives are connected influences business activities in many ways. As specified by Trompenaars and Hampden-Turner, societies maintain either specific or diffuse culture. In societies where specific cultures prevail, there is a separation between workers' private and work lives. Individuals who belong to specific cultures emphasize work objectives. They prefer to be direct, precise and transparent. These characteristics assist in leading successful negotiation and management processes. Diffuse culture are distinguished by reliance on the relationships. Individuals who belong to diffuse cultures emphasize relationships. They believe that strong relationships can assist in solving business problems and building trust for continuous collaboration. Thus, we believe that both cultures, in one way or in another, have some features which can promote the development of international business.

The development of international business is also influenced by the society's perception to the pattern of distribution of power and status among members of society. As per Trompenaars and Hampden-Turner cultural model, there are two types of cultures; achievement and ascription. Achievement cultures recognize and reward appropriate performance only. These cultures assess and evaluate people in view of their knowledge and performance. We believe that such cultures have some features which can promote international business development. Ascription cultures generally recognize title and position. In societies where ascription cultures prevail, authority and power are considered as the base upon which a person should be valued. Such a trend may not be proper in running effective negotiation and management processes. So, we believe that ascription cultures' features do not adequately serve the development of international business.

Societies' relationship with time significantly impacts the development of international business. Trompenaars and Hampden-Turner divided societies into sequential and synchronous. In societies where sequential cultures' prevail, individuals place a high value on planning. They prefer to plan, to stick to plans set and to perform one task at a time. They are also characterized by their punctuality, systemization and preference to meet deadlines. These features really assist in administering active negotiation and management processes. In societies where synchronous cultures dominate, people are likely to complete several tasks at once. Moreover, they seek to be punctual and to meet deadlines. However, they are flexible and can accept changes in times and plans without difficulty. Consequently, we consider that both cultures have characteristics which can influence positively the development of international business.

The attitudes of societies towards the environment affect the development of business activities. According to Trompenaars and Hampden-Turner's model, societies are divided into Internally-directed and externally-directed cultures. Individuals who belong to internally-directed cultures' assume that since they want to achieve specific goals they have to exert an influence on nature. In contrast, in societies where externally-directed cultures prevail, people are doubtful about the level of their impact on nature. They believe that it is necessary to work with nature to attain objectives, because they may

not have enough control on it. People in internally-directed cultures retain determined personalities (Behrens, Alfredo, 2009). This feature is invaluable in running effective negotiation and management processes. So, we expect that internally-directed cultures to have characteristics which can positively impact the development of international business.

In the previous pages, we have illustrated how cultural differences affect international business activities. In the following parts, we are going to illustrate how cultural transformation influences the development of international business. As aforesaid, the development of transport and communication means contributed to the appearance of globalization. The globalization processes assisted in the spread of knowledge which later helped in raising people's awareness. In many societies, rising consciousness led to a transformation in culture. Many concepts and values were changed due to this cultural transformation. This alteration influenced societies' members attitudes and behaviors. Likewise, contemporary studies assisted in the introduction of new theories to develop people's attitudes and behaviors. In the next paragraphs, we are going to show how these developments affect the cultures of some societies.

Globalization assisted in the development of humans' behaviors. It contributed to the promotion of education (Quan and Reuveny, 2003, p. 34). It helps in forming new theories which are meant to improve individuals attitudes. Decent education inspires broad-minded attitudes and eases communication (Suárez-Orozco and Desirée, 2009, p.69). So, globalization may influence people's behaviors in many ways. It can impact levels of power distance index in some societies. It may change societies' perception to aspects as gender roles, prioritization of interests, avoiding uncertainties, time horizon and satisfaction of basic and natural human desires. Change may also occur in societies' adherence to rules as laws developed largely in recent times. Alteration may possibly happen in individuals' willingness to express personal feelings and their desire to link their work life to private life. Globalization may also influence societies' relationship with time and their attitudes towards nature.

As aforementioned, globalization processes can contribute notably to the change of many aspects in the cultural environment. They assist in the promotion of education, thus improving people's attitudes and behaviors. The development of humans' behaviors may possibly assist in conducting perfect communication, negotiation and management processes. Yet, it can similarly imposes some challenges on international business. As earlier shown, economic globalization contributed to the increase of immigration processes worldwide. Cultural globalization processes assisted in increasing individuals' awareness in many parts of the world. Consequently, people's choices and preferences change constantly as fashions regularly differ. Therefore, international business need to think of a model to adopt, in order to be able to deal with changes in the human and cultural business environment.

Conclusion:

Societies sought to enhance the conditions of their life. This sought had contributed to the improvement of human environment. Progress in human environment impacted clearly cultural environment. Change in human and cultural environment affected business. Improvement of life conditions assisted in growing population's number. This growth promoted trade as merchants sought to meet people's needs and gain more profits. The establishment of settlements and the tendency of societies members to settle in these towns promoted the provision of services such as healthcare and education, consequently contributed to the growth of population in these areas. Population density in one place is one of the most important factors affecting development of international business. It impacts the quantity and quality of commodities offered and services delivered. Therefore, it absolutely affects the expansion of business activities.

Globalization processes affected ethnic composition in many areas. People from different parts of the world move to other places where they secure jobs. Alteration of ethnic composition may lead to alterations in inhabitants needs and desires. Globalization processes also contributed to the raise of individuals' awareness as opportunities for education have increased significantly. Changes in preferences and raise of people's awareness may force firms to modify their plans, thus influence the development of international business. Globalization processes have led and still leading processes of cultural transformation. Differences in cultural environment impact the development of international business in many ways. Cultural environment differences can assist firms in finding suitable business plans. Cultural differences may also slow down international business development pace.

National and organizational cultural differences impact the processes of communication, negotiation and management, thus affecting international business development. Cultural values dictate manners that people use to interact with others and impact the approaches that individuals use to perform certain tasks. Low power distance societies allow discussions, thus promoting the development of international business in contrast to societies where power distance index is high. Characteristics of both individualistic and collectivistic societies stimulate the development of international business as they support successful communication, negotiation and management processes. Feminine societies are characterized by flexibility which assist in conducting effective communication, negotiation and management processes. Therefore, characteristics of feminine societies can encourage the development of international business.

High levels of uncertainty avoidance index assist in running effective communication, negotiation and management processes, thus support the development of international business. Relying on knowledge, members of long-term oriented cultures tend to make rational decisions to attain long-term benefits. Such attitudes help in leading efficient communication, negotiation and management processes. In contrast to restrain societies, indulgent societies have a positive influence to the development of international business as they encourage the freedom of speech, debate, dialogue and feedback in communication, negotiation and management processes. In the universalistic culture, Individuals tend to keep their promises and to be consistent. Such attitudes promote the

development of international business as it encourages effective communication, negotiation and management processes.

In neutral cultures, individuals place little importance to emotions. Society members take direct approaches to the point. This trend assist in leading effective communication, negotiation and management processes. Diffuse culture are distinguished by strong relations among business partners. People who belong to diffuse cultures give emphasis to relationships. They often meet together after working hours. During such meetings, businessmen can deliberate mutual business interests. Individuals who belong to specific cultures emphasize work objectives. They tend to be direct, precise and transparent. Both cultures have features which can assist in leading effective communication, negotiation and management processes. Achievement cultures recognize and reward appropriate knowledge and performance only. Thus, they stimulate the development of international business in contrast to ascription cultures.

Societies' relationship with time significantly impacts the development of international business. In sequential cultures, individuals place a high value on planning. They prefer to plan, to stick to plans previously set and to perform one task at a time. They are characterized by their punctuality, systemization and preference to meet deadlines. In synchronous cultures, people are likely to complete several tasks at once. Equally, they seek to be punctual and to meet deadlines. However, they are flexible and can accept changes in times and plans easily. So, both cultures have characteristics which can support the development of international business. In contrast to individuals who belong to externally-directed cultures, people from internally-directed cultures' believe that they can exert influence on nature. Such a characteristic may reveal a determined personality that can administer perfect communication, negotiation and management processes.

The development of transport and communication means contributed to the appearance and spread of globalization. Globalization processes assisted in the spread of knowledge which assisted in raising people's awareness and changing some values. Values' alteration influenced societies' members attitudes and behaviors. It affected aspects such as levels of power distance index, perception to gender roles, prioritization of interests, uncertainty avoidance, time horizon and satisfaction of basic and natural human needs. Changes may equally occur in the adherence of societies to rules. Alteration may happen in individuals will to express personal feelings and to link their work life to private life. Shift of value may also influence societies' relationship with time and their attitudes to nature. Though, it may assist in increasing people's awareness. Yet, it imposes some challenges on international businesses as people's desires frequently change.

