

University of Bucharest

The word "Manager" is written in a cursive, handwritten style. A thick, black, horizontal line, resembling a pen stroke, is drawn over the top of the letters "M", "a", and "n".

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offer ~*

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## *Leadership in companies without managers*

*The evolution of cutting-edge technology has imposed another type of organization behaviour in relation to market stringencies. The dynamics of the company leads to the emergence of another type of management that requires the replacement of the manager with a group of decision-makers whose roles change, being influenced by the moment of the company. We can talk about the complementarity of the decision-making groups's abilities that requires, on the one hand, a great mobility of each member of the group, and, on the other hand, a great ability to understand the moment when the responsibilities change between the members of the group. Thus, trust becomes a defining element of the team without a manager because it means both assuming and respecting at the same time the skills of the others. The network becomes an essential element in the decision-making process, but also in the communication thereof at the organizational level. The design of an organization changes dramatically and innovation and creativity become the decisive competencies of the decision-making processes.*

*Within the evolution of such organizations any employee can become a decision maker because reality requires this type of behaviour by which talented and willing employees can become catalysts of the economic reaction.*

*Leadership in companies without managers represents a challenge because the traditional concept by which it is defined transforms itself and the management becomes an activity of the group (not of an individual) in relation to the real conditions in which the company carries out activity.*

*There are a few companies that demonstrate through their work the viability of this concept (companies without managers), and we mention here a few: Zappos, Valve, 37Signals, Morning Star.*

*Prof. Ph.D. Paul Marinescu*



# Energy Interconnections Demands Leadership From European Union

~ Ph. D. Student **Cristina Necula** (Advanced Studies, Romanian Academy, Calea Victoriei, Bucharest, Romania)

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**Abstract:** Europe is facing a growing demand for energy, with volatile prices and with serious disruptions in the energy supply. In 2014, the EU's energy dependency was 53.4%, which meant that the EU bloc had to import more than half of the energy it consumed. To address these issues, a clear European energy strategy is needed, that is why the European Union has adopted a Democratic or participatory way of leadership.

Leadership is a complex and dynamic process that has been defined in many different ways. Leadership has been described as autocratic, democratic, situational, transformational, and free rein. Democratic or participatory leadership style involves consultation with group members on actions and decisions, and encourages and rewards involvement in the process. These leaders make decisions and set goals with the approval and full participation of the members.

That is why today Europe has common rules and Member States put their efforts together to access sufficient energy at affordable prices, keeping pollution to a minimum.

**Keywords:** European Union policy, energy dependence, leadership, energy strategy, interconnection, energy security, energy market, affordable electricity prices.

**JEL Classification:** F15, F21, F42, F5, F6, L11, Q4

## 1.Introduction

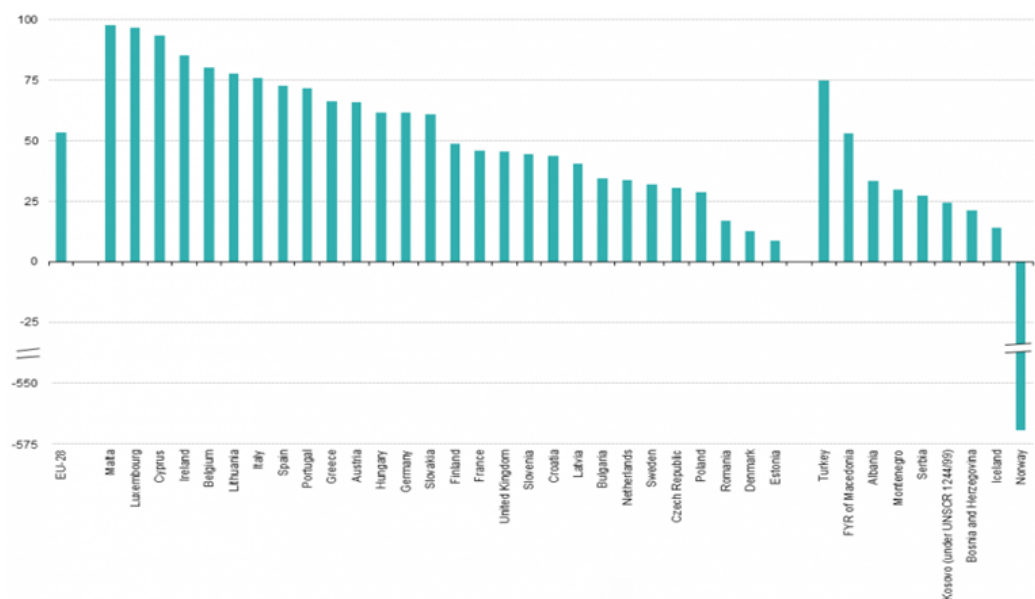
Light, heat, transport, industrial production: energy is primordial for everyday essential services, indispensable for both citizens and businesses. However, Europe's fossil fuel reserves (oil, natural gas, coal) are not inexhaustible. That is why we need to manage them carefully and, at the same time, try to find alternative resources. Europe is consuming and importing more and more energy. Member States have understood the need for coherent action in this area of particular strategic importance. That is why today, Europe has common rules and Member States put their efforts together to access sufficient energy at affordable prices, keeping pollution to a minimum.

The dependence of the European Union (EU) on energy imports, especially oil and, more recently, gas, is the basis for energy policy concerns related to the security of energy supply. This article refers to primary

energy production in the EU and, given the discrepancy between production and consumption, to the increasing dependence of the EU on energy imports from third countries. Indeed, in 2014, more than half (53.5%) of EU-28 gross domestic energy consumption came from imports.

The decline in primary production of coal, lignite, crude oil, natural gas and, more recently, nuclear energy has led to a situation where the EU has become increasingly dependent on primary energy imports to meet demand, even though this situation has stabilized after the financial and economic crisis. Primary energy imports in the EU-28 exceeded exports by about 881 million tons of oil in 2014.

You can see in the below figure the energy dependency rate in 2014 (% of net imports in gross inland consumption, based on tonnes of oil equivalent):



Source: EUROSTAT



The security of EU primary energy supply can be threatened if a large share of imports comes from a relatively small number of partners. Over two-thirds (69.1%) of EU-28 natural gas imports from 2014, came from Russia or Norway - there was, therefore, a stronger concentration of imports than in 2010, given that the same two countries have represented in a proportion of 59.6% the source of natural gas imports. A similar analysis shows that 43.5% of the EU-28 crude oil imports came from Russia and Norway in 2014 (a significant part from Nigeria, Saudi Arabia and Kazakhstan), while 70.7% of the imports of solid fuels of EU-28 came from Russia, Colombia and the United States. There were some clues regarding the emergence of new partner countries between 2004 and 2014. This was particularly the case for crude oil imports from Nigeria, Kazakhstan, Azerbaijan and Iraq or for natural gas imports from Qatar and Libya.

## 2. Energy security

Over half of EU-28 energy comes from non-EU countries, and this share has generally followed an upward trajectory over the past ten years (although some evidence indicates that dependency rates have stabilized in recent years). Much of the energy imported by the EU comes from Russia, whose disputes with transit countries have threatened to disturb supply in recent years. Concerns regarding the supply security from Russia have been emphasized by the conflict in Ukraine.

Following the Russian-Ukrainian Gas Crisis in January 2009, the legislative framework on the security of supply has been revised, and in September 2009 the Council of

the European Union adopted the Directive 2009/119 / EC requiring that Member States have minimum reserves of crude oil and / or petroleum products. These measures on the oil and gas markets were designed to ensure effective action by all parties to prevent and mitigate the consequences of possible supply disruptions, while creating mechanisms to allow Member States to collaborate effectively in any situation where major disruptions to oil or gas supply would occur; a co-ordination mechanism has been set up to allow for an immediate reaction of Member States in an emergency case.

In November 2010, the initiative "Energy 2020 - A strategy for competitive, sustainable and secure energy" was adopted by the European Commission. This strategy defines the energy priorities for a period of 10 years and proposes measures that can be taken to address a range of challenges, including delivering a competitive and secure supply market, strengthening the leadership position in technology and an effective negotiation with the international partners. One of the priorities is to continue with the good relations with the EU's external energy suppliers and energy transit countries. This work will be continued through an Energy Strategy for 2030 that provides a climate and energy policy framework for 2030, and a 2050 energy roadmap setting a long-term EU greenhouse gas emission reduction target by 80-95% by 2050.

Through the Energy Community portal, the EU is also trying to integrate neighboring countries into the internal energy market. The wide variety of sources of energy and the diversity of suppliers, transport routes and transport mechanisms can each play an important role in ensuring the supply of energy.

Building reliable partnerships with suppliers, transit and consumer countries is seen as a way to reduce the risks associated with EU energy dependency, and in September 2011, the European Commission adopted the Communication entitled "EU energy policy: engaging in relations with partners outside our borders".

There are a number of ongoing initiatives aimed at building gas pipes between Europe and its eastern and southern neighbors. These include Nord Stream (between Russia and the EU via the Baltic Sea), which became operational in November 2011, and the Trans-Adriatic gas pipeline (between Turkey and Italy, Greece and Albania to bring gas from the Caspian region to the EU).

As a result of the ongoing concerns about the EU's dependence on energy imports, in May 2014 the European Commission presented the Energy Security Strategy aimed at ensuring a stable and abundant supply of energy. As well as short-term measures addressing the impact of a stoppage of Russian gas imports or an interruption of imports via Ukraine, the strategy addressed the challenges of long-term security of supply and suggested taking action in five areas, including: energy production in the EU and diversification of supplying countries and routes, as well as reaching a consensus on external energy policy.

### 3. The internal energy market

In order to harmonize and relax the internal energy market in the EU, three successive legislative packages were adopted between 1996 and 2009; these packages deal with market access, transparency and regulation, consumer protection, interconnection

support and appropriate supply levels. As a result of these measures, new gas and electricity suppliers have access to the Member States' markets, and industrial and domestic consumers now have the freedom to choose their supplier. Other EU policies related to the internal energy market address the security of electricity, gas and oil supply, as well as the development of trans-European networks for the transport of electricity and gas.

In the energy sector, the completion of the EU internal market implies: the elimination of many obstacles and trade barriers, the approximation of fiscal and pricing policies, pricing rules and standards, and the adoption of environmental and safety regulations. The objective is to ensure a functioning market characterized by fair market access and a high level of consumer protection, as well as appropriate levels of interconnection and production capacity. The European Council has set as deadline 2014 for the completion of the internal energy market. Although this deadline has not been fully respected, progress has been made in diversifying energy suppliers and cross-border energy trade.

The European Union has made intense efforts to build the most integrated, competitive and sustainable common energy market in the world. The integration of energy markets in the EU gives concrete results: wholesale electricity prices have fallen by one third; consumers have more options, as energy suppliers compete to offer lower prices and better services; and the legal framework has improved competition within the sector.

Still, there are many more things to do. An interconnected European electricity grid is vital for Europe's energy security in order to increase competition in the internal market, leading to more competitive prices

and achieving the reduction of carbon emissions and climate policy objectives, that the European Union pledged to reach. An interconnected network will contribute to achieving the fundamental objective of the Energy Union, namely to ensure safe and sustainable energy at affordable prices as well as growth and jobs across the EU. Interconnection links are missing from several countries. Building these interconnections will require urgent mobilization of all efforts at all levels, in order to achieve the common goal of a fully functional and connected internal energy market.

The interconnection of isolated national electricity systems and the creation of a genuine European electricity system will generate important benefits for the European Union and its Member States.

Electric interconnections will enhance security of Europe's supply. They will improve the reliability of the power system, thus enhancing service quality, reducing power outages and productivity losses in the commercial and industrial sectors. Establishing ambitious levels of electricity interconnection will help reduce Europe's dependence, thanks to the optimization of the system, which will lead to a reduction in fuel imports, generating more opportunities for Europe in terms of investment, growth and job creation. In addition, interconnections facilitate instantaneous assistance amongst transport systems operators (TSOs), providing a greater degree of cooperation and solidarity between them.

An interconnected network allows for more affordable prices in the internal market by enhancing competition and efficiency, in addition to better and more cost-effective use of available resources. Interconnections imply better integration of the European market, allow for a larger market size and increased levels of competition, as well as

greater market efficiency.

A more integrated interconnection market also reduces the need for investment in high-capacity storage and production capacities, since the power plants of each country are not needed at the same time. This would result in substantial economic and political benefits for the Member States as a result of reducing capital investment and reducing the environmental impact of plants that would no longer have to be built. Lower production costs and / or low investment in production as well as avoidance of fuel costs by interconnecting electricity grids, translate into more competitive electricity prices for businesses and households.

A well interconnected network is essential for the sustainable development and reduction of carbon emissions, as it allows the grid to receive more and more energy from different renewable sources in a safer and more cost-effective manner. Increasing the share of energy from renewable sources in the production mix contributes to meeting the EU's climate change objectives by reducing CO<sub>2</sub> emissions and, in addition, by increasing security of the energy supply. A greater degree of interconnection is also essential to achieving the EU's ambitious goal of being a world leader in renewable energy, which is not only a matter of responsible climate change policy but also an imperative of industrial policy.

Being aware of the benefits of energy interconnections, Member States have increased their interconnection capacities over the past decades. However, 12 Member States, particularly in peripheral regions of the EU, remain below the 10% threshold of electricity interconnection and are therefore isolated from the internal electricity market.

The interconnection levels for electricity in 2014:

Member State	
<b>Member States above 10% interconnection</b>	
AT	29%
BE	17%
BG	11%
CZ	17%
DE	10%
DK	44%
FI	30%
FR	10%
GR	11%
HR	69%
HU	29%
LU	245%
NL	17%
SI	65%
SE	26%
SK	61%
<b>Member States below 10% interconnection</b>	
IE	9%
IT	7%
RO	7%
PT	7%
EE*	4%
LT*	4%
LV*	4%
UK	6%
ES	3%
PL	2%
CY	0%
MT	0%

Source: ENTSO-E, *Scenario Outlook and Adequacy Forecast 2014*

The TEN-E 5 Regulation, adopted in 2013, together with the 6 European Interconnection Mechanism (MIE), creates a stable European instrument designed to identify and ensure the timely implementation of the projects that Europe needs, at the level of 12 corridors and priority areas. These tools, together with the introduction of projects of common interest (PIC), the improvement of the regulatory treatment and the acceleration of the authorization process are an important step forward.

As pointed out by the European Council, the interconnection objective should be achieved mainly through the implementation of projects of common interest. The first list of PICs of the European Union was adopted in 2013 and consists of 248 projects, of which 137 are in the electricity sector, including 52 electrical interconnections and a project with forward-looking investments for

future interconnections, 37 of which involve Member States which currently have a level of interconnection of less than 10%.

#### 4. Conclusions

The European Union must achieve an electrical interconnection of 10% up to 2020 as a step towards creating a resilient energy union with a prospective policy on the climate. It is clear that Europe needs to step up its efforts to respond the energy and climate policy challenges.

In conclusion, several interconnections will help to achieve more affordable electricity prices in the long run, due to increased market efficiency, increased safety, reliability and quality of electricity supply, aspects that are essential for economic and social activities, ensuring at the same time a high level of environmental protection.

These developments will also contribute to reducing our energy dependency, by reducing the consumption of imported fuels and facilitating new investments in Europe, due to more competitive electricity prices and improved levels of competition for European industries.

Several electricity interconnections will also lead to: lower environmental impact due to the fact that some power plants will no longer be built and that CO<sub>2</sub> emissions will be reduced; and to increasing the capacity

to integrate energy from renewable sources; capitalizing on the potential higher growth for the European renewable energy sector and ensuring the world's leading position in the renewable energy industry in Europe; and thus a greater job-creation capacity of this sector at European level, resulting in a net job creation in Europe. For these reasons, the interconnection of electricity markets must be a political priority for the European Union at all levels in the coming years.

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# Smart specialization in Silesian region in Poland

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**Abstract:** The paper presents the concept of smart specialization on the example of the Silesian province. Starting from the origins of the use of the concept of smart specialization in the European Union, shows the definition of the concept, the use of the concept in the development of regions and presented that specializations are considered smart for the Silesian province. In recent years, based on previous experience of the European Union to stimulate innovation at national and regional level there has been a paradigm shift in thinking about innovation in the creation of the concept of smart specialization. Smart specializations, taking into account the specificities and traditions of the regions have become a means to improve innovation and the competitive position of the European Union. In Poland, the regions introduce the concept of smart specialization in their innovation strategy. In the case of the Silesian Province for the most intelligent specializations were: energy, medicine and information and communication technologies. In these areas in the coming years should be focused stimulant level of innovation in the region, which gives a chance for faster development of the entire region.

**Key words:** smart specialization, innovation, production, technology, knowledge-based economy

**JEL Classification:** M14, M42, M48

## 1.Introduction

Modern strategies of the European Union are strongly focused on innovation. The Europe 2020 Strategy, dedicated to smart and sustainable development is defined as follows, the new priorities of the European Union (Europa 2020; Bęczkowska 2014; Nazarko 2014):

- smart growth: developing an economy based on knowledge and innovation,
- divorce sustainability: promoting resource efficient, greener and more competitive,
- inclusive growth: promoting a more resource efficient, greener and more competitive economy.

With these priorities comes the concept of establishing smart specialization, which in addition is also the result of criticism of the current innovation policy of the European Union.

To propose the concept of smart specialization regions prompted the European Commission both expert opinions based on theories territorially oriented, as well as existing experience gained over many years of cooperation with the regions and evaluate the effectiveness of earlier national and regional innovation strategy (Nowak 2014; Słodowa-Helpa 2013). The basis for development based on smart specialization is the so-called place-based approach, meaning that for development it is important to take into account the geographical context from the point of view of institutional features, cultural and social. It focuses on the use, in their policies on local knowledge about the specifics of the place and the role of institutions of this kind of approach has now become the basis for regional development policy and the EU cohesion policy (Łuczak & Wolniak 2015; Horodecka & Wolniak 2015;

Szostak 2015). The aim of this publication is to present the general concept of smart specialization in particular taking into account the specifics of the Silesian province and discussion of specialization, which in this region has been included in this group.

## 2.Smart specialization - definition of the issues

European Commission guidelines state that in each Member State and in every region of the European Union concerning the areas of innovation and knowledge transfer must be included in the strategy document. One of the basic conditions for support within the European ERDF programs is to build research and innovation strategies for smart specialization.

Assumptions of the concept of smart specialization, have been formulated in 2008 by the Expert Group "Knowledge for Growth", established in 2005 by the EU Commissioner for Research. They refer to the concept: the basic product, flexible production, district industrial A. Marshall, diamond competitive advantages, the concept of the five forces and cluster M. Porter, growth poles F. Perroux, economic base H. Hoyt, etc. (Wolniak & Habek 2015; Wolniak 2015; Słodowa-Helpa 2013).

According to the documents of the European Union for intelligent specializations unique characteristics and assets of the country or region that highlight their competitive advantage and allow you to focus on regional partners and resources around a vision for the future aimed at achieving (Strategie 2014-2020).

Another way of smart specialization defined as actions based on the identification



and selection of areas with the greatest potential, affecting ensure the competitive advantage of the region on an international scale (Europa 2020). The concept of smart specialization follows a new paradigm for regional development, which has been characterized in Table 1.

Smart specialization, called the Anglo-Saxon literature smart specialisation is a concept, as well as a tool for innovation policy, which is used to identify and build the present and future position of the region or country in terms of the knowledge economy (David et al 2007; Kardas 2011; Hąbek & Wolniak 2015; Wolniak 2014; Wolniak & Skotnicka-Zasadzień 2014). The most important assumptions of the concept of smart specialization may include the following (Brzóska 2014):

- The implementation of smart specialization requires the creation of a sufficiently large area of research and innovation that will result in competition between many competitors. This will be allowed use of the

effects: the scale, the range and distribution.

- Competition European countries and regions in the same fields of study or areas of the economy will not provide the expected results due to the lack of economies of scale and achieve critical mass.

- The essence of the concept of smart specialization determine the so-called. technology general purpose (General Purpose Technologies, GTPS). These technologies have the advantage that they are normally used in many areas of human activity.

- The implementation of smart specialization should focus on "entrepreneurial" learning, which include the field of science and technology, in which the region or state can be a leader in the European and global scale.

The main actors in this process should be an entrepreneur, and public administration should provide adequate support. The inclusion of these concepts requires a paradigm shift in regional development, which was characterized in Table 1.

Table 1. Changing the paradigm of regional development in the direction of smart specialization

	The old paradigm	The new paradigm
Basic theory	The theory of industrial location, the main factors of development are characteristic of the region, eg. Production costs, availability of labor.	The theory of learning regions, the main factors are the ability, the region's ability to take ownership, use and creation of knowledge.
Objective	Justice through sustainable regional development	Increase competitiveness and value, eg. Entrepreneurship, innovation
Base policy	Temporary balance in less developed regions	Strengthening capacities in all areas affecting the growth of competitiveness through strategic regional programming, eg. Intelligent specializations



Actions	The sectoral approach with a limited number of sectors	Design approach based on an integrated and comprehensive approach taking into account the cooperation and relations with the environment (integrated development projects)
Space	Focus on backward, lagging administrative regions	All regions, with particular emphasis on functional areas
Approach	Uniform	Specific adaptation to space - place-based
Concentration	External investments and transfers	Endogenous growth factors and knowledge
Instruments	The impact of stimulus through subsidies and state aid focused on technical infrastructure and enterprises (often individual companies)	Development programs based on various investments in the sphere of hard and soft, eg. Entrepreneurship, labor market, infrastructure
Actors / organizations	Centralized management of shifting powers from the top down	Policy based on cooperation at various levels of management with different actors
Result	Ex-post evaluation, measurement results	Ex-ante, ex-post evaluation of the difficulty in measuring the effects

Source: (Szostak 2008; Vanthillo & Verhetsel 2012).

The most difficult task in the requirement of smart specialization is to determine the identity of the socio-economic region and identify those areas that seem most promising. You should then determine the resources of the region that are specific and unique to him, because they determine its competitive advantage. Resources of this kind, with a rare occurrence are difficult to imitate, copy and transfer to competitors, and their creation in a different space, does not guarantee positive results, even in the case of involvement in the process of large resources (Strategie 2014-2020).

In the case of the countries and regions to identify specialization should be done on a bottom-up approach involving key partners in the field of innovation and with the

participation of businesses, universities and centers for scientific research activities. Specializations are intelligent tool for policy implementation smart, sustainable and inclusive growth, which is to allow member countries of the European Union on the creation of a competitive and innovative economy. (Malik & Bedrunka 2013; Wolniak 2014; Wolniak 2013) In addition, specialization shall take into account the specificities of sectoral linkages between sectors, as well as the innovation infrastructure. Therefore the utilization-based approach promotes the development of smart specialties entire area (Barca 2009).

According to the guide PIS3 on the implementation of the concept of smart specialization, the concept is smart because (Guide 2013):

- builds bridges between the sphere of research and innovation on the one hand, and economic development on the other, using a novel quantitative and qualitative methods, such as the process of entrepreneurial discovery to create strategies and setting priorities for policy makers, in close cooperation with local stakeholders,

- is associated with the environment, which in determining the objectives of forcing the regions to an ambitious, but realistic approach.

The emergence of smart specialization and shot them in the forms of a document with the rank of strategic allow for more efficient use of structural funds. In addition, it will give the opportunity to increase synergies between different policies at EU level, as well as between the investments being made by the various means (public and private).

Smart specialization should facilitate the transition to a resource-efficient economies and low-carbon economy. Action should focus on sectors or groups of sectors with concentration and having a competitive edge in national and transnational as the endogenous development potential. These sectors should be well rooted in the regional economy, as well as demonstrate a mutual affinity technology, as well as the cooperative connections within and between sectors (Łuczak & Wolniak 2013; Szostak 2015). Objectives, which should be determined by the smart specialization issues such as (Rudnicka 2014):

- preventing fragmentation and duplication of research in the European Research Area (ERA),
- critical mass in key areas for Europe's competitiveness and sectors,
- spread of general purpose technologies, especially through the use of their

products and services,

- strengthening local capacities and capabilities to carry out R & D + I (stairways to excellence),
- strengthening the involvement of different stakeholders in the process of strategy (entrepreneurial discovery process)
- programming and implementation of policies based on evidence (evidence-based policy).

The main objective of the strategy for smart specialization is to target policy support investments in key national and regional challenges and needs in this way, to ensure the development of a knowledge-based. separation of smart specialization in specific areas will allow the use of strengths and competitive advantages of each country or region. They will constitute the capital endogenous, which will result in increase in the level of innovation and the growth of investment for the private sector. In addition, strategies for innovative specializations should be based on facts, and include appropriate mechanisms to monitor and control (Strategie 2014-2020).

In 2011, the European Commission has created the Smart Specialisation Platform. the aim of the platform is to help national authorities, as well as the regional authorities responsible for regional development in developing research strategies and innovative strategies based on smart specialization. Platform members are 15 states and 151 regions, of which 9 116 countries and regions have identified areas of smart specialization (Szostak 2015). Polska and Polish regions are also members of the Platform. At the national level identified five thematic sections, within which it has been designated 16 of smart specialization (Krajowa 20130).

### 3. Smart specialization in the development of the regions in Poland - Silesian region

In order to use smart specialization for regional development must take into account that it is based on mutual relationships between science, the public sphere, education and business. It is important in this case, use of the potential for the best possible matching directions of development of science and education in the region to its specific business.

To make a good choice of smart specialization is required in-depth analysis of the region, including in particular its potential, and the vision of its further development. In that case, the dynamics of the environment into account the context of national and global conditions, including the opportunity to use global resources necessary innovative business models (Brzóska 2014; Loska 2015; Prahaled & Krishnan 2008). Smart specialization is the concept entered in the innovation strategy, as well as the tool used to shape and build the present and future position of the region or country in the knowledge economy (Szostak 2005).

For the first time the concept of smart specialization appeared in the Regional Innovation Strategy of Silesia 2003-2013. According to contemporary needs of the region's economy the focus of the provisions, it was aimed at creating a possible full instrumentation support innovation, largely understood as the transfer of knowledge to SMEs. In particular, the document sets, such as specializations (Inteligentne; Regionalna 2012):

- biotechnology, including bioengineering and technology for health,

- technology for the power industry, including technology, energy production from renewable sources, combustion and thermal treatment of waste and energy saving,

- technology for environmental protection, including biogeochemical engineering and waste management,

- information technology and telecommunications,

- production and processing of materials, including advanced materials.

The next stage of work on intelligent specializations in the Silesian province was the development of the Regional Innovation Strategy and Technology Development Programme for 2010-2020. According to contemporary analysis determined the following areas of technological specialization of the region (Inteligentne):

- medical technology,

- technologies for the energy and mining,

- technologies for the environmental protection,

- information technology and telecommunications,

- production and processing of materials,

- transport and transport infrastructure,

- mechanical engineering, automotive, aerospace and mining.

According to the Regional Innovation Strategy of Silesia, developed for 2013-2020 issues related to smart specialization of the region are grouped around three areas: energy, medicine and information and communication technologies. In detail issues concerning the smart specialization in the region, which were concluded in these areas are summarized in Table 2.

Table 2. Smart specialization for the Silesian province

Area	Characteristic
Power engineering	<ul style="list-style-type: none"> <li>• being an important economic sector in the region and the national economy, due to the existing infrastructure equipment (production, transmission and energy consumption) and high population density and the location of industries in the region, Province of Silesia is an excellent testing facilities and the full scale implementation of innovative solutions,</li> <li>• generates a suction effect, not only in terms of technology for the power industry, but also for modern solutions in the field of environmental protection, information technology and automation and machinery industry,</li> <li>• becoming increasingly important in the use of renewable energy sources in the power industry and industrial, as well as in groups prosumenckich - business and residential,</li> <li>• in the broad sense it is the first and most important area of creating, testing and use of smart grid technology media distribution, from which experiences can be transferred to other so-called solutions. Smart markets;</li> </ul>
Medicine	<ul style="list-style-type: none"> <li>• is one of the traits Silesian province in the country for the sake of perfection in many areas of prevention, treatment and rehabilitation and recognition of medical engineering products,</li> <li>• importance as an element of the public service system in the context of the strategy outlined in the Silesian 20/20 vision, in which the region is described as providing access to public services of a high standard</li> <li>• inextricably linked with the creation, adaptation and absorption of advanced technology solutions to medical engineering, biotechnology, materials science, computer science and electronics,</li> <li>• assisted information technology and telecommunications research in silico, as well as remote diagnostics and prevention, and treatment of complex cases;</li> <li>• in the developing intelligent systems markets or quasi-markets related to the operation of the insured in the public system or the private system, including international;</li> </ul>
Information and Communication Technologies	<ul style="list-style-type: none"> <li>• in the horizontal importance for the development of technological, economic and social development of the region by increasing access to knowledge, and enabling the creation and distribution of goods and services,</li> <li>• allowing for participation in global networks of cooperation and the creation of trading systems and management of intelligent markets,</li> <li>• associated with the creation, adaptation and absorption of advanced technological solutions, materials science and electronics and the use of design as an important link constituting the success of the relationship of technology and products based on it from the user,</li> <li>• the use of which is one of the modern civilization competences of both individuals and communities, and innovation environments.</li> </ul>

Source: on basis (Regionalna 2012).

Table 3. Portfolio Technology of the Silesian province

		Interdependence groups of key technologies	
Impact on the development of the region	technologies exogenous	<b>Group D</b> Technologies island and exogenous <ul style="list-style-type: none"> <li>• Spatial information management technologies</li> <li>• Production of non-ferrous metals</li> <li>• Polymeric materials – castings</li> <li>• Medical education</li> </ul>	<b>Group C</b> Technology node and exogenous <ul style="list-style-type: none"> <li>• Biotechnology in environmental protection</li> <li>• Technologies removal of problematic environmental soil, water and sewage</li> <li>• Technologies dust</li> <li>• Fluid technology</li> <li>• Technology infrastructure</li> <li>• Technologies of intelligent transport management systems</li> <li>• Technologies of intelligent systems knowledge</li> <li>• Information Technology</li> <li>• Transport systems</li> </ul>
	technologies endogenous	<b>Group B</b> Technologies island and endogenous <ul style="list-style-type: none"> <li>• Artificial organs</li> <li>• Telemedicine</li> <li>• Advanced diagnostic tools and therapeutic</li> <li>• Technologies and equipment medical infrastructure</li> </ul>	<b>Group A</b> Technology node and endogenous <ul style="list-style-type: none"> <li>• Medical and Pharmaceutical Biotechnology in the biomaterials</li> <li>• Environmental technologies related to material engineering</li> <li>• Technologies of coal gasification</li> <li>• Other energy technologies</li> <li>• Polymeric materials - injection molding, injection, molding technologies and the vacuum</li> <li>• Material Engineering for Medicine</li> <li>• New technology and information technology in transport</li> </ul>

Source: (Regionalna 2012).