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Regulation and Culture Change in the Process of Europeanisation in Neighbor Economies: The Case of Competition Regulation in Moldova

Theodore KOUTSOBINAS¹, Rodica CRUDU²

Abstract

International economic relations are increasingly governed by trade agreements that give rise to regional associations. In this context, main socio-economic paradigms expand and, as a result, processes such as Europeanisation in the case of European Union emerge. A key foundation of Europeanisation is the adoption of regulation according to EU acquis by ascending member and partner countries. Besides the prospects of massive adoption of regulation and application of related enforcement, an important mechanism for paradigm expansion is the implementation of culture change in the regulation framework. The paper discusses Europeanisation in the light of the theory of institutional culture change as a planning and public policy instrument. The impact of institutional cultural change is examined in the context of regulation, by using as a special case the competition framework. The advantages and difficulties of promoting competition culture are discussed in an international context and with regard to transition economies subject to Europeanisation, taking developments in Moldova as a case-study. The main finding is that culture change implementation must be incorporated into the strategic planning of regulatory authorities to mitigate the risk of possible policy erosion or bottlenecks.

Keywords: Culture change, Europeanisation, regulation, competition, awareness

1. Introduction

During the last two decades, there has been a growing interest in the notion of Europeanisation. This concept refers to the influence of the policies of European Union on national policies, activities and norms. Europeanisation is explicitly a framework-dependent process, which varies in relation to different domestic practices and responses. Being based on an asymmetric relationship with domestic policy-making, the Europeanisation does represent a process that is related to the realm of high-level decision-making (Berna, 2013), a process by which domestic policy areas become increasingly subject to European policy-making” (Bürzel, 1999: 573-596). Therefore, Europeanisation is a process of increasing interference between the national and European realms of policy-making.

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Europeanisation of national interest groups tends to transform the political culture of interest groups in the direction of their playing a more proactive role in national policy making (Fink-Hafner, D., Hafner-Fink, M. and Novak, M., 2015). Accordingly, the Europeanisation of planning is a planning culture that implements institutional culture change. The latter is now evident in the field of the promotion of regulation to couple enforcement activities on the basis of sound legal and economic principles. This promotion takes the form of advocacy, which refers to activities conducted by the regulatory authority to support the creation of market liberalization environment for economic activities by means of non-enforcement mechanisms. Those processes operate mainly through the relationships of the regulatory authority with other governmental entities by increasing the awareness of stakeholders and the public about the benefits of adopting the regulation framework towards the well-functioning of market economy.

This study develops a framework to assess the potential of institutional cultural change in the area of regulation of transition economies of Eastern Europe, which are not members of the European Union. For a coherent analysis of institutional culture change in the area of regulation, in which Europeanisation plays an important role, the nature of the choice-problem starts with an analysis of those economies which do not have yet the capacity required for an efficient implementation of regulation. Besides enforcement, regulatory authorities adjust their behaviour in a framework in which there are answers to the following questions: (i) How institutional culture change impacts awareness and the behavior of stakeholders in the regulations process? (ii) Is this institutional culture change sufficient to develop a new regulation culture? (iii) If this is not always the case, what are the dangers that impede institutional culture change? (iv) Therefore, can we develop policy proposals that enhance the institutional capacity of culture change by regulatory authorities in transition economies?

The present paper is structured as follows: in the first sections, Europeanisation is discussed as a manifestation of paradigm expansion requiring culture change; next, we develop a methodological inquiry on the benefits and the perils of culture change. This discussion is utilized to elucidate the potential of institutional culture change as a planning instrument for national and regional purposes. In the next sections, the application of institutional culture in the area of regulation is introduced. A case-study is developed in relation to the application of competition culture in a transition economy, such as in the Republic of Moldova, in reference to international and mainly EU practices applied for the promotion of the competition framework. The paper concludes with important findings that point out to the need of incorporating institutional culture change in the strategic process of regulatory authorities.

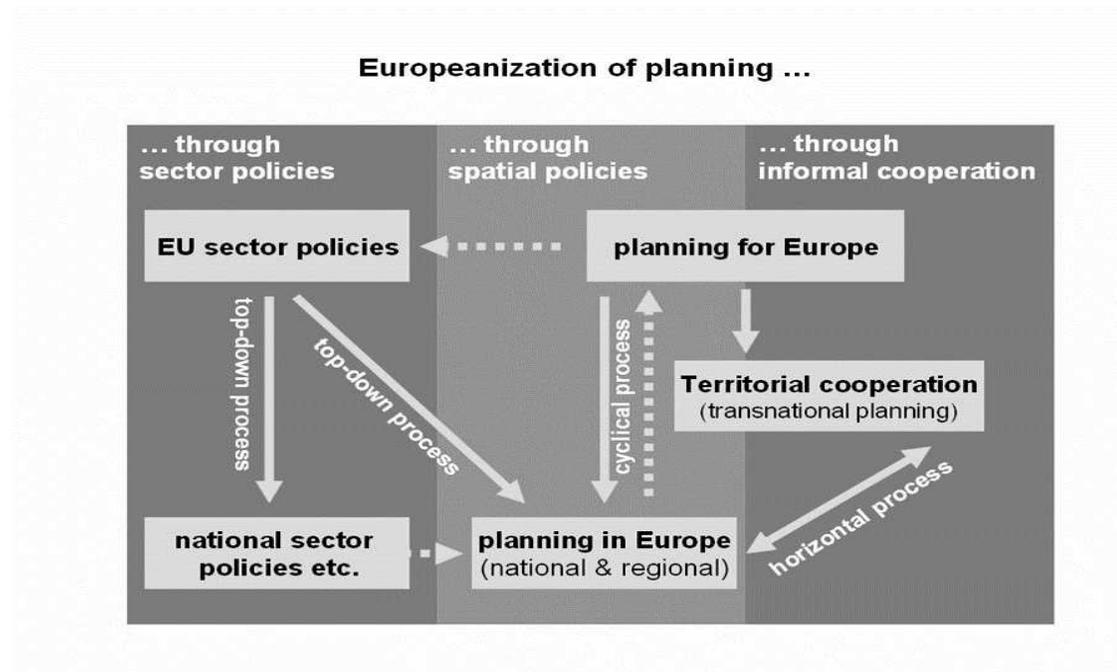
2. Europeanisation: An Episode of Culture Change

According to Featherstone (2003, p. 4), Europeanisation manifests itself in degrees and its spatial process is dynamic, incremental, irregular, and uneven over time. Those asymmetric impacts are profound, but not necessarily permanent or irreversible. Featherstone (2003) developed a taxonomy of the meaning of Europeanisation. In this typology, alternative conceptions of Europeanisation include: (a) a historic process, (b) an

international cultural diffusion; (c) an institutional adaptation; (d) an adaptation of policies. Europeanisation is an aspect of a wide-ranging course because while it is a historic process that involves the export of European expertise, social norms, cultural beliefs and values and actual behavior of agents, it is also a manifestation of “increasing transnationalism” (Mourato, 2011). The latter refers to the diffusion of cultural customs, beliefs and, ultimately, cultural identities. On the other hand, the national objectives of institutional adaptation emerge as a reaction to requirements arising from a possible EU membership. In this context, the institutional adaptation of methodologies and shared principles entrenched in the EU policy framework is eventually incorporated in domestic (national or regional) procedures (Radaelli, 2003, p. 30) of partner countries.

Europeanisation can occur either through a firm compliance to EU regulation, or through soft harmonisation and learning. For example, and in reference to the first type of practices, Bache and Marshall (2004) view EU sectoral policies as being developed on the basis of a ‘direct’ Europeanisation of national planning in areas such as the environment, agricultural policy, regional development and social cohesion (e.g. EU environmental policy, CAP, etc.), or from ‘indirect’ spill-overs in policy areas, such as the EU competition and state aid policy. Alternatively, soft Europeanisation through harmonisation and learning occurs through network governance at EU level and constitutes the foundation of several major EU initiatives (Böhme and Waterhout, 2008). Thus, the Europeanisation of planning involves both EU sector policies, spatial policies and informal cooperation, which first are consolidated at the EU policy process and then are incorporated into regional and national contexts (see Waterhout et. al., 2009). Figure 1 below demonstrates this process:

Figure 1. Categories and Dynamics of the Europeanisation of Planning



Source: Böhme & Waterhout (2008)

Furthermore, Böhme and Waterhout (2008) proposed a matrix that relates the means and effects of the Europeanisation of planning (Table 1). This variable conception of planning processes implies a ‘theory of spatial planning in Europe’, which generalizes desirable processes in a transnational context (Gualini, 2005, p. 3).