Specifying smart specializations for the Silesian province it was also determined the so-called portfolio technological Silesian province. You can present them in the form of a matrix (Table 2), which will be on one side technologies divided into exogenous and endogenous, and other technologies and technologies nodal island, and a portfolio of technological Silesia province (Table 3). On

the basis of the division can be considered that (Regionalna 2012):

- First strategic solutions are those solutions that bind to group A (technology nodes and endogenous) and B (island technologies and endogenous). These groups relate to technologies that can be developed using mainly their own resources and skills in order to become a product transfer-owany world markets.

- The next step could be to support the role of innovative development in the areas included in the group C (technology node and exogenous). these technologies, or core them technical solutions can be successfully purchased on world markets, but their mere implementation in the region can become a driver of technical competence and innovative potential of companies and research and development units in Silesia.

- Other activities (Group D - technologies insular and exogenous) pro-innovation should be regarded as associated, but not having a strategic dimension. Their use can be regarded as a kind of civilization heritage, which to some extent can not afford to neglect them.

#### 4. Summary

In recent years, based on previous experience of the European Union to stimulate innovation at national and regional level there has been a paradigm shift in thinking about innovation in the creation of the concept of smart specialization. Smart specializations, taking into account the specificities and traditions of the regions have become a means to improve innovation and the competitive position of the European Union.

In Poland, the regions introduce the concept of smart specialization in their innovation strategy. In the case of the Silesian Province for the most intelligent specializations were: energy, medicine and information and communication technologies. In these areas in the coming years should be focused stimulant level of innovation in the region, which gives a chance for faster development of the entire region.

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# Management Functions Particularities In The Competitive Intelligence Process

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**Abstract:** The manager is the key element in the process of information analysis inside a firm, especially because this process is used to make vast decisions, from strategic decisions to the most detailed tactical movements. It is a process that can reach all company's departments and make them more efficient. The process' success and its completion in order to create intelligence depends, first of all, on the manager's ability to carry out the five competitive intelligence process activities and to act accordingly at each stage. Also, the manager's response speed can make the difference between the success of an action to capitalize on the results of information analysis and its failure. Therefore, the paper will emphasize the importance of management functions and, especially, their particularities regarding the information analysis process and the competitive intelligence cycle. In the end, those particularities might be more important than the process itself, since the quality of the result depend drastically on the way tasks are distributed and managed. Last but not least, the manager should be able to make the distinction between regular activities and the ones defining the competitive intelligence process, in order to reach to desired objectives in an efficient manner.

**Keywords:** information analysis, intelligence, management functions, competitive intelligence process, competitiveness

**JEL Clasification:** D83, M11, M15

## 1. Introduction

If in 1903 the management was defined by Frederick Taylor as the “way of knowing exactly what people want to do and to ensure that they do it in the best and cheapest way” (Taylor, 1911)[15], the modern concept has taken on a much more complex pattern. Thus, we define management as a science, “an organized and coherent set of knowledge, concepts, principles, methods and techniques”, as an art, namely a reflection of the pragmatic side of the activity and the exercise of managerial skills, but also as a state of spirit, as a means of seeing and seeking progress (Russu, 1993)[14].

Therefore, management functions represent a series of major components, important activities which constitute the process of management. Henri Fayol defines for the first time five managements functions (forecast, organization, command, coordination and control), and the approaches from our country preserve this number, having slightly differences in form, such as: forecast, organization, coordination, training-motivation and control-evaluation (Moga and Radulescu, 2004)[9].

In terms of information analysis, it deals with a current problem of modern society, namely the need to obtain information that provides intelligence. Today the mere possession of information is not sufficient, but the way they are analyzed and used becomes absolute. In this relate, competitive intelligence is a systematic gathering program and

information analysis regarding competitor's activity and market's evolution so as to meet the goals of the company (Kahaner, 1997) [5]. Even though Porter defines this concept for the first time time in 1980 (Porter, 1980) [11], competitive intelligence is not assimilated into the organizational culture of entrepreneurs in Romania[10]. The usability of this type of analysis is growing along with the evolution of technologies. Due to high volume of information over the competitive markets, the need to reduce or even eliminate informational asymmetry has developed [6]. The use of information regarding competitors' wage policy, expected market developments, possible mergers, pricing policy is an essential element for the company's evolution on a highly aggressive and competitive market. In fact, the essence of the information analysis activity is to obtain legally and ethically-informed market-able information and competitors so that a firm can have competitive advantages. Besides the quantitative methods that are particularly important for the economic activity, one can notice the activity of information analysis, a qualitative method that adds value to the competitive market.

In the information analysis activity specific to competitive intelligence, a correct and complete approach of the managerial activity is essential. Creating intelligence follows a cycle that not only requires strict compliance with the manager's duties, but asks for careful follow-up on step-by-step activities specific to each function. This cycle contains

a series of five activities (Kahaner, 1997)[5]:

a. Defining information requests and planning the collection of data and information;

b. Collecting data and information;

c. Processing the data and information;

d. Analyzing data and information, the production of information that provides the capacity of actions and development of intelligence products;

e. Disseminating intelligence products and obtaining feedback from beneficiaries.

To emphasize the importance of management in activities that involves information analysis, especially those of intelligence creation, Henry Mintzenberg shows that the manager performs three informational roles: monitor, speaker and spokesperson (Pugh and Hickson, 1989)[12]. Hence, the manager monitors the whole firm activity, both in terms of internal and external information. This whole process represents the role of information speaker and the manager has the task of transmitting valuable and substantial information. Regarding the role of the spokesperson, it is often necessary for the manager to give information about the firm to outsiders, whether they are part of the general public or have a decision-making role.

## **2.Particularities of management functions in the information analysis process**

In addition to the general features, management functions present a number of peculiarities in the information analysis process. Knowing and respecting these peculiarities are thus essential to the end of the process, achieving satisfactory results.

### **2.1. Predictive function**

In general, it assumes the anticipatory identification of the problems that occur in the activity of the unit, inside and outside. Specifically, in the information analysis activity, one can identify the need for complete database, the company's previous performances and the need for specialized personnel able to analyze aggregate information. It also involves trying to reduce probability and uncertainty, while using as much information analysis methods as possible.

### **2.2. Organization function**

Uses recent information, defining methods to achieve goals. There is the need to identify the best organizational configuration for the information analysis cycle to function as efficient as possible. Information in an unpredictable good and the assignment of specific tasks to the rights persons becomes an essential activity to achieve the expected results.

### **2.3. Coordination function**

Uses very recent information and it is often quantified in action coordination tools (time and event graphs, critical road). The decisional speed is very fast, the manager being obliged to make on the spot decisions depending on the evolution of the events. Good knowledge of the field of action of each actor in the information analysis cycle and the existence of an adequate communication system are essential elements for the exercise of the coordination function.

#### 2.4. Drive function

It refers to socially relevant information and includes motivation factors such as pay, rewards, and moral incentives. By talking about a high added value activity but also a high level of employee engagement, the engagement function has the role of maintaining the level of motivation needed to achieve the expected performance.

#### 2.5. Control function

It assumes preventative control, which has the task of identifying weak signals that can create major problems in the future, but also combining the concept of back-up control with forward control for a more competent analysis of the results obtained.

### 3. Information analysis activities from the perspective of management functions

The five functions of management form themselves a cycle around each information analysis activity. Therefore, the specific characteristics of each activity will highlight the approaching particularities of management functions. The conclusions of the particularities' study will show how each function influences the precision and quality of the intelligence resulting from the entire cycle of activities. The approached perspective is that of the information analysis and competitive intelligence activity manager, perspective that reveals management functions for each stage of the cycle.

#### 3.1. Enunciation of information requirements and collection planning

This activity includes the early steps of the information analysis cycle. It can provide a clear understanding of the beneficiary company's needs, including time constraints, establishing a collection and analysis plan, informing the user about information needs and establishing the type of information sources. It also sets out the specific objectives that will be verified at the end of the cycle.

The predictive function is identified by the need to obtain information, the clear definition of the objectives, but also through forecast and plans for the information analysis activity. It is necessary for the manager to ensure that the objectives are feasible and their fulfillment can be done under ethical and legal conditions. At the same time, the predictive function in this first step is a very important one throughout the whole cycle, being the one that ensures that the starting point is a fair one and the activity following this step will satisfy the initial requirements.

The organization function shows the ways through which the manager identifies the need for information according to the initial elements and defines the informational system that will be the basis of the subsequent activity and will guide the collections teams in order to achieve proposed goals.

As regards to the coordination function, taking into account the information requirements, the manager needs to know the structure of his staff, both the collection and analysis staff, his capabilities and the level of knowledge of the field of action of each subordinate. Depending on these, the manager will know if the expected results can be achieved by the staff at his disposal and will also be able to carry out the most consistent

and accurate planning of the activity.

This first step of the cycle defines the first ways to attract staff to achieve their goals. The drive function thus includes the ways to stimulate employees even with the help of specific objectives. A company that analyzes information in the competitive environment is characterized by a high level of challenges, and these can motivate employees. The more challenging the objective is, the more motivated the employees will be to accomplish that objective given its complexity.

Finally, the control function highlights both weaknesses and strengths that the manager can encounter in the next steps. If at the time the information requirements were formulated and the collection was planned, all indicators show a high chance of success, the manager can proceed to the next step. Otherwise, it must modify either the objectives or the way of planning the collection in order to achieve a higher degree of success.

### 3.2. Collection of data and information

This phase of the cycle involves the actual collection of the raw data and information from which the intelligence will be produced. Most collection materials are public goods, which means they are available to anyone, and include annual and regular reports, whether private or governmental, books, shows, speeches, or databases. Creative staff can find in the public, often legally and ethically, all the information they need (Kahaner, 1997)[5].

In this case, the forecast consists on identifying places and environments where data and information might be available to achieve the objectives set. Information can be

accessed inside or outside the company. For the correct operation of this step, the collection methods specific to each environment from which information is to be collected (public data, regulated data, data retrievable on the Internet, etc.) are established.

By organizing the hierarchy of collecting teams, they are structured on several levels (eg collecting manager - team leader - online collection staff, field collection staff, telephone collectors) and assign tasks to each level.

Depending on the specific goals previously set, coordination requires the manager to determine the best environment in which an efficient collection can be made for the case, directing collection teams to that environment. Depending on the unexpected hardships or problems encountered along the way, it is up to the manager to interfere and to find the best way to solve them. In this case, we find both bilateral and multilateral coordination, depending on the nature and gravity of the problem.

Training may seem difficult when reaching this step, because it is also the most demanding. Employees come in direct contact with the external environment, which can often be hostile, especially as they are trying to obtain important and interesting information. However, besides the usual means (motivating salary according to the efforts made, bonuses offered to overcome the proposed targets, collecting performing equipment), the manager needs to know the necessities of the employees as well as their psycho-moral profile in order for the training to be effective. Employees must also make sure that the company's actions are legal and ethical, especially if such activity is new to Romania, and the public must be educated about what

the information analysis implies (there will be reservations about its legitimacy).

Combining past and preventive control is an important step in this phase. Depending on the outcome of this merge, the manager will decide whether the cycle may continue or whether it is necessary to return to the first stage. Firstly, the control will show whether the collection teams have been able to meet the objectives set for this stage and whether the information obtained can be a raw material for intelligence creation. Then, the preventive control will analyze, given the volume and type of information obtained, whether the cycle can continue and the objectives initially set can be met. If the manager decides that the information obtained is not sufficient, then it is necessary to return to the initial stage and change the information requirements.

### **3.3. Processing and storing information**

The third stage involves processing, conjuncting and evaluating meaningful information for the targets so that they can be transmitted and stored. In particular, it is desirable to process information so that it can be stored electronically, because this way it can be managed easier for the purpose of future analysis. It is also necessary to specify some features (the veracity of the source, the domain to which it relates, the stage of processing, the means of obtaining, the authenticity in relation to other information held) that will be useful in the next steps.

The predictive function includes the manager's ability to correctly establish information classifications, to establish the necessary characteristics in a continuous

relationship with the proposed objectives. If these attributes are correlated with the information requirements, subsequent analysis can be done efficiently.

In the case of the organizing function, the manager will indicate how to process and store the information. The manager must instruct and guide the staff who will perform these tasks for the correct processing. If processing and storage are assigned to a different team than the collection team, a close hierarchical link between the two teams is needed for the information to be complete and most of all true.

As far as the coordination function is concerned, the staff involved in processing and storing information must know in detail both the nature of the initial requirements and the way the information was obtained. That is why this step can be done in the best way only by the same team that was involved in the collecting process. This way, the team will have all the information necessary to perform the tasks of the processing and storage stages, transferring them to a different team would mean an additional cost.

The drive function has characteristics similar to those in the previous stage, especially if the team is not the same. Even if it is not the stage with the major implications, but rather an intermediate stage between the collection and analysis process, it is important not to ignore its importance. Employees must be aware that the competent processing and labeling of the information will increase both the chances of business success and the quality of the intelligence products.

The relationship between the employees and the manager should be, especially in this case, extremely tight. That is why the control function is exercised by ensuring



equity among the employees who perform the processing; studying the attributes resulting from this activity and ensuring that in the next stage the processed information can be used, this way leading to a higher quality of the resulting intelligence.

### **3.4. Analysis, production of new information and reporting**

Moving forward, analysis, producing intelligence and reporting is the most complex and difficult stage of the cycle. This refers to the application of the information analysis techniques to transform those collected in intelligence and then to correlating the results with the initial information requirements by producing reports based on these. The analysis requires special skills, because the analyst has to weigh the information, identify patterns and create different scenarios based on what he knows. Even if the analysis is based on quantitative information (hard information), analysts sometimes have to fill in "free spaces", make competent assumptions, and estimate possible outcomes (Kahaner, 1997) [5].

The forecast, in this case, refers to identifying the most appropriate methods of analysis, depending on the nature of the information gathered. Also, in order to eliminate the uncertainties in the results of this step, the manager will use several methods of analysis (consecutively or in parallel can use techniques belonging to quantitative methods using empirical data, quantitative methods using data generated by experts, unassisted decision method, analysis structured etc.).

The organization consists in the effective choice of those analytical methods defined in

the predictive function, taking into account not only the information requirements but also the nature of the information gathered. Ensuring the framework to support cooperation, both vertically and horizontally, is also needed at this stage, because the end result must be complete, complex and compact.

Coordination requires the manager to make sure that the analysts know the methods they use and that they have the capacity to analyze the collected information, regardless of the difficulty degree of they pose. The goals of this stage are to answer the questions, meet the information needs and meet the objectives of the initial stage. Therefore, the purpose of the analysis process should relate to these purposes in order for the information to be transformed into intelligence

The training is motivated by the analysts' motivation to carry out the work in question as effectively as possible. For this, the analysis stage provides employees with the highest degree of professional satisfaction due to the fact that they carry out an activity with extremely high added value, in which simple public information can turn into very valuable assets. The satisfaction experienced by analysts is significant, especially if the intelligence created by them is used to gain important competitive advantages. All these elements of moral motivation, of course, belong to those of a physical, monetary nature, which are in line with the large added value specific to the competitive intelligence activity.

Control is the step in which the manager can assess the success of the activity. Although the final control takes place at the last stage of the cycle, by analyzing the process results, the manager will see if this result coincides with the objectives and the

initial information requirements. Again, it is necessary to combine past and preventative control. Moreover, based on the resulting intelligence, the company can formulate new information requirements and even new future targets, thus turning to the stage of formulating information requirements and planning the collection that will underpin a new cycle. We see, therefore, that the information needs may change according to the results of the analysis, being extremely sensitive to changes in the competitive environment.

### 3.5. Intelligence product dissemination and feed-back from gainers

Finally, the fifth stage of the cycle is that of dissemination and obtaining feed-back. Since we are talking about a continuous cycle, we can say that this stage can be both the last and the first. Specifically, it can be the last step of a cycle that started with the information requirements formulations or it can be the first step in a new information analysis cycle whose objectives will be determined by disseminated projects. It is the time when analysts will suggest new possible action directions based on results. They need to be capable of materializing the recommendations and support them with solid arguments. It is advisable for the beneficiaries to produce a report from which to come out the usefulness of the information and the interest for the topics addressed. Most of the times, the resulted intelligence can be distributed throughout the company, in departments where it is considered to be needed.

The predictive function consists of final correlation of the intelligence resulting from the previous stage with the objectives originally set. Also, the manager can anticipate

new information requirements based on what has been discovered, but the implementation of these requirements in a new information analysis cycle can only be done after consultation with the beneficiary and only if this is of interest.

The organization's function is to establish the person or persons who will carry out the dissemination. In general, it is advisable that the same person who fulfilled the information requirements in the first stage of the cycle is also the one who will present the results to the beneficiary. Most times, even the manager, together with one or more analysts, will be the one who will make the dissemination.

Within the coordination function, the role of the manager is to ensure that analysts will explain and support their views on the results. The latter must be able to accomplish the task in question and be sufficiently trained in the field of activity concerned by that intelligence in order to conceive competent explanations.

The drive function shows a more pronounced moral motivation due to the fact that the product created by the analysts together with the collecting and processing teams finally shows their usefulness. The employees can see how the products help the beneficiary to create a competitive advantage and also if the products meet the needs of the beneficiary, a new cycle of information analysis will begin.

The control function includes the final evaluation of the activity and balancing the specific objectives established with the results obtained. If these are met in a proportion agreed by both parties as acceptable, the process is a success. Otherwise, it is up to the manager to identify the causes of the failure



and, by preventive control, to make an action plan for the problems discovered to be corrected in the future. It is noteworthy that the lack of correlation of the results with the initially established objectives may also have causes that are not related to the failure of the staff, but to the impossibility of obtaining the necessary information by legal and moral means.

### **Conclusions**

Competitive intelligence and information analysis includes a high degree of management involvement. This is the most important pillar, due to the fact that without its coordination the entire activity can fail. Intelligence is, actually, a sum of elements that are created in each stage of the cycle, the essential roles of the manager being to supervise the activity and to combine these elements, interfering whenever it is necessary to ensure a correct evolution of the process.

In Romania, these roles are even more important since the activity itself is new. If the person in charge of the competitive intelligence cycle does not combine managerial skills with respect to basic principles, particularities of management functions and in depth knowledge of information analysis, the results cannot be positive. This is all the more to the fact that the Romanian market has not been exploited yet, from the Romanian companies' point of view, on the side of the competitive environment analysis, the guidance for certain directions of action becoming strictly necessary.

The particularities of the management functions represent a guide that a manager who coordinated information analysis can follow. However, this activity is known to

have a low degree of predictability, and, therefore, unexpected situations occur with a high frequency. Spontaneity, adaptability and ability to make a competent decision under pressure and in a very short notice are other qualities a manager needs to have in this domain.

The final conclusion is that although they contain a number of specific particularities and despite the fact that competitive intelligence differs in many aspects from all other study methods of the competitive market, management functions are related to a set of general principles valid for any type of activity. Knowing all these principles is the element that differentiates a good manager from a simple leader.

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# Corporate entrepreneurship versus Operations control mechanism

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**Abstract:** Rules, methods and procedures are highly important and result in successful innovation. A good manager has to understand very well the tight relationship that exists between factors that facilitate the entrepreneurial innovation process and factors that control it – i.e. operations control mechanism. In many cases corporate entrepreneurs see the operations control as antithetical to their tasks. The main and most difficult goal is to achieve balance –*aurea mediocritas*– : balanced “Direction” approach; balanced “Space” approach; balanced “Boundaries” approach; balanced “Support” approach. Getting this balance right is the feature of effective corporate entrepreneurship, where all the abovementioned elements have to be seen as part of an integrated system.

**Key words:** corporate entrepreneurship, operations control mechanism, innovation;

## 1. Introduction

According to Ginsberg and Hay, corporate entrepreneurship is viewed as the process that generates and exploits new technologies, products, brands or businesses under the corporate umbrella of an established firm. Corporate entrepreneurship means the development of a new business concept within established companies. It is a process that goes on inside an existing firm that should lead to new services, products or processes as a result of its renewal strategies. This means speeding up processes inside a corporation which contribute to inventing and commercializing new products or services.

According to Wolcott and Lippitz (2007), the teams of the parent company use the resources within the company for managing the new projects. This could mean much more than development of new products, but it could mean as well important innovations to existing products or brands.

An entrepreneur means an individual who has the capability to identify new opportunities and turn them into a success business. In the end, the main goal is to create wealth. Within a corporation, one of the main duties of senior executive is to develop corporate systems and processes that support entrepreneurship within the organization. In our rapidly changing business environment it is fairly difficult to predict the changes that will take place in the future. Entrepreneurship means far more than just being innovative. It is about flexibility, dynamism and creativity. It is about being growth oriented and about taking risks.

We can name some of the most important benefits for corporate entrepreneurs within a company: most of the resources are already available (e.g. access to finances,

research and development, sales force, an established brand, distribution channels, customer base). Their job is secure. If their entrepreneurial initiative fails, they are not fired. If a mistake is made, the corporation can manage and cover the failure. Individuals within the corporation are always ready to help in finding new ideas.

## 2. Relationship between corporate entrepreneurship and operations control mechanism

Corporate entrepreneurship's exhibition and its success are not synonyms. Without an operations control mechanism, companies with corporate entrepreneurial initiative could generate an incoherent amount of "interesting but unrelated opportunities that may have profit potential, but that do not move [those] firms toward a desirable future".

For this reason it is of crucial importance for a company to have the ability to use judiciously the operations control mechanisms in order to select, guide, and possibly terminate entrepreneurial initiatives. Therefore, it must be a strong cooperation between entrepreneurship initiative and operations control mechanisms to promote innovation performance.

Operations control mechanisms have an overwhelming role on the business oriented innovation performances of companies which encourage entrepreneurship initiative. The operations control mechanisms have a positive moderating effect, establishing thus a beneficial balance.

It is often difficult to create and implement a corporate entrepreneurship strategy within a company in order to facilitate

innovation performance, because of the apparent antinomy between corporate entrepreneurship on the one side, and operations control, on the other side. In many cases corporate entrepreneurs see the operations control as antithetical to their goals.

The solution is a balance between the operations control mechanisms and corporate entrepreneurship initiative. Each respectable company should have its own structure, strategy and procedures. As a result, each employee should behave accordingly to the structure, strategy and procedures of that very company. The operations control systems belong to the procedures, and, as such, have a great impact on the entrepreneurial behaviour of the employees. Not the absence of operations control systems is needed in corporations that actively promote a corporate entrepreneurship strategy. The key is the alignment of the control mechanism with the antecedents to corporate entrepreneurship. Research on this topic has shown that control procedures can be highly beneficial to the development of new services and technologies or introduction of new innovative products.

The main idea that must be understood is the need of a balanced relationship between factors that facilitate entrepreneurial innovation and those which belong to innovation control systems.

It is an everlasting tension, even a conflict between resource efficiency and innovation. One must understand that innovation needs financial support. At the same time, without innovation, financial success is not possible.

Control procedures depend on the level of dynamism that governs that company and also the field of activity. Among companies that act in high-tech fields –so-called

fast-changing industries-, successful innovation control procedures were very flexible. Their goal was aimed on seeking an opportunity than on avoiding a risk. It is explainable. Not being constantly innovative in such fast-changing industries means collapse.

On the other hand, among companies performing in slower-changing industries, successful innovation procedures were based on risk reduction and lower entrepreneurship efforts.

### 3. Organizational antecedents

There have been identified specific organizational antecedents for entrepreneurial innovative behaviour. Among these we name: – top management support, organizational structure/boundaries, work discretion/autonomy, time availability and rewards/reinforcement – as being considered to be the most important organizational antecedents need for employees to behave entrepreneurially.

Without this antecedents which aim to encourage entrepreneurial behaviour, exploiting entrepreneurial opportunities will be impossible regardless of how eager to entrepreneurial innovation activities the employees could be.

(1) Top management support: top managers encourage entrepreneurial behaviour in a clear and open way; this include asking for and rewarding innovative ideas as well as providing the necessary resources that people need to engage in entrepreneurial actions.

(2) Work discretion: it means that the employee knows that the company is prepared to assume and tolerate failure; it provides decision-making latitude and freedom from excessive pressure. It is well known that

opportunities are mostly found by persons allowed to engage in experimentation.

(3) Rewards and reinforcement: reward systems that encourage assuming risks.

(4) Time availability: the employees must be provided with free time which will enable them to think at innovation opportunities.

(5) Organizational boundaries: Flexible boundaries could be very useful in promoting entrepreneurial activity. However, innovative success emerge most often when innovation is understood as a structured and purposeful discipline-based process. Otherwise, it could turn into a chaos. As a result, entrepreneurial innovation activity should be a coordinated process across the company.

There are many mechanisms through which operations control management is exercised by companies. Among these we name one of the most relevant: i.e. process control formality. Under high process control, a well and clear defined work environment with certain tasks eliminates uncertainty in the performance of duties. On the other hand, this also reduces the worker's degree of freedom to choose how to best achieve their goals. Process control formality can be low or can be high. This depends on the organizations culture and its managers' will to impose how tasks shall be performed. In high process control formality, the monitoring costs on how the tasks are being achieved is low.

High process control formality clarifies for corporate entrepreneurs how their innovative behaviours and initiatives have to take place in a pre-defined structure and process sense. In this way, process control formality is positive, resulting a disciplined approach to innovation, and innovation performance

is highest when innovation is regarded as a clear and "measurable" way.

#### 4. Considerations on "What goes wrong"

We have to admit ab initio that not all entrepreneurial initiative has positive results for the organization. At the same time we have to admit also that control is not at all the enemy of innovation.

Without a clear direction of where the company is going, entrepreneurship actions represent a set of aimless initiatives. Despite the fact that each particular action could seem perfectly rational, the end result is an incoherent mixture.

There is another important issue, which can arise if the personnel is given far too much space and time to pursue their entrepreneurial researches. Under such circumstances, they could lose focus on achieving their common tasks of their normal jobs, which will have negative consequences on the company.

Nevertheless, there are important benefits of giving the personnel much autonomy, namely space and time in which to act. Examples include highly innovative corporations, such as Ericsson SpA or Johnson & Johnson. However, when too much space is offered the situation can become critical – as it was the case of Enron corporation.

Focusing mainly on new opportunities and promoting an aggressive risk-reward mentality, the company was neglecting its existing traditional businesses which brought them the money. Too few boundaries within the company can lead the organization to a disaster. Lax controls were one of the main reasons which allowed individuals to lead

entire companies to disaster. (e.g. Recall Nick Leeson at Barings Bank)

With too little support, individual managers could be tempted to act like lone entrepreneurs, taking initiative on their own, without any consultation. This could lead to duplication: e.g. different business units of the same company competing for the same customers.

The presence of rules, methods and procedures are highly important and result in successful innovation. A good manager has to understand very well the tight relationship that exists between factors that facilitate the entrepreneurial innovation process and factors that control it. The main and most difficult goal is to achieve balance:

(a) A company needs a balanced direction approach. The corporation's strategy has to be drawn by its senior executives. Managers do not have input regarding the development of strategy. Senior executives are those ones who develop goals for businesses and, at the same time, work with managers on how the goals have to be achieved. All new services/ products or market ideas have to be examined by senior executives. As a result, the direction in a corporation has to be set from the top. At the same time, managers do have enough freedom to develop the strategy for the businesses they run, but in line with that direction. Senior executives' main duty is much more to identify the goals for the businesses, than how those goals have to be achieved.

(b) A company needs a balanced "Space" approach. Employees have to be allowed to spend around 10 percent of their time on things that are not formally part of their job description. This is very important for encouraging them to take initiative.

(c) A company needs balanced "Boundaries" approach. Boundaries should regard anything that can threaten the viability of the corporation. As a result, those who do not work within these boundaries face dismissal. Failure to work within any other boundaries -than those who threaten the corporation's viability- should not be punished as severe.

(d) A company needs a balanced "Support" approach. Training programmes, as well as career planning should be organised on a top-down basis. Nevertheless, the employees should have the freedom to take part or not. The main goal is to encourage, but not to impose business units to collaborate or/and share their knowledge. On the other hand, sometimes there is a strong need for managing knowledge and information only in a centralized manner.

## 5. Conclusion. Finding balance between constraint and chaos. Equilibrium and clarity

Getting the balance right is a feature of effective corporate entrepreneurship, where all the above mentioned elements have to be seen as part of an integrated system. If not, the failure could be fairly close: little direction but too much space leads to a lack of focused effort, but as long as boundaries are carefully managed, the risk can still be manageable. The well-known corporation 3M, for example, is recognised for providing personal space and defining its direction in very broad terms. However, it does so within a system that provides strong lateral support and very powerful normative values of integrity and collegiality. On the other hand, one can easily identify elements that led to



failure. Among these, we have to name: e.g. lack of strategic direction, employees who are given too much space or ineffective support systems.

Corporate entrepreneurship will flourish when balance is achieved. Entrepreneurial equilibrium is the key. First of all, companies have to perform balancing acts within the strategy area, without forgetting the operations and organization. This will lead to developing a clear strategy, creating an executable model, and conquering a good position on the market. Strategy development can be achieved by trial and error. As new businesses operate in ambiguous environments, failure can and should never be excluded. Combination of open-minded opportunism (we have to try it and see how customers react; then we will make the changes based on what the customers do want) and a very disciplined planning (explore the market, formulate a hypothesis about what people do need, design experiments to test our hypothesis, and repeat the process until we

will have the right product/service, technology and business model).

New and efficient ideas (e.g. collaborative brainstorming) are not achieved by the way of unguided searching. Corporation do need strong criteria to narrow the range of potential choices and to judge if a certain technology or a certain market presents or not a business opportunity. In this stage it is not important to answer immediately every question and to have everything under control. On the opposite, the question's quality is more important because good questions lead to success.