Table 1. Towards a Typology of the Europeanisation of Planning

Effects → Means ↓	Long-Term Influence		Short-Term Influence	
	Self-perception and position in Europe	Laws, practices, procedures, standards	Terminology and concepts	Activities caused by the influence of the EU
Implementation of directives and regulatons	Environmental directives in the long run	EU regulations in various sectoral fields, Structural Funds regulations	Formal terminology put down in regulations	Application of EU directives in general
Use of EU funding as incentive	ESDP application in INTERREG	Structural Funds Organisational learning through programs such as INTERREG, LEADERS	Structural Funds, INTERREG	EU co-funding, infrastructure projects, INTERREG
Influenced by a (hegemonic) discourse set at the European level	ESDP application, ESPON use	ESDP application at national level in rare cases	ESDP application, ESPON use	

Source: Adopted from Böhme and Waterhout (2008)

As it clearly represented in the table1, the Europeanisation process is largely supported by the 3rd pillar of the cohesion policy “European Territorial Cooperation”. In this context, Clark and Jones (2009) support the idea that the EU remains the sponsor of the Europeanisation of planning and if ever the initiatives for the EUropeanisation of planning were to resume, the capital thus generated would reap its benefits (Faludi, 2014).

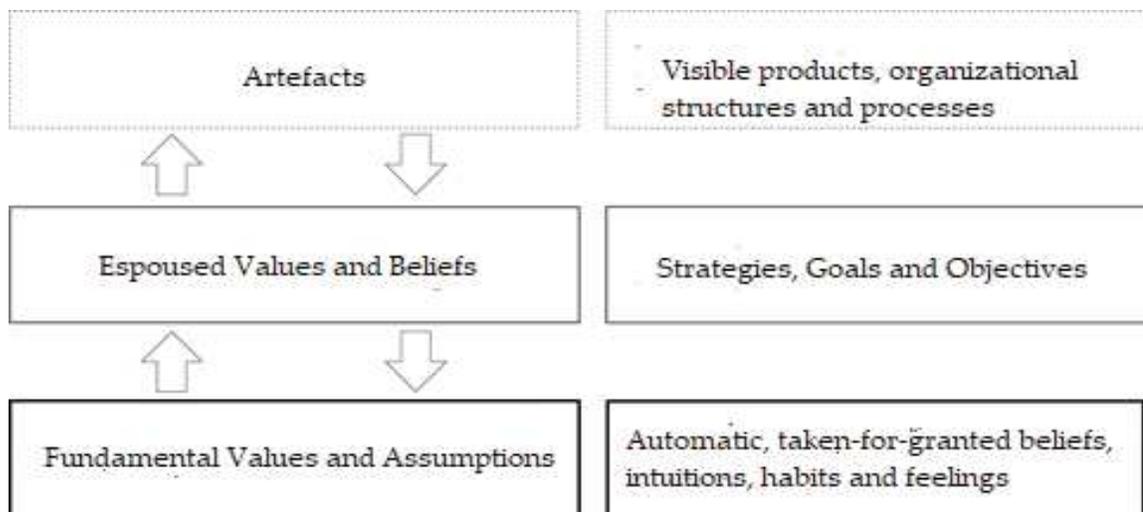
3. The Impact of Culture Change

Culture change is a rather new element in contemporary public policy and planning. There are several distinct conceptualisations of culture change, such as those been proposed, for example in planning (e.g. Knieling and Othengrafen, 2009) and in public policy (Knott et.al, 2008). Moreover, there are several variant ways through which culture change can be accomplished. As Lovell (1994) proposes those alternative types of change include:

- 1) Change by exception, which involves temporary initiatives and produces unsustainable outcomes;
- 2) Incremental change, which is an evolutionary process in which stakeholders may be ignorant of the gradual change that takes place;
- 3) Pendulum change, which is described by sharp alterations between alternative objectives, initiatives and approaches towards decision-making; and,
- 4) Paradigm shift, which results in a substantive transformation of the fundamental values, norms and practices underlying a given culture.

According to Shaw (2006; 2007), the causes of culture change and the alternative ways through which it takes place must be examined before an analysis of its possible implementation takes place. In this context, Schein (1992) had proposed earlier a three-tier culture structure (figure 2).

Figure 2. Elements of Culture Change



Source: Schein (1992)

If the relationship between any of those components change, then a different process of culture change takes place (Shaw, 2006, p. 8). Alternatively, there are many circumstances under which culture change can weaken or fail. On the basis of the work of Harris and Ogbonna (2002), Shaw distinguishes between eight such undesired outcomes (Table 2):

Table 2. Unintended Consequences and Difficulties of Culture Change

Typology of Unintended Consequences	Description of Processes	Adverse Outcomes
Ritualisation of culture change	Being complacent that culture change is a slow, gradual and continuous process	The culture change process becomes ritualized
Hijacking the process	The culture change agenda is compatible with the aspirations of a particular group	The culture change plan and implementation is manipulated to a certain extent
Cultural erosion	The espoused values of culture change agenda may be eroded by subsequent events.	This process results in the erosion of cultural change
Cultural reinvention	Older working practices may be resistant to culture change	While appearing new, espoused values and attitudes may hide the prevalence of older working practices
Ivory tower culture change	The application of culture change indicators is not comprehensive enough to respond to the manner in which the system is working in practice.	Culture change may be divorced from the organisational reality, or may be incapable of meaningful implementation
Inattention to symbolism	There is a evidence of organisational myths, or a lack of attention to symbolic details	This outcome may have a negative impact on the strength and breath of cultural change.
Uncontrolled efforts	Mixed messages coming from the centre	This feature may render difficult to stakeholders to understand the real aspirations of the culture change initiative
Behavioural compliance	People are passively doing as they are told	Change of activities may be witnessed in the work practices without resulting in a change of values or attitudes

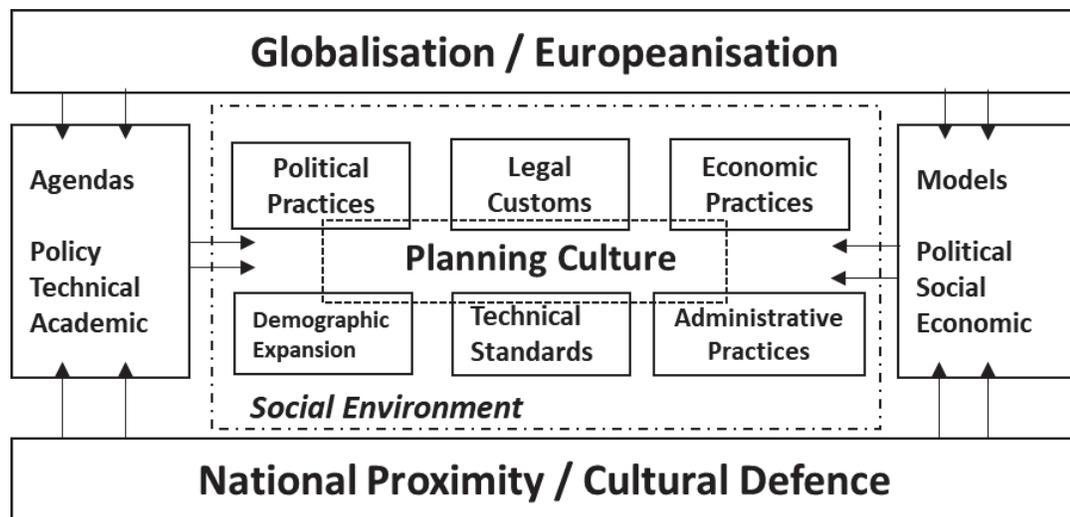
Source: Adapted from Harris and Ogbona (2002) and Shaw (2006, p.8) and modified according to authors' specifications

Furthermore, when culture change loses its steam an important consideration is resistance to cultural change. This resistance is grouped into three main classes (Martin, 1999):

- (a) A culture of complacency, when there is no impetus for change;
- (b) A culture of ineffectual conservatism, which refers to transitory and unsustainable initiatives for culture change;
- (c) A culture of compliance, in which organizations and stakeholders comply to the initiative of culture change in a superficial and, often, devious way.

Overall, the forces of resistance against culture change are strong because there is a multiplicity of paths in which change proves uncertain or, eventually does not happen. Nevertheless, interactions of culture change are, to a large extent, the practical outcomes of previous activities, such as the use of innovation as a locomotive of change and of operationalisation instruments, such as training and evaluation. Those interactions demonstrate the relevance of socialisation and the impact of behavioural change of participants for culture change.

Figure 3. Key Contextual Influences in Planning Culture



Source: Adapted from Knieling and Othengrafen (2009) and Mourato (2011) and modified according to authors' specifications

While Knieling and Othengrafen (2009) underlie the importance of Europeanisation and globalization as key contextual influences in planning culture, the analysis of Martin (1999) signifies the possibility of national proximity (i.e., national peculiarities in relation to geopolitical, military, religious and traditional cultural forces that resist international forces through cultural defense. This results in a modified version of their approach, which is presented in figure 3.

Finally, one should take into consideration the mechanisms of reproduction, which are essential methodologies that must be sufficiently powerful to support culture change. A representative example of those mechanisms is described below in table 3.

Table 3. Mechanisms of Institutional Reproduction

	(a) Utilitarian explanation	(b) Functional explanation	(c) Power explanation	(d) Legitimation explanation
Mechanism of reproduction	Institution is reproduced through the rational cost-benefit assessment of actors	Institution is reproduced because it serves a function for an overall system	Institution is reproduced because it is supported by an elite group of actors	Institution is reproduced because actors believe it is morally just or appropriate
Potential characteristics of institution	Institution may be less efficient than previously available alternatives	Institution may be less functional than previously available alternatives	Institution may empower an elite group that was previously subordinate	Institution may be less consistent with the values of actors than previously available alternatives
Mechanism of change	Increased competitive pressures: learning process	Exogenous shock that transforms system needs	Weakening of elites and strengthening of subordinate groups	Changes in the values or subjective beliefs of actors

Source: Adopted from Mahoney (2000) and Mourato (2011).

Obviously, the above table demonstrates that a mix of approaches is required with an emphasis on the utilitarian and legitimization methodologies to support learning and changes in values and beliefs that relate to culture change.

4. Institutional Culture Change

The Europeanisation of planning is a planning culture that implements institutional culture change. According to Vettoreto (2009, p. 189), a planning culture is the way in which societies manage to institutionalize planning practices at different levels. Those activities are wide-ranging as they include values, methodologies, rules, professional practices, preferred attitudes towards knowledge, and relations between institutions and stakeholders.

Here, it is important to relate the institutional culture change with the planning policy process. An institution is a solidified outlet of objectives, rules and activities through which a conventional way of behavior through is manifested so that social objectives are accomplished (Parsons, 1982). As such, it is an important aspect of the

society. The process of institutionalization offers value, legitimization and permanence to those procedures and activities. Culture change facilitates the process through which institutions become legitimate and steady organizations. The presence of effective institutional interventions implies that solid cultural change has also taken place beforehand. On the other hand, institutions in the sociological tradition also embody symbolic values. The latter characterize them with cultural meaning (March and Olsen, 1989) that can help form the attitudes of stakeholders. Thus, culture change takes place, among other forces, through institutional culture change.

Overall, there are several obstacles to planning of culture change. Those obstacles include the absence of a community culture at large that values planning, absence of planning expertise, difficulty of coordination among stakeholders and firmness regarding the procedures for planning. Furthermore, individuals or stakeholders, such as companies, are not a uniform group. As a result, they do not assume the same sense of responsibility in sharing the vision of planned outcomes. In this respect, the question which arises is how Europeanisation can generate a European model of society through public policy? This question relates to the identification of forces that that can help so that this objective is achieved. Transparency and broad participation of stakeholders on the basis of adopting the values and norms of culture change are important aspects of the process. In this regard, despite the crucial intervention of the state and the dynamic involvement of planners, the issue of mobilization of stakeholders for culture change remains open.

5. Regulation and Culture Change: The Example of Competition Culture

Institutional cultural change is now evident in the field of the promotion of regulation to couple enforcement activities on the basis of sound legal and economic principles. For example, in the area of protection of competition, the establishment of competition culture is viewed as one of the key aims of competition advocacy. The latter is defined as ‘the awareness of economic agents and the public at large about competition rules’ (ICN, 2015). This awareness includes various stakeholders such as the business community, other governmental agencies, academia and society as a whole.

Competition culture comprises a diverse set of factors that determine individual and/or group behaviour in the sphere of market competition and competition enforcement. These include knowledge, experience and perception. In defining competition culture, it is worth reflecting on the instrumental goals that make competition desirable. These include freedoms inherent in a competitive free market economy that allow individuals and firms to harness their creativity, passions and ambitions in pursuit of bettering their welfare and the welfare of others.

According to the International Competition Network (ICN), a definition of competition culture is the following:

“A set of institutions that determine individual and/or group behaviour and attitudes in the sphere of market competition. These are influenced by wider social institutions and public policy choices and include customs impacting the degree of business competition and cooperation within a jurisdiction” (ICN, 2015).

The behaviour of the public and stakeholders is influenced by the collective action of those institutions with regard to protection of competition and consumer welfare. Yet,

this action is variable as there are different features and public policies across countries. In general, transition economies may be characterized by a more regulatory approach, in which there is greater state involvement in the running of markets and where markets are highly concentrated. This consideration demonstrates that what may be considered a 'strong competition culture' in one jurisdiction may not be feasible or appropriate in another.

A fundamental approach is that strong competition culture should include a good understanding or knowledge by stakeholders regarding the fact that certain behaviours distort competition to the detriment of consumers and the wider economy, even if it is unrealistic to expect all members of the constituent groups to have a detailed understanding of the intricacies of competition law and its enforcement.

The 2015 ICN study found that competition culture was perceived as weaker within developing and transition economies, especially where: competition regulation had only been very recently adopted; where courts were inexperienced with competition matters; where there was a lack of acceptance of competition principles by authorities and economic agents; and where there were strong interventionist policies. On the other hand, competition culture was stronger where: competition agencies had participated in regulatory reform and the privatisation process; there was an experienced competition agency; competition cases attracted significant media coverage; where there were specialist competition tribunals, interaction with universities and publication of decisions and case studies. Competition agencies support competition culture in various ways, including implementing behavioural remedies in enforcement as a learning process, networking with other government bodies, advocacy activities to make stakeholders and consumers aware of the advantages of market competition and frequent interaction with media and specialists, including lawyers, economists and academics.

6. Case-Study: The Competition Framework in Moldova

A functioning framework of competition policy and law was established in Moldova in 2007, when the Parliament approved the “National Agency for the Protection of Competition” (NAPC) as a further step to modernise the up-to-then competition policy and control system. As part of the institutional strengthening of the NAPC, its constitution was revised and it became the Competition Council in 2012. The competition law was adopted by the Moldovan Parliament on July 11, 2012 and came into force on September 14, 2012. Since its establishment, the Competition Council has adopted also series of regulations, which elaborate in more detail the EU rules and regulations. During the last years, the Competition Council benefited from several EU and World Bank support projects to enhance its capacity-building objectives.

In the Republic of Moldova, there are also other specific regulators, which are active on various markets, such as the National Financial Markets Commission, which holds competences to regulate the behaviour of professional participants on the non-banking financial markets, the National Electronic Communication and Information Technology Regulator Agency, the National Energy Regulator Agency, etc. Investigation of these specific sectors requires additional knowledge and cooperation among the

specialized agencies. In this respect, the Competition Council holds a central role in the overall protection and promotion of competition.

The main strengths of Moldova's competition sector are the established legislation and the solidification of the institutional environment. However, with the exception of some recent activities, there was not solid track record by the Competition Council in conducting complex market studies. Finally, the promotion of pro-competition culture among certain stakeholders in Moldova was weak in the past.

The Strategic Development Program for 2012-2014 (SDP) was the basic document for the Competition Council to carry on the strategic planning system at the authority level for the years 2012-2014. Currently, the National Action Plan for the implementation of the RM-EU Association Agreement 2014-2016 is a main reference for the development of the policy framework.

On the 24th November 2010, a framework for a Comprehensive Institution Building Programme (CIB) was signed by the EU and the Government of Moldova. The institutions identified in the CIB framework were included in three clusters: i) public administration, ii) rule of law, human rights & freedoms and iii) preparing for a Deep and Comprehensive Free Trade Agreement (DCFTA). Competition was part of the third cluster of the CIB - preparing for (and now implementing) the DCFTA. The EU-Moldova Association Agreement (AA), which was signed in Moldova in June 2014 includes a DCFTA. According to the National Action Plan for the implementation of the RM-EU Association Agreement 2014-2016, there are important provisions for the competition sector related to the strengthening of the legislation and regulation of competition sector, capacity building, training and market studies of the strategic sectors of the economy. Finally, an important provision relates to the promotion of the competition culture (through training, press conferences, round tables, etc.); and, to an increase of activities in enhancing public information about anticompetitive practices.