"Strategic clarity" is the key-concept. That means having a very good understanding of the new business's marketplace, customers to be pursued, existing and needed capabilities, innovation that could offer an advantage over the competitors, and the detailed steps that have to be taken next and possible adjustments that could become necessary depending on the changing business environment.

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# An Analysis Of The Workforce Training And Improvement System In Order To Efficiently Absorb Foreign Direct Investment

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**Abstract:** For any country, a productive workforce is an important factor of economic growth, and Foreign Direct Investment increase the influence of this factor by accelerating growth, due to capital flow that is directed by foreign investors towards the host economy. For developing countries to fulfill their target of exceeding their own economic condition, it is necessary to first find solutions to streamline the human resource management. Secondly, if the training of the workforce is made according to functional strategies directed towards attracting Foreign Direct Investment, the chances of economic development grow exponentially. The aim of this paper is to determine the importance of the workforce training and improvement system and to establish the general lines through which this system can be improved in order to attract the attention of investors that can bring in foreign capital.

**Keywords:** labor management, workforce, foreign direct investment, training, improvement, higher education;

**JEL Classification:** I25, M54, F21, F23.

## Introduction

In order to fulfill the aim of this paper I first thought necessary to approach some theoretical concepts regarding the training and improvement of the workforce with an eye to attracting foreign investors. Thus, I have analyzed the impact that the workforce training and improvement has on improving productivity and economic growth, and at the same time, I reviewed several training and improvement systems that are representative for their efficiency at a world scale. Also, I have analyzed the evolution of the investment motivation, highlighting the criteria that is behind investment decisions in regards to available methods of training a host countries workforce. I aimed to determine the reasons for which the current workforce training and improvement system in Romania should be modified so that it includes measures that will allow the attainment of abilities that are required by foreign investors.

### 1. The role of the workforce training and improvement for the labor market and the economy

In order to establish the framework of the detailed analysis of the Romanian workforce's training and improvement in order to transform it into an attractive market for foreign investors it is necessary to underline the theoretical and empiric fundamentals that tie the human capital to the performance of the labor force.

Thus, from the end of the 20th century, a transition from an economy based on production towards an economy based on knowledge and information has taken place. Moreover, as the transition from the agrarian

economy to the industrial one which required a new set of knowledge and abilities within the workforce, the same was true for the current transition which changed the nature of jobs and of the elements required to achieve success.

The economic models that insist upon the presence of educated workforce on the labor market start from the premise that education is a vital factor as it has a beneficial effect over the acquirement of knowledge and the formation of the skills necessary in order to fulfill the workplace responsibilities [1]. In his work from 1964, G. Becker shows that the people that are willing to invest time and financial resources in the human capital will not only obtain financial profits, but will also profit from behavioral advantages from their employees [2]. The time that is dedicated to education ensures the acquisition of a set of knowledge that, through the productive nature of education, increases the enterprise's individual human capital. Education can increase the productivity of individuals and thus, their wage demands in a competitive labor market. Training can be accomplished through formal studies on multiple levels or through training programs but also through diverse investments made at the workplace, learning by doing or other qualification activities. The surplus potential that is obtained is reflected in general or specific activities undertaken at the workplace, in growing the work experience and in cognitive and social skills that can be used to make work more efficient.

Economists have tried examining the macroeconomic benefits that a superiorly qualified workforce brings. Economic models rely on two possible hypotheses that connect workforce training and improvement

to economic growth. The first hypothesis is that training and improvement are a factor of production, as is physical capital, and the second hypothesis that a country's human capital can lead to a bigger growth margin, by improving its capacity to develop, invent and apply new technologies. In this context, the resulting technological progress leads to certain economic growth [3].

Other macroeconomic analyses show that not only the quantity of the education and training is important, but also their quality. In a study made in 2000, E. Hanusheck and D. Kimko concluded that scholastic results are reflected in economic growth rates, exceeding the impact the quantity has over it. Their analysis also shows that the training rate of the workforce has a tremendous impact in GDP growth in the long term [4].

The last decades can be characterized by the increase of economic integration and by accelerating technological processes. This progress has contributed to the increase of the demand for better-qualified workforce, especially in advanced economies [3], demand that has been determined by complex technology and by the ways it has changed the nature of the workplace, the knowledge, the skill sets, and the aptitudes required to complete tasks. Thus, in an economy that is centered around knowledge, as a consequence of the fast paced changes of the last few decades, the demand for more qualified personnel has increased. In some cases, new technologies can render human labor obsolete, thus changing the nomenclature of occupations as some professions and jobs become deprecated, while others gain significant importance [5]. In some situations, certain traditional occupations are still in use, but the knowledge and skill set required to

perform that activity have changed as new technologies are integrated. While technological progress creates an increased demand for qualified workforce, this does not mean that all of the jobs will require better qualifications. In accordance to the mix of different fields from an economy, the labor market is and will be covered by a segment of poorly qualified workers that would only need to be trained at the workplace. Such jobs can be identified in the service sector, but also in production, constructions, mining and other extraction industries. However, even for the workplaces that have low requirements when it comes to qualification, a minimal set of knowledge and skills are necessary when using new technologies.

In the context of scientific and technological progress, the growth in productivity and efficiency, regardless of the field, imposes the need for a trained and improved the workforce [6]. As such, we can talk about the idea of learning throughout a person's entire life span, and regardless of the fact that it can be obtained in a formal or an informal fashion; it is a requirement for many workers. [3].

## 2. Workforce training and improvement systems

Every country has its own vision on work. At the same time, there are more than one models of thinking when it comes to work and the way it is organized or the way a country trains its citizens in order to work efficiently.

The theory of human resource management defines the concept of professional development as the activity that the individual undertakes in order to obtain theoretical knowledge and practical skills in order to

fulfill their workplace duties in accordance with the requirements of the labor market [6]. In light of the theory of human resource management, countries must establish development strategies and specialized policies that stimulate and ensure favorable conditions for the growth of human capital and its efficient integration in the labor market.

For example, the United States of America is famous for having a free market economy, with a minimal intervention of the state in the economy. In this context, regarding the workforce, non-interventionism is easily noticeable from the fact that there are no implementations towards contract terminations, work relations being characterized by short term occupancy. Considering the fact that the influence of worker unions has been reduced significantly over the last few decades, collective contracts that are characteristic to market driven or less functional economies do not exist in the United States. Thus, this country's market, overall characterized by its flexibility, is associated with a training system that leads to the acquirement of general qualifications, the skill set being suitable for a large number of enterprises, and as the market shifts, the workforce can be hired or fired. As the labor market is not regulated and it has major fluctuations, the workforce has flexible qualifications, suitable even after changing jobs. As unions fail in coordinating and collaborating in order to build training programs that are specific to certain industrial branches, workers pursue the acquirement of general competences, well adapted to the requirements of the sectors of the economy, and employers organize their own training and improvement programs and establish clear procedures in regards to the training taking into account the specifics of a job [7].

The German training system is well known for the specialists that it prepares. The production systems that are characteristic to many German enterprises often require well trained personnel. This necessity has given birth to the German training system that is characterized by the increased focus on profound specialization and practice. Despite the fact new employees earn less in comparison with new employees from other countries, German youth are ensured integration in the labor market. Through this system, Germany is one of the countries with the smallest unemployment rates among young people. In comparison with the previously analyzed countries, that have a generalist training system, Germany possesses a highly qualified workforce due to its dual training system. The high qualifications offers the power to negotiate in the context in which the enterprise's productive activity depend on the specialization and the experience of the qualified workers. Enterprises have organized themselves in such a way that it allows the negotiation of wages between owners and unions, creating a balance between the demands of the employers and the employees. A disadvantage of this dual system is that it is significantly dependent on the state of the economy. In expansion periods enterprises are interested in cheap and flexible labor force, and in the stagnation periods the requirements for apprentices drops, and if this phenomenon persists, the number of people that can't find a place to practice their newly accumulated knowledge will grow, and when the labor force demand returns to normal levels the competition for a job will be fierce. Another disadvantage of the German training system is the fact that the responsibility for the training and

improvement of the workforce rests upon the state and enterprises no longer deem making major investments towards further developing their personnel necessary. This situation causes the diminution of the continuous training effort [7].

At the end of the 20th century the Japanese state has begun ensuring the primary scholastic education in state institutions, and presently the majority of teenagers are trained more than in the 9 year compulsory school period. Initially, the Japanese training system was promoting diligence and perseverance, the attachment towards society and the transfer of essential knowledge, with no interest towards developing personality and creativity. Thus, youngsters were prepared to fulfill the duties for the enterprises that were willing to train them. Specialized training was made within the company and the abilities learned are so specific that changing jobs is quite complicated. Recently, the Japanese school started giving more credit to creativity, as technological progress can't be achieved only through discipline and diligence alone. Also, the state has taken measures in order to adapt the educational system to the realities of an aging society, as schools and universities develop the creativity and the individuality of youngsters but also provide courses meant for older people [7].

### **3.The role of the training and improvement system in the evolution of the investment motivation**

Beyond the macroeconomic stimuli that FDI provide, they also influence a growth of productivity and generally, an improvement of the quality of the human resources of the host country. In this context, it's very

important to determine the main qualities and capabilities that a workforce must possess in order to complete its tasks in accordance with the standards of FDI companies.

The motivation depends on three important factors that indicate the choice of a certain market, and also the way through which the foreign capital enters a new market: factors that are specific to the economy in which the investment is made, a company's internal factors and strategic factors. The first important determinate factor for transnational companies (TNC) is that of the host economy. In addition to the fact that this factor determines the decision to invest or not, it also establishes the size of the investment, the conditions and the degree of openness of the company towards expanding in more locations within the host economy.

Among the factors that are specific to a host economy are the following:

- the host country's economic policies;
- the dedicated measures that are taken in order to attract FDI;
- the social-economic evolution of the host countries.

Trans-national companies are, according to specialists, the most developed source of corporate research and development activities, taking into consideration their advanced technologies and the potential to generate positive results in the fields in which they work in [8]. In this context, a qualified and trained labor market is a certain advantage when a TNC must choose an economy in which to invest.

Generally, investments in education and in the training and improvement of the human capital are essential in the creation of a favorable environment for attracting FDI. The presence of a minimal level of education

conditions how attractive a country is for FDI and maximizes the effects that the FDI have in the host country. [8].

The general qualities that an employer pays attention to regarding the workforce are divided in 4 categories and depend mostly on previous development and training:

- technical – they amount to the specific know-how of methods and techniques that are required in order to fulfill the responsibilities of different occupations;
- personality specific – they refer to the ability to communicate, to work in a team, discipline, etc;
- conceptual – such as the capacity to innovate, to be creative, critical thinking, adaptability, realism, etc;
- other qualities - among these are self-confidence, flexibility, organized spirit [6].

And in regards to the types of investment, the attitude and the expectations towards the human resource differ, according to the interests that the investors have in the host economy:

- resource seeking investors – interested in utilizing a country's advantages – in regards to human resources they're either looking for cheap workforce or specialized workforce;
- market seeking investors – they invest in fields such as consumer goods or industrial products – in regards to the labor force they're interested in specialized personnel for managerial positions and cheap, non qualified personnel for execution jobs;
- efficiency seeking investors – they make investments to consolidate the activity of a company, that are aimed towards an increase in efficiency, this type of investment is based upon long or indeterminate term

plans. In regards to the labor market, the investors seek workforce productivity as well as cost and quality efficiency [9];

- strategic asset seeking investors – long term plans – they look for a qualified and specialized labor force [10].

It is worth mentioning that even though the criteria used to make decisions from foreign investors are the same, the interest that they have towards the qualifications of the labor force is according to the type of investment that they plan and their general interests. Thus, a country that desires to attract FDI through competitive advantage, which is provided by the labor force, will be required to choose certain types of investments, and at the same time, they will need to invest in the training and development of the work force in accordance to investor criteria, or to find ways to balance the education system with the demands of the labor market.

#### **4.The current labor force training and improvement system in Romania**

According to the Global Competitiveness Report with regards to the education and professional training in Romania a major discrepancy is noticeable between their quantity and quality, with a deficit for the latter. If in regards to the quantity of the education, Romania scores a 5.6 out of 7, in regards to the quality of the education, the Global Competitiveness Index from 2016 shows that Romania is not as competitive, situating itself below the average of the 140 countries that were the object of this analysis, with a score of 2,8 out of 7, ranked on the 121st place [11].

In order to change this position and to comply with European regulations and to meet the conditions of the Europe 2020



Strategy, Romania has written and adopted in 2015, the National Reform Program, document that defines the nation-wide vision over the way the educational and formative system will develop within the next years.

In order to improve the efficiency of the educational and professional development of its citizens, the Romanian state has established a set of targets through this program. In regards to education, Romania has two major targets to be met by 2020, the decrease of the rate of early abandonment of school and the increase of the rate of people between 30 and 34 that have graduated a tertiary form of education. The target in regards to the reduction of school abandonment is 11,3% while the average between 2010-2014 is at 17,7%. In addition, the second target stands at 26,7%, while in 2014 it was recorded at 23,8% [12].

Besides the two priorities mentioned above, Romania also aims to implement a series of new measures regarding education, that refer to early education, gymnasium, high school, professional and technical education by increasing the rate of usage of digital instruments, with an emphasis on learning at the workplace by doing.

In regards to university education, the proposed measures are meant to solve issues that have a social nature, as they aim to facilitate access to this type of education to deprived individuals. In addition, it is desired that higher education is adapted to the requirements of the labor market by counseling universities and allowing them access to some informational platforms used for monitoring the labor market [12].

Now, in Romania, the acquirement of professional skills and developing them during the entire lifetime of an individual can be accomplished through formal, non-formal

and informal learning, according to the Romanian Education and professional development Strategy for 2014-2020.

Formal learning is made through two complementary systems: the initial professional development system through which the individual obtains the qualification in order to get a job and the continuous professional development system through which the individual develops the acquired qualifications taking in consideration the labor market's demands and his personal wishes.

The initial professional training is made through professional and technical education that is coordinated by the National Center for Developing Professional and Technical Education. As a result of the activity of this institution, starting from 2012 professional educational projects have been organized, with a duration of 2 years, after finishing the 9th grade, within each school year allocating 60%, respectively 75% of the time towards practical training. These trainings take place in the school's workshops and those of economic agents. Starting with 2014, 3-year professional education programs are organized after the end of the 8th grade, the focus being towards practical training again.

The decision regarding the planning of these programs is made at the county level in accordance with the specifics of the local labor market and taking into consideration the logistical means at the disposal of educational units from the county. According to the statistics provided by the National Center for Developing Professional and Technical Education, the network of educational units that were organizing the school programs for professional and technical education in 2010 only amounted to 1259 schools throughout Romania's counties [13].

Concluding, we can state that the pre-university education system does not prepare enough young people for the labor market, with the exception of the technical and professional training programs. Preparing youngsters for the labor market is flawed, the accumulation of knowledge and practical abilities being precarious, and the professional and technical training programs introduced since 2012 have not demonstrated their efficiency in regards to occupying jobs on the market [14].

The higher education system has developed in an alert fashion but without any functional connection between the educational programs and the demands of the labor market, the knowledge and skills obtained by the students not meeting the European quality criteria, as universities provide outdated theoretical notions with no real application in professional activities [14].