With regard to long-term strategic objectives, the recently adopted National Development Strategy "Moldova 2020" highlights seven development priorities. The one that directly relates to competition is the priority of improving the business climate, promoting competition policies, streamlining the regulatory framework and applying information technologies in public services for businesses and citizens. Other priorities, which possibly interface to a lesser extent with the competition sector are the following: reducing financing costs by increasing competition in the financial sector and developing risk management tools; increasing public investment in the national and local road infrastructure, in order to reduce transportation costs and increase the speed of access; reducing energy consumption by increasing energy efficiency and using renewable energy sources; increasing the quality and efficiency of justice and fighting corruption in order to ensure an equitable access to public goods for all citizens.

7. Competition Advocacy and Gradual Culture Change in the Competition Framework and Developments in Moldova

Competition advocacy refers to those activities conducted by the competition authority related to the promotion of a competitive environment for economic activities by means of non-enforcement mechanisms, mainly through its relationships with other

governmental entities and by increasing public awareness among stakeholders of the benefits of competition.

A focal study on competition culture was the EC DG Competition Survey, which analyzed the promotion of competition culture and policy convergence at the international level (EC, 2014). Following the methodology of DG Competition of the European Commission, a qualitative barometer study was developed in order to obtain feedback on perceptions of the quality of its activities from its most important professional stakeholders. For the EC DG Competition study, a total of 120 in-depth interviews lasting on average approximately 75 minutes were carried out, face to face wherever possible. The main conclusions of this survey do refer to the fact that the majority of participants in four stakeholder groups were very aware of DG Competition's activities to promote a competition culture and considered that it is doing good work. The mean score for the promotion of competition culture was high and sets a quantitative benchmark for national competition authorities towards which they may like to improve. The vast majority were aware of DG Competition's work to promote competition culture and policy convergence at international level and thought that it was doing a good job. Despite this acknowledgment, there was an expression of a strong need for improvement of competition culture. It was recognized that penalties and fines act as deterrents, but are not sufficient to bring about a change in culture. Finally, the survey findings point out to the need for more enhanced consultations with think-tanks and experts, "outreach programmes", engagement of local speakers or trainers and promotion of competition culture in general among the public (EC, 2014).

A Competition Culture Survey was conducted among forty-nine ICN Members (competition authorities) in 2013/2014 (ICN, 2015). The survey questioned covered a variety of factors: defining competition culture; competition culture among legislators, government officials, journalists, lawyers, the judiciary, large businesses, small and medium enterprises (or SMEs), and members of the general public; reporting in the media; the existence of consumer associations; and the presence of academic centers. One limitation of the survey study should be noted, namely, that the responses only came from competition agencies, not from the "stakeholders" that are discussed within this survey.

The survey covered the perceptions of the competition authorities in a variety of factors: defining competition culture; competition culture among legislators, government officials, journalists, lawyers, the judiciary, large businesses, small and medium enterprises (SMEs), and members of the general public; reporting in the media; the existence of consumer associations; and the presence of academic centers. The advantages of this methodology are two: First, the questions are stratified (separate) across the different types of stakeholders. Secondly, both the aggregate and, more importantly, the own responses of the national regulators can be utilized as a fundamental benchmark to compare the perceptions of the stakeholders. For example, the evidence-based analysis shows that competition awareness is substantially higher in the corporate sector, and especially among bigger companies than SMEs, than in the judiciary or the public.

A number of important findings and conclusions were drawn from this report. First, competition authorities should aim to engage with the legislature or regulators as laws and regulations are being drafted and before they are finalized or voted into law. A variety of

tools to create and maintain lines of communication and cooperation with government departments must be identified. Tailor-made training for judges is reported as the most effective way of improving the judiciary's awareness of competition law and economics. With respect to professionals in the competition area, engagement in formal and informal dialogue with the legal community during consultations, or significant changes to the legal enforcement framework were recommended. Competition culture may be weaker among SMEs (as compared to larger firms) that may not be familiar with competition laws or have the resources to consult competition law specialists. Media engagement, public awareness campaigns and published material appear to be the most effective way of improving competition culture among members of the public. More specifically, engagement with media reporting of competition cases is a potential way of strengthening competition culture. Media reports are a common source of information that competition agencies consider. Market sector studies developed by legal and economic scholars is also viewed as raising awareness of competition policy within their jurisdictions.

In most questions, the experience in Moldova in relation to the questionnaire of the Competition Culture Project Report is in line with the average responses of the survey, namely, with a perception of good influence on other organs of the government, average influence on public and, generally, on enforcement procedures and overall practices in case investigation. However, there is a number of areas, in which there is some divergence. For example, on the issue what the media in jurisdiction (Newspapers, Television, Radio etc.) is more likely to report on, in relation to public enforcement of competition law, the average international response is successful competition law cases when the national evidence points out to unsuccessful ones. However, there are cases in which the media covered successfully resolved cases which have a big social impact, such as the case for the bus tickets for international routes. Moreover, on the issue how good would you rate media in jurisdiction at reporting aspects of competition law enforcement, the average international response is good/neutral, while the national situation indicates a weaker performance on the part of media. Furthermore, in contrast to the average response in the ICN study, according to which there are many competition lawyers and specialized academics and judges in the surveyed countries, the national state of affairs in the country is that there are no specialized competition lawyers and academics. Academic research and market studies were not extensively utilized until recently in the analysis and implementation of competition law in legal proceedings. Finally, on the question to rate competition awareness among stakeholders, the median response of the ICN survey was high, while the national situation indicates a lower performance, which constitutes a difference that reflects evidently realities of transition economies. All those considerations indicate that the competition culture process in the competition framework requires further strengthening to avoid future difficulties. The Competition Council has been highly active in promoting competition culture during the last years with the support of EU aid projects. In those activities, while all stakeholders in the competition framework are benefited, there has been noticeable improvement of awareness among media, companies, business associations and professionals such as lawyers.

8. Concluding Remarks

During the last two decades and with a growing number of regulatory authorities promoting the process of culture change among the stakeholders in their regulation framework, the analytical demands as well as the importance of this process have been elevated. The regulation activities, such as for example, those related to the competition or the trade sector constitute a natural platform for the planning of public policies of culture change. Much has been done since the first rudimentary efforts a few decades ago to introduce the promotion of culture change in the regulation domain. An example of progress is that policies of culture change in the relevant regulation sector are included in the mandate of the regulatory authorities. Thus, the area of regulation can provide important lessons for developing effective culture change to other sectors.

European Union is a major force in the implementation of policies of culture change in the regulation sphere. Europeanisation as a process that manifests the influence of the policies of European Union on national policies, activities and norms on other countries through trade association, or potential membership agreements varies in relation to different domestic practices and responses. Therefore, this process has taken place variably either through the strict compliance to regulation, or through soft coordination and learning.

There are many difficulties in implementing institutional culture change in the case of transition economies of Eastern Europe, which fall within the ENP platform of EU. In those countries, the political process is not linear and is characterized in practice by spiral tendencies forward, amidst backlashes in the implementation of strategic initiatives. This is a soft policy environment in which there is the fear that the values of the culture change agenda may be eroded by subsequent events amidst mixed messages by the political process. In such a context, there is the danger that what appears as a gradual and continual process for culture change in regulation can transform to a self-serving ritualized agenda. Our analysis suggests that the only escape from such difficulties can come from incorporating the evaluation of progress of culture change into the institutional strategy in order to control the erosion of policy potential. For this reason, it is worthy to couple the institutional mandate of promoting culture change in a specific regulation field with the incorporation of institutional culture change in the strategy of responsible authorities. This is a mission that both international regulation networks and national regulatory authorities must find ways to implement.

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ON THE ESSENCE AND EFFICIENCY OF PROGRAMME BUDGETING

Andrei PETROIA¹

Abstract

The program budgeting applies to cases where expenditure is classified in the budget by objectives (outcomes and outputs) rather than solely by economic categories (i.e., inputs such as salaries) and organizational category. Performance budgeting (or performance-informed budgeting) refers to a wider set of initiatives intended to strengthen the links between the funds provided and the results achieved through ensuring performance information is used in resource allocation decision making. Program and performance budgeting reforms should, therefore, provide information in a way that informs choices about spending alternatives and should improve transparency and accountability of government. There is no “best practice” approach, more “best fit” and the unique context of each country needs to be considered. It could be noted that some key public finance specialists recommend getting the “basics” right first as a priority. At the end of given research, there is introduced an experience of programme budgeting in Hungary, which has already have good results of its use.