In regards to lifelong learning, the institution that maintains control of the supply of skills in Romania is the National Authority of Qualifications (Autoritatea Națională pentru Calificari), a public institution that is under the authority of the Ministry of Education. It is tasked with developing the national framework of identifying the skills on demand on the labor market and the development, recognition and the management of the National Qualifications Registry [15].

The National Authority for Occupying the Labor Force (Agenția Națională pentru Ocuparea Forței de Muncă -ANOFM) has, on a national scale, the purpose of organizing and implementing professional and technical training programs, and as a consequence of these attributions it trains annually over 30.000 in the 8 regional training centers it has under its supervision. The work legislation

states that employers that have more than 20 employees must elaborate and implement an annual training plan for developing their employees in collaboration with a trade union organization that they are affiliated to. The legislation also states the employer must support the costs of these training sessions and must pay the employees for the period in which these activities take place.

The introduction of a new educational system in Romania, after the regime change that took place in 1989, has been a long process that was finalized, from a legislative point of view, in 2000. The main obstacle in the way of reform has been the traditional mentalities that regarded the educational process as a unique act and rejected the idea of lifelong learning [16]. Thus, the fast socio-economic changes, lead to a need of reform, in regards to the essence and not the outside form of the formation and development process, as a hybrid system does not provide the qualities that are necessary for the Romanian labor force to provide Romania with a competitive advantage.

### **5.Strategic considerations regarding the improvement of the training and the labor force in order to attract foreign investments in Romania**

Following the information accumulated during this analysis, we can strongly argue that in order to attract foreign entrepreneurs it is necessary that Romania create a business environment that is characterized by openness towards competitiveness and innovation in fields that have potential competitive advantages. At the same time, from this research we can see that work flexibility is seen as an important factor for attracting

investments. As such, the labor market must be diversified, well trained, innovative and mobile. Another very important aspect that results from this analysis is the fact that Romanian public authorities must implement mechanisms that bind the public and private sector in such a way that it correlates the labor market's requirements with the education, training and improvement of its citizens.

In order to improve the training and development system in Romania, with a view towards efficiently absorbing foreign capital, the formulation and implementation of a strategy that includes a new vision over the training and development system is necessary. Considering the fact that the Romanian educational system is hybrid, trying to implement tools utilized in systems such as the American and German systems, we find that the most effective solution to improve the current training and improvement system is to transform it into a dual system, focused on quality and efficiency, in order to intensify foreign capital and thus, economic growth.

Education's productive nature, through the knowledge and skill set of each employee, increases the human capital reserve of an enterprise. Thus, in every country, a well-founded strategy must be present, that correlates the labor market's requirements with the qualification programs on offer, that focuses on the country's advantages, and stimulates specialization on regional levels in the fields that have competitive advantages.

To improve the training and improvement process in order to transform it into a productive factor and competitive advantage for the Romanian economy it is necessary to adapt the way the training and improvement system is organized and operates and to transform it into a highly efficient training instrument of the citizen for the local labor market.

In this context, I will make a SCRS (Strategy – Current State – Requirements – Solution) analysis in order to suggest a first step towards ensuring the role of a production factor for the training and improvement system through professional and technical learning.

*Table 1 A grid that presents a strategy of ensuring the factor of production of the labor market through the professional training and improvement*

<i>Strategy</i>	<i>Training and improvement</i>
<i>The current state</i>	<ul style="list-style-type: none"> <li>• <i>the pre-university education system does not prepare young people for the realities of the labor market, with the exception of the professional and technical learning programs</i></li> <li>• <i>poor accumulation of knowledge and skills</i></li> <li>• <i>the technical and professional educational programs are organized according to schools' logistical resources</i></li> <li>• <i>the technical and professional learning programs are not demonstrating their efficiency on the labor market</i></li> </ul>

<i>The proposed system's re-requirements</i>	<ul style="list-style-type: none"> <li>• <i>the creation of legislative, logistical and informational instruments in order to reorganize this system in a single representative institution</i></li> <li>• <i>this institution will study the requirements of each region in great detail and will offer programs in accordance with the necessities of the labor market</i></li> </ul>
<i>The solution</i>	<ul style="list-style-type: none"> <li>• <i>the separation of the technical and professional educational system from school units, subordinated to local public administration</i></li> </ul>

Source: the author's conception

Through the separation of the technical and professional learning system from the school units that are subordinated to the local public administration and the creation of an institution that is dedicated to this type of education improvements to the quality of the yearly organized programs can be made. In addition, the technical and professional education can be transformed into a continuous source of qualified labor force, up to date with the latest needs of foreign and local investors.

It is generally accepted that in the development of human capital, public education plays the most important part, foreign companies providing a significantly lower contribution. The positive effects of the training from FDI are meant to supplement and not replace the growth in skill level and qualifications for

the human capital. However, the presence of FDI can have a good effect on state authorities that can be given early indications as to the demands of skills. In this context, the major challenge for the representatives of the Romanian education system is that of satisfying the demand on time, being aware that education not only favors potential investors, but is also a factor of development, of general usefulness [17]. Therefore, it is necessary to fix some of the issue of the university system in Romania because it fails to cover the efficient qualification of young graduates. With this in mind, through the SCRS analysis I will formulate a first strategic step towards increasing the strictness regarding the quality of the higher education programs.

Table 2 – A grid highlighting the strategy of ensuring that university education is a development factor

<i>Strategy</i>	<i>University education – can ensure the improvement on Romania's human capital to develop itself, to innovate and to apply new technologies</i>
<i>The Curent State</i>	<ul style="list-style-type: none"> <li>• <i>there is no correlation between the labor market's tendencies and the knowledge that is accumulated during university studies</i></li> <li>• <i>the knowledge and skills that are acquired by students do not meet the quality criteria and standard that exist on a global or European scale</i></li> <li>• <i>universities do not measure and update to quality of their courses, the elements that are taught have no application</i></li> </ul>

<i>The requirements of the desired system</i>	<ul style="list-style-type: none"> <li>• <i>universities should reach for higher standards, that are compatible with the needs of the labor market</i></li> <li>• <i>the certification of the quality of the courses</i></li> <li>• <i>the elimination of university programs that are not in accordance with the changes of the labor market</i></li> </ul>
<i>The solution</i>	<ul style="list-style-type: none"> <li>• <i>the creation of legal regulations that would determine universities to follow the tendencies of the labor market, and to use the platforms that are made available by the Romanian authorities in order to have an updated insight over the requirements; early adaptations of the educational programs.</i></li> </ul>

Source: the author's conception

The creation of a legislative framework in order to increase the strictness with which universities fulfill the compatibility criteria of the educational programs with the market's requirements would be the first step through which, the private sector, the consumer of labor force and the educational system, the supplier of workforce would begin to work together in order to continuously train and improve the labor force.

## Conclusions

The information gathered throughout this paper signal the fact that a country's labor force is a very important resource for its economic growth, and the way it manages its training and improvement process gives each system its specific attributes, each foreign company being interested in training systems that are similar to those from which it comes or they are looking for a certain skill set of the labor force, in line with the company's activities.

The fact that the workforce's flexibility is seen as an important factor in attracting FDI must determine the training and improvement system to diversify the types of

programs it has on offer, so that it leads to a labor force that is well trained, innovative, mobile, in line with the requirements of the private sector, and the public sector as well.

In order to improve the training and improvement system of the labor force in Romania in order to attract FDI, I thought necessary to formulate and implement a new vision, either by streamlining the current system or by completely changing the system by implementing instruments used in systems such as those in the USA, Germany, Great Britain or Japan.

Due to the fact that the Romanian educational system in a hybrid system, the most feasible solution is that of streamlining the current system by fully turning it into a dual system (by increasing the strictness of the way technical and professional education is organized and by improving university education), focused on quality and efficiency. Only a change in vision can satisfy the expectations regarding the reformation and improvement of the educational system and the expectation regarding transforming the market into a competitive environment.

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## Informal economy in Romania- the main forms of manifestation

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**Abstract:** Nowadays, the informal economy can no longer be seen as a temporary, atypical and a marginal phenomenon, and besides, it has more than a fixed character in countries where incomes and assets are not distributed correctly. The informal economy will not experience a decline, if the economic development is not followed by an improvement at the level of employment and if income will remain at the same level. Informal economy cannot be measured accurately. Besides, without the certainty of success, trying to measure it would entail huge costs of information and creation of specific data bases. However, the opinion that the highest relevance cannot be given by the size, but by the dynamics of the informal economy, by its structure and the behavioral archetypes of the economic actors involved, it is widely accepted (the individual offering the job, the firm, the government). This paper tries to accurately present all the dangers and the consequences of an informal economy

**Keywords:** informal economy, economic actors, tax evasion, ghost companies, underground economy, black work market, clandestine labour.

**JEL Classification:** A1, B4, D00, E2, E26, H26, J21.



## 1. Introduction:

We find informal economy in all industrialized countries, but also in developing countries. Informal economy has adapted to its environment, by escaping economic and social regulations, and resisting to development and recessions. This capacity to adapt is found nowadays in Eastern European countries, through its so called secondary economy. Smuggling in the current system is represented by drug trafficking, weapon trafficking and other illegal or regulated acts.

The positive or negative influence of the informal economy is a widely studied phenomenon, mainly because of the view that the effects are mostly negative, however, there are also positive effects related to the revival of some economic branches, the elimination of rigidities or the increase of the stability of the state

## 2. Tax evasion

The term tax evasion, is currently used to define illicit operations, operations that cost the State Budget, unfortunately this term is not defined in Romanian law.

When the „Law against Tax evasion,, was developed in 1994, a certain interwar period tradition was considered; because in the interwar period the law that was used was called „repression law of tax evasion on direct contributions”; that is why this term was preferred against that of fiscal fraud [1]. In strictly practical terms, it is found that tax fraud is a real phenomenon in the Romanian economic landscape so that, as N. Hoanta argues, “it seems that no one is disturbed by its presence in all income activities” [2].

In the first years of the transition, tax evasion/fraud, manifested itself in direct

forms, without any coverage, the way some individuals acted could be considered “primitive” because all transactions were made in cash, sometimes directly in foreign currency, completely ignoring documents of fiscal and accounting nature, thus ignoring the payment of any tax obligations.

The state sector has been heavily used for masked lending to private firms or simply for transferring profitable activities to them, while negative externalities stayed in the Management of the State.

Due to the parasite activity carried out by these companies, mainly the records intermediation with collection of fees or unjustified commercial additions, these firms were called “tick companies”.

As a result of their knowledge expertise and know-how in the underground business, almost regardless of the field of activity, after 1994, they started to use tax avoidance techniques, creating a certain appearance of legality for the operations carried out. The purpose of these operations in the underground economy was purely economic, namely to infiltrate the market and to gain its most important segment.

The most used methods for avoiding tax obligations, justifying the provenance of goods introduced by smuggling or domestic clandestine production, and even for the reimbursement from the State Budget of particularly important amounts involved “phantom companies”.

Another example is that of an under evaluated import of goods, which means that the actual documents from the external supplier were substituted in customs by the importer, with counterfeited ones.

Subsequently, ghost companies will have to magnify the price from the under

evaluated one to the real one, thus gaining income without paying the fiscal obligations. At the same time, they will supply distributors counterfeited documents for goods destined for retailing.

The same principles are used for introducing smuggled goods into commercial circuit. In this case, the customs system is bypassed, there is no longer an importer, no fees are paid, smuggling is done, and the ghost company has the role of producing fictitious documents and fully assimilate the real value of the goods, including taxes, which theoretically are included in prices. In this case, unlike the complicated theoretical route followed by documents, the merchandise will be directed from the distributor to the retailers. On this short route: distributor - retailers, the goods circulate "on plain sight" and consequently they will be subject to tax obligations. Considering the example above, a commodity with a hypothetical value of 100 monetary units, reaching the retail area of 150 monetary units, will generate a loss of 36 monetary units out of a total of 37 monetary units that theoretically would be the level of budgetary obligations, thus more than 97% of the legal tax obligation - the same assessment principles were used as stated before.

We could also present the case where the phantom company is used to justify the unregistered production of a legally established company and / or the production of a clandestine workshop.

The only difference from the previous example is that the commodity does not come from outside the borders, so tax fraud is not amplified by smuggling. The amount of the damage generated for the State Budget will be diminished, compared to the same example, with the amount of the customs duty.

A specific case refers to the role played by phantom companies to amplify the price of some products intended for export. The reason for this operation is the increase in value added tax that will be recovered as a result of export.

The exporter builds a commercial chain with the help of phantom companies, resulting in a higher theoretical cost of the commodity compared to the real one paid to the manufacturer. Formally justifying payment to the system of intermediaries, some of which being ghost companies (off-shore companies), the exporter will request the refund of value added tax. Using this chain, most of the reimbursed value will be stopped, so the manufacturer will get only the real value of the goods.

Another method commonly used in recent years to evade tax obligations involves the assignment of companies that previously worked and garnered debts.

### **3. Black labor market and clandestine labor**

Pre-1989 statistics did not register an unemployment rate, but a complex contradiction developed behind this official situation.

After 1990, the new conditions triggered a rapid process of unemployment or early retirement of a large number of individuals as a result of the closure of many economic units, the reduction of activity or, in some cases, the introduction of modern technologies that replaced the individuals.

After the end of the period of social benefits, most of the unemployed are registered, at least theoretically, without any source of income. This social category has become a favorable factor for recruiting clandestine

labor.

In turn, employees have become for the most part, a social category paid much less than the others.

In 2001 the real average wage reached 63,1% of the wage value from 1989, according to specialists from the Institute for Research on Life Quality, and 25% of the employees have had, between 1997 and 1999, a 50% less in salary than the average salary on economy.

Analyzing the labor market, the authors of „Romanian underground economy” have determined, based on data provided by the National Institute for Statistics, that in 1998 approximately 658 000 individuals,

representing 13% of the labor force and 15% of the labor demand have worked on the black labor market [3]. The distribution on sectors of activity is presented in Table no. 1.

In order to estimate exactly how the black labor market operated, the study used 1993 National Account System, that demands the comparison of the supply and demand of labor existent on the market.

Labor demand is estimated on the basis of the annual structural survey, which provides information on the average number of employees per economic branch.

Table no. 1 – Undeclared labor distribution on sectors of activity (thousands of people) [4],

<i>Sectors of activity</i>	<i>Supply of labor</i>	<i>Demand of labor</i>	<i>Black labor market</i>
<b>TOTAL</b>	<b>5.139</b>	<b>4.481</b>	<b>658</b>
Industry	2.706	2.360	346
- extractive	190	185	4
- manufacturing	2.279	1.976	304
- energy	237	199	38
Constructions	431	414	17
Trade	907	816	91
Hotels-Restaurants	146	107	38
Transportation	416	373	43
Communication	109	96	12
Other services	425	315	110

Source: Adrian Cucu, „Underground economy”, Bren Publishing House, 2003

The labor offer is estimated on the basis of the household labor force survey (AMIGO).

The structural survey applies to commercial companies in all branches of the economy but does not include family associations and independent natural persons. In the public administration there is no "black labor work" and for the activities carried out in agriculture, they use special statistics.

The household labor force survey – AMIGO, originally introduced to provide intermediate data between population censuses, provides information on the number of full-time, part-time or casual workers that received salaries during the analyzed period.

Comparing demand and supply of labor by sectors of activity, leads to the number of persons that have declared to work in the analyzed period in a specific economic branch; the number of individuals recognized by the economic units as employees during the same period, and, in the end, the difference representing the black labor force used by the underground economy.

A problem with sensitive implications, somewhere on the border between black labor market and criminal activities, is represented by clandestine migration. Thus, on August 30th 2002, the main Romanian newspapers provided information according to Media fax data, that more than 220,000 Romanian citizens were returned from the border in an attempt to leave the country in the first 7 months of 2002, and during that same 6 200 illegal emigrants were sent back to Romania from European countries.

Considering that the reason these citizens were not allowed to leave the country was the lack of a minimum amount for living in the states they were supposedly visiting,

it follows that the touristic purpose of those journeys is also excluded on the basis of the presumption of good faith. It is likely that those emigrants have searched for a possibly seasonal, clandestine job in the European countries.

The figures presented are alarming because they account for about 5% of the existing workforce in Romania or about 33% of the underground labor determined according to statistical methods. These data supports our opinion that the individuals involved in underground economy is much higher, approximately with 500 000 people more.

Currently, it is estimated that there are 2-3 million Romanian citizens working abroad, which represents over 10% of the total population of the country, 20-30% of the employed population and 40-50% of the number of employees in 2007 according to Romanian statistics.

At the same time, according to official statistics, 30% of the population is involved in agriculture. In our opinion, the villages are practically abandoned by the individuals between 20 to 40 year olds, most of whom are abroad. Those who remain to work in agriculture perform an unregistered and non-taxed work, they do not pay social and health contributions, and they do not receive a salary. The work performed in agriculture or constructions is mainly paid by the hour or per day, and is generally illegal.

#### 4. Criminal activities

The most destructive segment of the informal economy has developed in Romania, according to the opinion of the specialists, on the "nuclei" of criminality, that made their presence known especially in the eighth decade, because of the social and economic crisis that took place during that period [5]. From the relatively succinct data available

to us today, we notice that most of the criminal activities specific to informal economy have made their presence felt, because of certain contact points in the Romanian space and in some cases the involvement is more pronounced.

Thus, the problem of international networks of human trafficking and prostitution, is probably the most pressing reality regarding the involvement of some Romanian networks in organized criminal activities.

A press study by Rompres Agency aimed at human trafficking reveals that a number of Western specialists believe that "Romania has moved from the status of transit country to the source country for organized networks." The same article quotes an article in the French Daily *Le Monde*, according to which "Romania has become a turning plate for the region for human trafficking[6].

These signals from outside our borders are not random, they demonstrate the emphasis of the phenomenon of organized crime and viewed from the point of view of globalization is a bitter "victory" of the Romanian criminal groups that have succeeded in infiltrating the existing system in the West by specific methods.

Regarding this kind of activity, the White Book on Organized Crime and Corruption explains the working methods of the individuals involved [7].

Another type of criminal activity, component of the informal economy that has emerged on Romanian territory, tenaciously strengthening its positions, is drug trafficking.

Due to its geographical position, due to the conflict in the former Yugoslavia, Romania became in the early years of the last decade an increasingly used variant, a segment of the Balkan drug route. Subsequently "from a former transit country, Romania has

also become storage space, where drugs are introduced. Especially through the southern border, drugs are stored for different periods of time and ultimately redistributed to high consumption countries."

Beyond these issues, the confirmation of the phenomenon implies that over the last decade the Romanian authorities confiscated over 20 tons of drugs and about one third of the individuals proved to be directly involved in these transactions were Romanian citizens.

## 5.Conclusions:

We can conclude that the balance of the world economy is relative in nature, trying to balance the factors of opposite action but with a dynamic character, gives a relative stability. It constitutes the most complex form of manifestation of general economic balance, including the national economic balances and all the sub region economic balances as well.

Governments have the interest of limiting the informal economy due to losses to the State Budget, even if it is known that some taxpayers disagree with the restriction in this sector.

The attempt of some States to reduce the informal economy as quickly as possible, on the grounds that its effects are predominantly negative, could have long-term positive consequences but will certainly affect those who are not favored by a competitive environment and who otherwise found refuge in the informal sector. We believe that the reduction of underground phenomena should be accompanied by a cogent analysis of the development and absorption possibilities existing in the legal economy.

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## Elements Of Configuring Pension Systems

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**Abstract:** Social policies have a special role in economy as they support the population, especially that part of the population experiencing a decrease in working capacity. Social services have a major role in social policies, whose domains of reference are: social security, housing, health, education, unemployment, etc. They do not only analyse society and its problems (inequality, poverty, discrimination, unemployment), but solve the respective issues by specific means including decisions and actions to increase welfare.

When designing social policies, one must also consider the architecture of the structures implementing the programs through which this wealth is generated. Account should be taken of the fact that international studies show that people around the world are concerned about a number of serious demographic issues such as the steadily declining birth rate and the fast growth of the average age of population. Thus, the population of an increasing number of states is reduced, but at the same time we are witnessing a global aging phenomenon. These trends became visible decades ago; however, population aging has been having a negative impact in recent years. Throughout the world, states have reformed or reconfigured their public pension system, mainly by introducing private savings schemes for retirement. The causes are generally the same: the population ages, the periods of pension payments increase, the number of social security contributions decreases, public pension no longer provide a reasonable rate of replacement of the income from the active period, and the public pension systems are no longer enough for the payment of pensions.

**Key words:** pension funds, prudential supervision, economic crisis



## Introduction

The phenomenon of population aging is a process that has been gaining significance in the last forty years; it occurs globally and its severity has been acknowledged over the last few years. This was also possible due to the fact that modern computing techniques provide more pertinent analyses, concurrent with widening the available databases useful in studying this phenomenon.

As can be seen from United Nations data and information, the proportion of the elderly is increasing and will continue this trend on long term, even in those regions where the birth rate is higher than the replacement rate.

The changes already made in the structure of older age groups have a stronger impact than hoped for the economic, social and political development.

The effect of aging population such as the benefits that each state has to provide for citizens will have to be granted over longer periods than 40 years ago and to remain sustainable; social security systems will have to change radically.

Increasing life longevity can lead to multiple costs and an increased demand for dedicated services, as elderly people are generally vulnerable to various chronic diseases.

Reducing fertility and mortality rates is the main determinant of triggering and expanding the aging process.

In addition to actions aimed at achieving the welfare of population, it is also necessary to consider the ways in which specific actions in the field can be achieved at the highest level of efficiency.

Social policies can also be viewed from a different perspective as concrete activities of government policies including all social

services that contribute to increasing the well-being of the citizens in a country.

Thus individual and collective well being can be achieved both by direct mechanisms arising from the functioning of the market, when it is primary distribution linked to the allocation of resources and income mechanisms and redistributive mechanisms such as transfers.

Primary earnings obtained directly by market mechanisms can define at a first level the collective welfare. The market itself shows that there are a number of limits preventing the desired welfare level in a society.

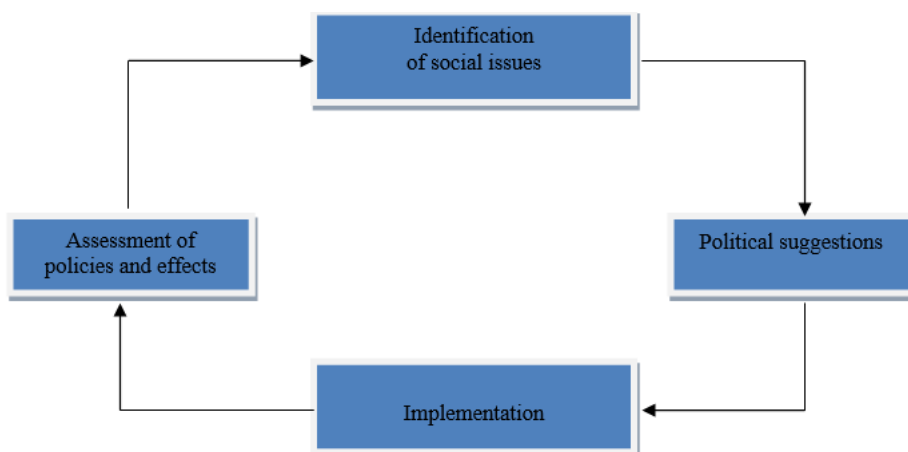
### 1. The need to reform the pension system

Goods that characterize collective welfare, especially public or social ones, tend to be produced in insufficient proportions in the market economy. For this reason, it is necessary to intervene with corrective mechanisms (redistribution of welfare) supporting the population in need and which essentially represents the object of social policies.

By considering political science, the notion of cyclical political process, generating and reviewing social policies can be described as an iterative model, as can be seen in Figure no. 1 on the Policy Cycle<sup>1</sup> [Cace C., 2004].

1 Cace, C. (2004) Asigurările sociale - management, evoluții și tendințe. București, Editura Expert

Figure 1 Policy cycle

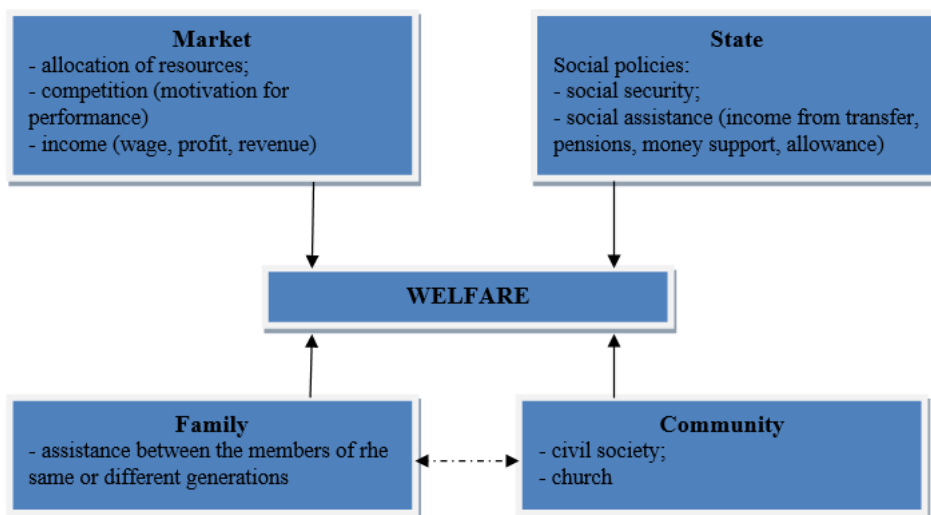


Welfare is a complex notion including a series of mechanisms by which it can be achieved; the literature is rich in this field. Figure 2 - Sources of individual welfare shows a synthesis. Most authors consider

that the main sources of welfare are: the market, family, community and the state<sup>1</sup> [Preda M., 2002].

2 Preda M. (2002) Politica socială românească între sărăcie și globalizare. Iași, Editura Polirom.

Figure 2 Sources of individual welfare



Redistribution of welfare is done by:  
- funding from the government or collectively for public goods or goods of public

interest and support for consumption of public interest goods by gratuitousness, subsidies, tax incentives;

- financial transfers – revenue by transfer (by social security or social assistance mechanisms) or transfers in kind (by exclusive social assistance mechanisms).

Social security can be defined as a set of measures established by law, designed to maintain individual or family income or to provide income if all sources of income have disappeared or when exceptionally large expenditures arise, which can expose the population to risks (child raising costs, payment for health care).

At the same time, social security can provide financial resources for people in need for various causes (such as sickness, disability, unemployment, loss of life partner, maternity, childcare, and retirement from active life).

Social insurance is a special form of protection that society grants to its members, assistance which counters the effects of various economic risks (loss of income due to illness, reduced work capacity in old age, unemployment).

Some authors consider social insurance as a component of the social security system seen as a sector of social policies, or, in some cases, the sign of equality between these terms.

Social insurance is significantly different from other forms of public assistance or support. The resulting benefits generally depend on contributions and become a right of those who receive them.

Contributions come from employees, employers and, in some cases, from state budget. They are collected in special funds that provide the financial support of the benefits.

Most of the nations have developed complex social security programs over the

years.

They have many elements specific to the national culture (seen in a broad sense) of the countries concerned but, at the same time, they have a number of common features:

- they are related to the so-called social risks that may materialize during an individual's life;
- they are regulated by law;
- they provide financial benefits to individuals who have lost their income due to their advanced age, correlated with the increase of their work capacity (by disability, sickness, maternity, work accidents, unemployment) when the risk becomes evident;
- getting benefits depends on their contributions.

The existence of broad regulatory framework on the use of compulsory insurance as a mechanism for obtaining various social benefits means accepting the increase of state intervention.

In most cases this means an increase in taxation as a way of financially supporting the benefits of the entire social security system, which is why social security contributions can also be considered as taxes on the income earned by the active population.

## 2. The economic impact of aging in literature

The relation between the economic policy and population change has been analysed under various aspects in literature. According to a research on how population growth can affect economic development, there are three

schools of thinking<sup>2</sup> (Bloom et. al, 2001).

According to this pessimistic view, population growth restricts economic development due to the demand from the population that exceeds the supply of fixed resources.

The history of this theory can be traced back to Malthus (1798); it was periodically sustained over the centuries; the most influential opinion was Ehrlich's, whose work is entitled "The Population Bomb" (1968).

Later, economists disagreed with the pessimistic school of thought, respectively since the 1980s, arguing that the prices of many fixed resources decrease on the long term due to technological innovation.

Therefore, as the population grows, the ingenuity of mankind grows as well (Bloom et al., 2003).

The group of optimists who promoted these ideas was led by Julian Simon, who proved that fast population growth can rapidly lead to a positive impact on the development of economy in the work "The Ultimate Resource" (1981).

Considering these elements, a series of economic analyses later concluded that the statistical correlation between population and economic growth is weak, thus leading to the emergence of a neutralist school; in their view, the population issues have a relatively minor role in influencing the general economic environment.

Bloom et al. (2003) also showed that any of the three schools of thought may return to the theoretical models anytime and the data will more or less be able to support their assumptions.

2 Bloom, D.E., Canning, D., Sevilla, J. (2001), The Demographic Dividend. A New perspective on the Economic Consequences of Population Change, A RAND program of Policy-Relevant Research Communication;

Also noteworthy is the analysis<sup>3</sup> made by Nagarajan et. al. (2013) on the literature regarding the impact of aging population on economic growth. The authors' purpose was to review over 600 scientific papers published between 1975 and 2013, which were focussed on the economic growth and how the aging population could affect it. Thus, their aim was to analyse how important this research topic was in the literature, and ultimately to identify those scientifically relevant works concerning the mechanism involved in the relationship between aging and the economy.

It can be said that the influence of the aging issue on economic development is fully undergoing development and thus a series of studies dealing with this topic began to appear in the literature.

Mainly, there are two trends stating that the relationship between population aging and economic growth is either negative or positive.

The first trend includes the research<sup>4</sup>,

3 Nagarajan, R., Teixeira, A.A.C., Silva, S. (2013), The impact of aging population on economic growth: an exploratory review of the main mechanisms, forthcoming, FEP Working Paper, Faculdade de Economia da Universidade do Porto

4 Narciso, A. (2010), The impact of population ageing on international capital flows, MPRA Paper, 26457;

paper<sup>5</sup>, analysis<sup>6</sup>, research<sup>7</sup>, done by Narciso (2010), Bloom et. al. (2001), Lisenkova et al. (2012), Walder and Döring (2012).