Key words: budget, programme, programme budgeting, budgetary system, performance-based budgeting, effectiveness, efficiency.

JEL Classification Codes: E62, H11, H50, H61, H68, O52.

1. History of programme budget

Program-based budgeting is a budgeting structure where money is distributed by program or functional area and based on the nature of the activities performed by the program. It is common in many state and local governments, but businesses also use program budgeting. Its purpose is to align spending with program objectives.

“Programs” are groupings of government activities in relation to specific government objectives. Program classification applies this principle across all government activities.

A full system of program budgeting (or subsequent proposals such as zero-based budgeting) has not been successfully realized in any country, in large part because of the high information and complex management requirements of such systems (IMF, 2007).

In its "Budget Process - State Budget Process" overview, the State of Idaho Legislature website points out that state budgets have always been a source of political tension, but development and growth in the use of program budgeting has significantly improved state budgeting processes. Program budgeting lays out all organizational

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programs or functional areas and determines how much resources to put into each program area based on the services and production outputs it creates. (Neil Kokemuller, 2017) The name “Programme Budget” is derived from the simple fact that the planning process is organized by program rather than by department of fiscal input or output (Frank B. Dilley, 1966). At present, no standard definition of program budgeting exists. Program budgeting is generally described as a planning-oriented procedure. (Hagen, p.7)

Programme budgeting developed by U.S. president Lyndon Johnson, is the budgeting system that, contrary to conventional budgeting, describes and gives the detailed costs of every activity or programme that is to be carried out in a budget.

Objectives, outputs and expected results are described fully as are their necessary resource costs, for example, raw materials, equipment and staff. The sum of all activities or programmes constitute the Programme Budget. Thus, when looking at a Programme Budget, one can easily find out what precisely will be carried out, at what cost and with what expected results in considerable detail.

This programme budgeting system was first introduced by the then United States Secretary of Defense Robert S. McNamara in the Pentagon in the 1960s. McNamara allegedly wanted to control the many costly weapons development programmes that were plagued by ever-increasing costs and delays. He called this new system the Planning, Programming and Budgeting System (PPBS). The system was taught at the John F. Kennedy School of Government of Harvard University but it evoked little interest except from critics.

This new approach introduced an unprecedented transparency into management operations together with a concomitant precise pinpointing of managers' responsibilities, and so was widely resisted throughout the entire public sector. However, in the eighties, the UN Inspectorate General picked up the idea and recommended that the United Nations use it to improve its performance. A few institutions tried half-heartedly but only the International Atomic Energy Agency (IAEA) went about it seriously and introduced a complete programme budgeting system that is still in place today.

However, over the years, strong opposition by managers and lack of interest by top management as well as member States have taken the sting out of the system and reduced its transparency. A few years later, the Government of New Zealand was the first to introduce it with great success: within a few years it had solved an intractable stagflation problem. More recently, the United Kingdom government discovered it and now, one government after another is following suit. The need to improve public sector and government performance has worked wonders for programme budgeting.(Programme budgeting, Wikipedia)

Program budgeting passed through several distinct evolutionary periods. The first was the developmental period, which was borne out of the need for a national budget. As difficult as it may be to believe, the budget practices of federal institutions prior to the Budget and Accounting Act of 1921 were such that it was virtually impossible for any appropriating body or the public to know where its money was going (Thomas H. James et al., p.48). The budgeting practice of lumping expenditure had been consistent with the planned purpose of the appropriation. Budgeting procedures basically consisted of revising estimates.

The most significant change in budgeting, which paved the way for program budgeting, occurred in 1907 under the leadership of Frederick A. Cleveland, when New York City's Bureau of Municipal Research adopted this method (William F. Willoughby, p.438).

The second period was a period of control. This period began with the Accounting Act of 1921, creating the Bureau of the Budget and giving the President the responsibility of preparing a comprehensive budget of revenues and expenditures. The purpose of this budget was to provide a means of translating "work programs" into fiscal terms so that each activity could be balanced with other activities and revenues in long-range economic policies, which would take into account past activities and a future program for advanced approval. (U.S. President's Commission on Administrative Management, 1937, p.16)

Contemporary Period. In 1961, Secretary of Defense Robert S. McNamara and his Comptroller, Charles J. Hitch, introduced program budgeting to the Department of Defense (Daniel Seligman, p.117). This was the first time program budgeting had been attempted for an entire agency. A 1964 United Nations report of U.S. budget practices estimated that more than 80% of all U.S. agencies gave cost information in their appropriation requests, providing an effective means for both fund and program control (United Nations, p.2).

Looking back over the history of government and business budgeting, it is remarkable how young is the practice of effective and widespread budgetary control (George A. Steiner, p.44). Program budgeting has only recently come to the public schools. This slow pace tends to conceal the long way that program budgeting has come.

2. Budgeting methods

2.1 Zero Based Budgeting (ZBB)

Zero-based budgeting is an approach to planning and decision-making which reverses the working process of traditional budgeting. In traditional incremental budgeting (Historic Budgeting), departmental managers justify only variances versus past years, based on the assumption that the "baseline" is automatically approved. By contrast, in zero-based budgeting, every line item of the budget must be approved, rather than only changes (Eftychia Avgerinou, 2016). During the review process, no reference is made to the previous level of expenditure. Zero-based budgeting requires the budget request be re-evaluated thoroughly, starting from the zero-base. This process is independent of whether the total budget or specific line items are increasing or decreasing.

Zero-based budgeting, or some modified version of it, has been used in the private and public sectors for decades. In the private sector, the major leap was with its application at Texas Instruments by Peter A. Phyrri (CBSE UGC-NET, p.33). Managers have to build a case for their spending as if no baseline existed- to start at zero.

Resources are not necessarily allocated in accordance with previous patterns and consequently each existing item of expenditure has to be annually re-justified.

Put differently, the purpose of ZBB is to reevaluate and reexamine all programs and expenditures for each budgeting cycle by analyzing workload and efficiency measures to determine priorities or alternative levels of funding for each program or expenditure.

Through this system, each program is justified in its entirety each time a new budget is developed (Chiichii Ashwe, p.6).

Decision units should have the following characteristics:

- A specific manager should be clearly responsible for the operation of the program.
- It must have well defined & measurable impacts.
- It must have well defined & measurable objectives.

There can be 2 types of decision package:

The mutually exclusive decision package; the purpose here is to identify for each decision unit the alternative ways of performing its functions so as to enable management to choose the best alternative. One such alternative will be to abolish the decision unit and not to perform its functions at all.

The incremental decision package; here, each manager identifies different levels of effort (and associated costs) and their impact on the function. i.e. there will be a Minimum Level, below which it would be impossible to perform the function; a Base Level, which reflects the current level of activity; and Improvement Level, which shows the effect of increases over the current level.

The term "zero-based budgeting" is sometimes used in personal finance to describe "zero-sum budgeting", the practice of budgeting every dollar of income received, and then adjusting some part of the budget downward for every other part that needs to be adjusted upward.

Zero based budgeting also refers to the identification of a task or tasks and then funding resources to complete the task independent of current resourcing.

Advantages (Zero-based budgeting, Snapshot-31172.pdf):

- Efficient allocation of resources, as it is based on needs and benefits rather than history.
- Drives managers to find cost effective ways to improve operations.
- Detects inflated budgets.
- Increases staff motivation by providing greater initiative and responsibility in decision-making.
- Increases communication and coordination within the organization.
- Identifies and eliminates wasteful and obsolete operations.
- Identifies opportunities for outsourcing.
- Forces cost centers to identify their mission and their relationship to overall goals.
- Helps in identifying areas of wasteful expenditure, and if desired, can also be used for suggesting alternative courses of action

Disadvantages:

- More time-consuming than incremental budgeting.
- Justifying every line item can be problematic for departments with intangible outputs.
- Requires specific training, due to increased complexity vs. incremental budgeting.
- In a large organization, the amount of information backing up the budgeting process may be overwhelming.

Zero Base Budgeting in the public sector and the private sector are very different processes, and this must be understood when implementing a ZBB process in the public sector. “The use of ZBB in the private sector has been limited primarily to administrative overhead activities (i.e. administrative expenses needed to maintain the organization).” (Pyhrr, Peter A., 1977)

President Carter later required the adoption of ZBB by the federal government during the late 1970s. “Zero-Base Budgeting (ZBB) was an executive branch budget formulation process introduced into the federal government in 1977. Its main focus was on optimizing accomplishments available at alternative budgetary levels. Under ZBB agencies were expected to set priorities based on the program results that could be achieved at alternative spending levels, one of which was to be below current funding.” (GAO, 1997)

According to Peter Sarant, the former director of management analysis training for the US Civil Service Commission during the Carter ZBB implementation effort, “ZBB means “different things to different people.” Some definitions are implying that zero-base budgeting is the act of starting budgets from scratch or requiring each program or activity to be justified from the ground up. This is not true; the acronym ZBB, is a misnomer. ZBB is a misnomer because in many large agencies a complete zero-base review of all program elements during one budget period is not feasible; it would result in excessive paperwork and be an almost impossible task if implemented.” (Peter Sarant, p.3) In many respects the “common misunderstanding” of ZBB noted above resemble a “sunset review” process more than a traditional public sector ZBB process.

Components of a public sector ZBB analysis

In general there are three components that make up public sector ZBB:

1. Identify three alternate funding levels for each decision unit (Traditionally, this has been a zero-base level, a current funding level and an enhanced service level.);
2. Determine the impact of these funding levels on program (decision unit) operations using program performance metrics; and
3. Rank the program “decision packages” for the three funding levels.

Importance of performance measures

Performance measures are a key component of the ZBB process. At the core, ZBB requires quality measures that can be used to analyze the impact of alternative funding scenarios on program operations and outcomes. Without quality measures ZBB simply will not work because decision packages cannot be ranked. To perform a ZBB analysis “alternative decision packages are prepared and ranked, thus allowing marginal utility and comparative analysis.”

Traditionally, a ZBB analysis focused on three types of measures. “They (federal agency program staff) were to identify the key indicators to be used in measuring performance and results. These should be “measures of:

1. effectiveness,
2. efficiency, and
3. workload for each decision unit.

Indirect or proxy indicators could be used if these systems did not exist or were under development.

2.2 Program Budget

The program budget differs from the traditional line-item approach to preparing, reviewing, and presenting the budget. Rather than focusing on what a community buys (personnel, commodities, etc.), a program budget focuses on the expected results of services and activities that you carry out. The emphasis is on the attainment of long-term, community-wide goals. In a program budget, you link revenues and expenditures to multiyear programs that meet your municipality's goals, objectives, and strategies. Importantly, a program budget identifies the anticipated results and outputs of these investments.

What is a program? A program classifies all activities in a municipal government by their major purpose and contribution to overall community goals and objectives. A program structure is a way for you to organize all municipal activity into a hierarchy of functional categories. For example, your municipality may establish a "Center City Economic Development Program."

In large municipalities, programs may cut across organizational lines. Your economic development program may include the activities of several municipal departments such as communal services, housing, and water and sewer. In smaller jurisdictions, your programs may be limited to the activities of a single department. A communal services department may have a "Neighborhood Street and Sidewalk Improvement Program."

Ideally, a program should be clearly delineated, have a minimum overlap with other programs, be results oriented, and lend itself to quantification. You will carry out planning, budgeting, administrative control, and reporting within the framework of this program structure.

What Are the Advantages of Program Budgeting? The benefits of using this systematic approach to budgeting include:

- Producing a transparent budget. A program budget presents budget investments in a format that enhances community understanding of the purpose and nature of the services you will provide.
- Focusing attention on community goals, needs, and capabilities. With a program budget you can bring budget investments in line with community objectives, anticipated or desired growth, priorities, and financial capabilities.
- Achieving maximum use of the citizens' taxes. The planning and management focus of a program budget establishes an informed basis upon which you can make decisions, thus helping you avoid costly mistakes. A program budget guides you in making sound annual budget decisions.
- Serving wider community interest. A program budget, once approved, keeps the citizens and business community informed about community programs and activities that affect their lives and enterprises. It also provides information on the results of budget investments.
- Encouraging a more coordinated and efficient government administration. Using a program budget to coordinate budget investments of municipal departments will result in more efficient use of limited resources and will limit conflicts or overlap among projects.

- Maintaining a sound and stable financial program. By programming investments over many years, a program budget can limit the burden that these investments place on the municipal budget. Where there is ample time for programming, you can select the most economical means of designing and financing each project in advance.
- How Is a Program Budget Different from a Performance Budget? Both types of budgets use indicators to measure performance (see the training manual on performance measurement), but they have a different focus. A program budget emphasizes the benefits that citizens gain from municipal expenditures, while a performance budget emphasizes management efficiency in expenditure allocations.

Steps in Developing a Program Budget

Step 1: Establish Goals

Goals represent the ends that a program or an organization (e.g., municipality or municipal department) wants to attain. They define the desired outcome or end result and are typically general in nature. Your goals should be definitive and concise. For example, a municipality may articulate the following goal: “Enhance the Economic Viability of the Central Business District.

Step 2: Establish Objectives

Objectives represent the specific results desired within a fixed period of time. They should specify what is to be accomplished, for whom, and by what date. In terms of the budget, an objective represents a targeted achievement for the forthcoming year. Each objective has one or more performance measures (see the training manual on performance measurement)

Objectives should reflect planned achievements in service quality or service level; thus, key words used in stating objectives include increase, reduce, expand, complete, prevent, maintain.

Examples of objectives are:

- “Increase the Number of Residential Housing Units in the Next Fiscal Year by 2%.”
- “Reduce the Number of Leaks in the Water System by 25%.”
- “Expand the Number of Commercial Enterprises in the Downtown by 10%.”

You can develop goals and quantifiable objectives for the activities of individual programs or departments as well as for the entire municipality

Step 3: Prepare a Budget Calendar

The budget calendar establishes the process and schedule your community will follow in developing the budget. The calendar helps you prepare and enact the budget in a timely way. At a minimum, the calendar should indicate the dates when:

- You will distribute budget worksheets, instructions, and guidelines to departments;
- You will prepare revenue estimates;
- You will compile budget requests and summarize them into a single budget document;

- The mayor and the finance and other committees of the general assembly will review budget
- requests and make appropriate adjustments to budget proposals; and
- The general assembly will adopt the budget.

Step 4: Define Roles in Budget Preparation

There are three major administrative roles in the budget preparation process:

- Preparing budget proposals for consideration by the general assembly;
- Explaining current fiscal conditions, fiscal prospects, and budgetary proposals to the general assembly; and
- Implementing the budget enacted by the general assembly and monitoring performance to ensure that programmatic and fiscal policies are followed.

In smaller local governments, one person may be responsible for all these roles. In larger municipalities, a budget officer or chief financial officer may assist the mayor to fulfill these roles.

Step 5: Distribute Forms and Prepare Departmental Budget Requests

The budget officer distributes budget preparation forms and instructions to municipal departments and enterprises. Ideally, this package includes the municipal goals and objectives established in Steps 1 and 2 to guide managers in establishing funding priorities that are consistent with overall municipal priorities.

The people who manage local activities should be involved in the budget process. However, in a great number of cases, budget requests are prepared without spending much time discussing the budget with the department heads that must operate under it.

You should involve department heads in the details of budget development and implementation.

Budget requests for each service should specify what the service is; what level of service has been provided in the current year; what level of service is needed in the budget year; what will happen if the service is reduced, discontinued, or increased; and the cost of service at the requested level. You can convey this information in an informal way, through a formal statement of specific objectives and workload measures, or through presentations of alternative service levels

Step 6: Review the Budget Requests

The mayor and general assembly are in the unique position of reviewing all requests and must thus be prepared to establish priorities in light of major issues or potential fiscal problems facing the local government. Your review of departmental submissions should start by ensuring that proposals are consistent with the budget policies you established at the beginning of the budget process. Typically, the sum of all budget requests will exceed the total of estimated revenues plus any estimated surplus from the current year. Departments and programs will compete for access to limited governmental funding sources.

You will have to make tough choices, but you should make them in the context of your municipality's overall program and fiscal policy.

Step 7: Establish the Role of Citizens

Since the budget is your community's policy tool, you must make a conscious effort to determine what the citizens think about current policies and services, including where

they think services could be strengthened and what levels of priority they attach to various services. Frequently, local officials rely on the perceptions of departmental management or the most vocal citizens to establish budget policy and service priorities. In both cases, the real preferences of citizens may be distorted. You could undertake a more systematic approach to understanding citizens' needs using techniques such as holding hearings on specific budget policies and service priorities.

Another method is to go to the citizens. Explain the kinds of services for which the municipality is responsible. Discuss municipal fiscal and program policies and obtain feedback. As noted below, once the budget document is assembled, make the document available to the citizens.

Step 8: Prepare the Budget Document

The budget document is the final product of a lengthy process, and the quality of the budget depends largely on the quality of that process. At each stage of development, the budget takes on a different form. Proposed budgets are usually the most comprehensive and largest versions, because they contain critical decision-making information. Your adopted or final budget, on the other hand, may be a smaller summary document that you use to communicate final policies and appropriations.

The budget is a decision-making document: it is the basis for important fiscal and policy decisions. An effective document encourages debate and proper consideration of budgetary issues by delineating the issues and informing participants about the implications of specific actions or inactions.

Step 9: Adopt the Budget

Once you submit the proposed budget, and the general assembly (and the general public) reviews it, it will likely undergo more changes until it is adopted by the general assembly.

Adoption of the proposed budget by the general assembly establishes the legal authority for administrative officials to incur expenditures in the fiscal year. The adoption of the proposed budget is the culmination of an exhaustive review of budget proposals by the general assembly and the mayor

Step 10: Execute and Monitor the Budget

The main purposes of budget execution are to make the appropriations authorized in the adopted budget and to monitor spending. The goals of budget execution are to: (1) provide for an orderly approach to achieve budgetary goals and objectives; (2) ensure that funds are expended only on approved activities; and (3) have adequate stewardship over entrusted financial resources.

2.3 Performance-based budget (PBB)

Performance-based budgeting is the practice of developing budgets based on the relationship between program funding levels and expected results from that program. The performance-based budgeting process is a tool that program administrators can use to manage more cost-efficient and effective budgeting outlays.

Today, when the management of money is more important than ever for public and private entities, budgeting plays an enormous role in controlling operations efficiently and effectively. Budgeting in itself is a familiar process to even the smallest economic unit –

the household - but it needs to be divided into two different classes: budgeting for public entities and private entities.

This differentiation is important because public bodies need to go through many processes before moving into the budget execution phase and post-execution analyses; furthermore, the entire process involves the collaboration of different bodies throughout the government. This collaboration is not only for budget preparation, negotiation and approval processes, but also for the spending approval after the whole budget allocation is finalized. Compared to private sector, it is cumbersome.

Another factor is the increasing awareness of the policies of the World Bank in pursuit of restructuring the budgeting and spending processes of developing nations via the World Bank Treasury Reference Model. This new model has led the public sector to understand, digest and adopt a new style.

According to this new budgeting methodology, traditional methods of analyzing and utilizing budget figures are insufficient. In traditional terms, organizations start building up their long-term plans and break those plans into annual budgets that are formed as forecasts. At the end of the year, budget figures are compared with actual results and a simple actual-budget variance comparison is calculated.

Since the analysis is simple, this analysis lacks any sophistication in terms of adjusting similar budget items for forthcoming periods by increasing or decreasing the expenditure estimates. Basically, variance results are generally used for revising monetary amounts for the next planning and budgeting cycle, and also for very simple departmental performance tracking.

This new approach to budget analysis and utilization is many steps ahead of traditional methods. As an example, a governmental project to enhance the social welfare of children in a remote area can help explain the performance-oriented approach. For such projects, which are generally composed of long-term plans, governments decide on objectives and the activities that are required to be accomplished to achieve them. Practical ways of enhancing social welfare of children in a rural area might include increasing the job skills of parents in the area.

In order to achieve such an objective, the government may plan to establish schooling infrastructures in various locations, complete with the necessary equipment, and further plan to assign trainers to those schools for implementing the educational programs. All these activities have a cost aspect and, at this point, long-term plans are broken down into annual budgets that incorporate the monetary figures. Once the long-term plans are accomplished, the traditional way to gauge the effectiveness of this whole project would be to assess the gap between the budget and the actual money spent. However, with the new budgeting approach, the questions to answer are tougher:

- Did we really succeed in enhancing the social welfare of children?
- Did this project cost what we expected?
- Have we done what we should have done in enhancing the social welfare of children?

Peter van der Knaap (2000) from the Ministry of Finance in the Netherlands suggests: "The general purpose of the proposals is to make budget documents and, hence, the budgetary process more policy-oriented by presenting information on

(intended and achieved) policy objectives, policy measures or instruments, and their costs.” Furthermore, van der Knaap explains that this type of budgeting has the following major performance indicators:

- (the quantity, quality, and costs of) products and services (output) produced by government or government services in order to achieve certain effects, and;
- the intended effects of those measures (outcome).

Within this kind of a planning and budgeting setup, the lack of reliable information on the effects of policies emerges as a serious issue. Therefore, it is important to approach the planning and budgeting cycle in a holistic and integrated way, with collaboration across the areas of policy design, performance measures definition and policy evaluation.

This whole framework points us to a newer way of budgeting, the performance-based budgeting.

As explained by Carter (1994) “Performance budgets use statements of missions, goals and objectives to explain why the money is being spent. It is a way to allocate resources to achieve specific objectives based on program goals and measured results.” The key to understanding performance-based budgeting lies beneath the word “result”. In this method, the entire planning and budgeting framework is result oriented. There are objectives and activities to achieve these objectives and these form the foundation of the overall evaluation.

According to the more comprehensive definition of Segal and Summers (2002), performance budgeting comprises three elements:

- the result (final outcome)
- the strategy (different ways to achieve the final outcome)
- activity/outputs (what is actually done to achieve the final outcome)

Segal and Summers point out that within this framework, a connection exists between the rationales for specific activities and the end results and the result is not excluded, while individual activities or outputs are. With this information, it is possible to understand which activities are cost-effective in terms of achieving the desired result.

As can be seen from some of the definitions used here, Performance-Based Budgeting is a way to allocate resources for achieving certain objectives.(Aristovnik, Aleksander & Seljak, Janko, 2009)

3. Features and elements of budgeting systems

There can be shown some features and elements of different budgeting systems (Roscovan Mihai et al, 2010):

- system planning, programming and budgeting;
- program budgeting;
- output budgeting;
- performance based budgeting.

Table 1. Elements of budgeting systems

	Elements
System planning, programming	<ul style="list-style-type: none"> - identifying and examining the goals and objectives for each area activity of government / agency; - analysis outputs / results given in terms of program objectives; - measuring the total costs of the programs, not only for this year, but for several years forward; - formulating programs for a multiannual expenditure; - establish such procedures as part of systematic budget process.
Program Budgeting	<ul style="list-style-type: none"> - grouping of organizational units and functions under the common functions; - identifying functions and sub-functions costs; - choice of outputs / products organizational unit, depending on the costs; <p>Program budgeting remove from the budget process planning functions of PPBS strategic. It requires an interactive process of sharing costs and defining outputs.</p>
Output Budgeting	<ul style="list-style-type: none"> - summing all costs associated with achieving particular product without take account of the number of agencies involved in providing / producing it; - emphasizing formation the total cost, including distribution administrative expenses; - comparing the results obtained with products / services present to measure efficiency and effectiveness.
Performance based	<ul style="list-style-type: none"> - contains all program budgeting; - incorporate explicit measurement and performance evaluation systems; - introduces the responsibility policy makers associated with rewards and penalties. <p>Program budgeting, budgeting and product performance based budgeting - all are functional, provided the implementation of the first two steps of PPBS budgeting.</p>

4. An Experience of Introduction of Program Budgeting in Hungary

As local government responsibilities in Hungary are defined and categorized by sectors (as are institutions and departments of the mayor's office), the easiest way to introduce program budgeting is to take a sectorial approach. Hungarian local governments that have initiated program budgeting have focused their efforts first on a single sector and then expanded their efforts to other, more complex sectors.

Some of these local governments started program budgeting in the communal services sector.

This sector is not subject to central government mandates on functions and expenditures (thus giving local governments more freedom), and sub-programs can be easily specified. The social services sector, on the other hand, is very complex, and some local governments have taken the approach of specifying sub-programs based on the tasks and activities mandated by the central government. This may be a useful approach; however, a detailed sector analysis can contribute to a clearer definition and management of sub-programs. A detailed sector analysis examines the legal framework; analyzes strengths, weaknesses, opportunities, and threats (SWOT); traces revenues and expenditures; and details the economics and clients of the service. In some cases, a sector analysis may identify sub-programs that combine several tasks. In practically all cases the sector analysis will permit the development of sector goals and objectives, fiscal indicators, and measurable performance outcomes.

Thirty-five local governments in Hungary have now adopted a program budget in varying degrees. Of these, practically all have undertaken a sector analysis in the sector chosen to initiate program budgeting, and all now have budgets that are more transparent and results oriented.

A case study of one of the Hungarian local governments that pioneered program budgeting, Szentes, documents the profound changes that program budgeting has effected in modernizing municipal budgeting practices in Hungary. This study identifies the steps that Szentes took to implement these changes and how the municipality addressed the challenges it faced throughout the process.(United Nations, 1965)

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