The second trend includes the studies<sup>8</sup> and research by Lee et al (2011).

An important element of the empirical analysis carried out in the literature regarding demographics mainly but also the economic impact due to the aging of population, points out that the impact of aging population on economic growth does not significantly vary from the perspective of the main dissemination mechanism. In general, irrespective of the mechanism (consumption and saving patterns, public expenditure and human capital), the preponderance of the negative effects of aging on growth is obvious (covering over 70% of all events).

Some authors consider that a decline in household savings due to aging is associated with a simultaneous decline in the real yield of capital taxes or real interest rate yield,

5 Bloom, D.E., Canning, D., Sevilla, J. (2001), The Demographic Dividend. A New perspective on the Economic Consequences of Population Change, A RAND program of Policy-Relevant Research Communication

6 Lisenkova, K., Mérette, M., Wright, R. (2012), The Impact of population ageing on the labour market: evidence from overlapping generations computable general equilibrium (OLGCGE) model of Scotland, Discussion paper in Economic, Strathclyde, 12-13;

7 Walder, B. A., Döring, T. (2012), The effect of population ageing on private consumption – a simulation for Austria based on household data up to 2050, Eurasian Economic Review, 2: 63 – 80;

8 Lee, H. S., Mason, A., Park, D. (2011), Why does population aging matter so much for Asia? Population aging, economic security and economic growth in Asia, ERIA Discussion Paper Series, ERIA-DP-2011-04;

which is considered an important, negative effect on economic growth

There is, however, a smaller number of articles (about 11% of the total) who, by empirical research, find a positive relationship between consumption, saving and the aging of the population. A convincing example is China, where economic growth occurs at the same time as an increase in the dependency ratio of the aging population.

### 3. Reforming pension systems at international level

Given the phenomenon of population aging, but also the declining birth rates, and the fact that public pension systems are increasingly struggling with these elements, private pension systems have become more significant.

Such systems are designed in different states and are in different phases of development, namely in the accumulation phase or in the benefit payment phase.

Depending on their functioning, needs and regulatory and supervisory institutions, the private pension schemes developed so far have different features.

In order to classify pension systems, a number of criteria may be considered, namely:

a. depending on the way of financing, there are

- “pay as you go” systems - they are based on the principle of social solidarity between generations - employees pay for the retirement pensions of the people retired at that time; usually they are mandatory and publicly managed;

- privately managed funded schemes
- the participant pays contributions or, may

be, the participant and the employer pay;

- kept in accounting records.

b. Depending on the legal basis and the way of establishment, there are:

- systems established by law;
- systems established by collective agreement;

c. depending on the way of joining, there are:

- mandatory systems;
- voluntary systems;

d. considering the type of benefits obtained, there are:

- defined contribution (DC) systems - with defined contributions - the benefits obtained vary according to the results of the investment of the participant's assets;

- defined benefit benefits (DB) (defined benefit) - a certain benefit is established and contributions calculated to achieve this benefit;

- hybrid systems - brings together features of both DC and DB systems;

### 3.1 The pension system in the European Union

There is no uniform scheme of the pension system in the European Union; there are different combinations of the three pillars of traditional classification in each Member State:

- the first pillar - regulated pensions;
- the second pillar - occupational pensions - related to the work place, established by employment contracts;
- the third pillar - individual pensions, unrelated to the job;

### 3.2 The pension system developed by OECD

OECD<sup>9</sup> has developed its own pension classification, valid in the Member States, which includes:

- public systems - pension social insurance and other similar systems, private schemes, administered by private institutions other than the government;
- occupational schemes / individual pension systems - personal;
- systems with compulsory / voluntary participation;
- defined contribution (DC) systems - defined benefits / DB (defined benefit) - defined benefits;
- systems which are financed / not funded / kept in employers' accounting records;

### 3.3 The World Bank's pension system

At the level of the World Bank, a three-pillar classification is used but with the following meanings:

- pillar I - "pay as you go" public pension schemes - PYG, publicly managed, DB type;
- pillar II - privately administered pension schemes of DC type;

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<sup>9</sup> The Organization for Economic Cooperation and Development (OECD) is an international organization of those developed nations that accept the principles of representative democracy and free market economy. The Organization originates in 1948 as the Organization for European Economic Cooperation (OEEC), to help manage the Marshall Plan for Europe's reconstruction after the Second World War. Later membership was extended to non-European states, and in 1961 it was reformed with the name Organization for Economic Co-operation and Development (OECD), French: Organisation de coopération et de développement économiques.

- Pillar III - privately-managed, voluntary, based on individual accounts.

3.4 The private pension system in Central and Eastern Europe, Western Europe and globally

In Central and Eastern Europe, 11 states have adopted the multi-pillar private pension model recommended by the World Bank. The reform started in the region in 1994, first with the third pillar of voluntary private pensions and then with the pillar II of compulsory private pensions.

The countries in the region have adopted the World Bank's basic model, adapting it and amending it in national legislation considering their specific features. On the list of countries in the region, which are considering similar reforms, are the Republic of Moldova, Ukraine, Russia and other countries. At the end of 2008, the 11 private pension systems in Central and Eastern Europe operated over 300 private pension funds, which managed around 60-65 billion euros for more than 35 million clients.

In Western Europe, private pension schemes are different from the Eastern ones. The basic model is that of occupational private pensions as regulated at the level of the European Union by Directive 41/2003 of the European Parliament and of the Council of the European Union on the supervision of occupational pension institutions offered and managed by employers.

As a rule, the practice came before the law, as companies began to offer "private pension packages" long before the field became officially regulated. Differences to the Eastern system, such as the Romanian one, are multiple and very complex. Not all Western states have private savings schemes,

although public pension systems face the same demographic issues as those described above.

Globally, more and more countries resort to the private solution to reform their public pension system. The Occupational Pension Model, very widespread in Western Europe, is also adopted in the United States and many other countries. The differences between private pensions schemes around the world are, however, even more complex than those on the European continent.

Globally, the total assets of private pension funds amounted to around 20-25 thousand billion euros (trillion euros) at the end of 2008. The number of people saving on old age in various private pension schemes exceeds one billion people.

#### **4. The reform of the pension system in Romania**

Romania is in the same situation or even worse than the global or regional average. All the research (the World Bank, the International Monetary Fund, the United Nations, the European Union, the European Bank for Reconstruction and Development, the National Institute for Economic Research in Romania) show the same: Romania's population is in a significant falling and aging trend, which, in the absence of deep reforms, will lead to the explosion of the "demographic bomb" in decades.

Reduction and aging of population means increasing pressure on the public pension budget (Social Insurance Budget), which has to support, with fewer contributors (employees and social contributors), an increasing number of beneficiaries (pensioners in the public system).



Romania's demographic problems show that the public pension system is no longer sustainable in its present form and requires profound reform in order not to collapse in the future decades.

The pensioners' contributions during their active life have not been directed to a fund, which is in banks, where interest rates continuously increase the amounts. The state social insurance system in Romania operates based on the principle of intergenerational compensation.

In fact, solidarity between generations is manifested by the fact that active people finance the current pensions of those who have lost their working ability. Revenue comes from social security contributions paid by economic agents and employees.

This is the main reason why the Romanian government introduced the private pension system in 2007, following a model tested and recommended by the World Bank. The private pension system is made of pillar II - mandatory and pillar III - optional, private pensions.

Currently, over 30 countries around the world have adopted similar multi-pillar pension systems on the World Bank's recommended construction. Most are located in Central and South America (the first time in Chile in 1979).

In all these states, including Romania, the public pension system is fully influenced by the impact of the "demographic bomb":

- 8.2 million employees contributed to the public pension system, supporting 2.5 million beneficiaries (state social security pensioners) in 1990;

- 4.9 million employees contributed to the public pension system, which supported 4.7 million beneficiaries (state social security pensioners) in 2008;

- the ratio changed from almost 3.3 employees who supported a pensioner to an almost equal ratio (according to data from the National Institute of Statistics of Romania - INS).

The public pension system (the so-called state pillar I) operates according to the redistributive principle (PAYG = pay as you go): the state collects social pension contributions from employees and pays them immediately, in the form of pensions, to current retirees.

Statistical data already shows that this redistributive logic can no longer operate on a sustainable basis for too long from now on, considering the demographic issues.

Employees (contributors) will be fewer and pensioners (those who benefit from the public pension system) will be more and more.

Another issue is that of the pension-wage ratio, which, according to a report<sup>10</sup> of the European Pension Funds Federation (EFRP<sup>11</sup>) states that the ratio of the state pension and the average wage in the Member States of the European Union will be reduced by 20 percentage points.

## Conclusions

A solution to solve this dilemma is the private pension system, where each participant can save for his own future.

The private pension system has several advantages compared to the public ones:

10 "Business perspective on financial market reforms"

- <http://www.efrp.eu/LinkClick.aspx?fileticket=tYwg0DXAl5E%3d&tabid=1402>

11The European Federation for Retirement Provision - represents national associations of pension funds from European countries, including APAPR (The Association for Private Pension Funds in Romania)

- Participants' money is invested on long term, rather than being immediately spent, and the participants have the right to own their own accounts where their pension money is saved;

- The private system gives participants the opportunity to a decent pension at retirement;

- Competition between administrators, as well as existing regulations, ensure the

efficiency of the system, i.e. effective returns on investments made with participants' money.

It is therefore necessary to continue to implement and develop new components within the pension system, privately managed, voluntary and compulsory, under the conditions of transparent and efficient public control over its management.

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# Innovation From The Autopoietic System Theory Perspective

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**Abstract:** Without a comprehensive and generally accepted definition, but with a long history, the innovation concept is used, in different approach, for almost all areas of live. It has been, and continues to be an important topic of study in all spheres of science and a term often used by policymakers, practitioners and academics from various fields. The “need for innovation” appears in all spheres of science, new innovation theories continue to develop, and a tendency to shift the innovation models from macro-level to organization (firm) level is manifested. The paper offers, from the autopoietic system theory perspective, a new vision of the innovation concept, which can be interpreted as similar, but not equal, with the survival knowledge process. We propose a new approach of the concept of innovation as knowledge, both for new possibilities of evolution of the organisation, as well as for new, yet inactive, perturbation in environment and internal organisation (structure). Moreover, the more knowledge is embedded in the organisation, about the environment and internal structure, the number of possibilities is reduced (even if the reduction is from a high number of infinities to a lower number of infinities).

**Keywords:** innovation, autopoietic system theory, creativity, knowledge, system view of creativity

**JEL Classification :**A10, O00, O30

## Introduction

Innovation, as concept, is perceived as the generation, acceptance and implementation new ideas, processes or services. The concept of innovation has been defined differently, depending on the field in which it was used. In general, innovation was defined, similar to creativity, as either an outcome or as process. In fact, the process and outcome are inseparable, from each other. It was Csikszentmihalyi (1999) who combined the two concepts into a system view of creativity. He found that creativity and innovation are not distinct phenomena and explain the complexity of relationship between the process and outcome (change in structure) and the past („old”), which is a precondition of novelty and actual and possible („new”). Recently, the interlinking of the „old” and the „new” was investigated by Bakken (2009) and Iba (2010), from the autopoiesis perspective. Bakken points that the innovation is dependent on the level of redundancy, while Iba provides an autopoietic system theory of creativity. According to the theory, an autopoietic system is an system self-reproducing and autonomous unit, which interacts with its environment through structural coupling. The organization of knowledge, creativity and innovation embedded the autopoietic system cognition, social autopoiesis and organizational autopoietic theory. The study reveals the need to link innovation to evolution in a different path from the survival evolution and for this to happen there is a necessity for a different process, created by cognition at a higher level, and, most important, it has to have a purpose that is fundamentally different from the survival of the organisation. That means that if we consider innovation a necessary process from a survival point of

view, we maximise the risk of environmental destruction and own (individual and species) destruction.

### 1. Conceptual approach of innovation from historical perspective

Along its tumultuous way, the innovation concept has had an interesting development: from the general opposition, in all fields - economics, politics, law, science, education and religion, the dominant perception until the beginning of the nineteenth century, till nowadays, when it has become a buzzword, used for any change, often without any scientific rationale. That's why it was impossible to formulate a generally accepted definition, that would present all the aspects under which innovation is known.

Depending on the relevant aspects considered by the different fields of science, this complex and broad concept appears under different conceptions. In the Organization for Economic Cooperation and Development (OECD) view, innovation consists in “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations” (OECD, 2005, p.46).

We consider important to mention that during the “golden age” of innovation (1960s – 1990s), were developed new models for analysis the innovation processes and several studies have tried to define, classify the different types of innovations. In the works of Cooper (1998) and Gopalakrishnan & Damanpour (1997), [quoted by Kotsemir, Abroskin, (2013)], the innovation concept is defined as (i) a process that encourages change

or (i) an event, object, or a discrete product, characterized by novelty. Damanpour, (1996) defines innovation as an outcome, too: „...innovation is here broadly defined to encompass a range of types, including new product or service, new process technology, new organization structure or administrative systems, or new plans or program pertaining to organisation members.”. (Godin, 2008) consider that „innovation is everywhere” and that it „has become the emblem of the modern society, a panacea for resolving many problems, and a phenomenon to be studied”. He analyses the innovation as category identifying its meanings and distinguishes several interpretations. listed concisely by Kotsemir, Abroskin, (2013):

- innovation as process of doing of something new:
  - innovation as imitation;
  - innovation as invention;
  - innovation as discovery;
- innovation as human abilities to creative activity:

- innovation as imagination;
- innovation as ingenuity;
- innovation as creativity;
- innovation as change in all spheres of life:
  - innovation as cultural change;
  - innovation as social change;
  - innovation as organizational change;
  - political change;
  - technological change;
- innovation as commercialization of new or improved product or process.

From historical perspective, the innovation concept and models were developed since the last decades of the XIX century till nowadays. A detailed analysis of evolution of innovation studies' as well as concepts and models of innovations since 1890-s till 2000-s splitted in decades belongs to Kotsemir & Abroskin, (2013), of which we mention the developments of 2000-s (table 1)

Table 1. Development of innovation concepts and models in the 2000-s

The innovation concept	The research' author
financial innovation concept	Friedman, 2000; Goodhart, 2000; Woodfor, 2000; Tufano, 2003; Alvarez and Lippi, 2009;
the eco-innovation concept	Jones and Harrison, 2000; Rennings, 2000; Jones et al. 2001; Nuij, 2001; Smith, 2001; Rai and Allada, 2005; Beveridge and Guy, 2005; Pujari, 2006; Carrillo-Hermosilla del Río and Könnölä, 2009;
the lead user concept in the framework of user innovation concept	Luthje, 2000; Lilien, et al. 2002; Intrachooto, 2004; Luthje and Herstatt, 2004; Skiba and Herstatt, 2009; Skiba, 2010, Oliveira and Von Hippel, 2011;
national systems of innovation mode (in theoretical as well as empirical direction)	Chudnovsky Niosi and Bercovich, 2000; Etzkowitz and Leydesdorff, 2000; Nasierowski and Arcelus, 2000, 2003; Nelson, 2000; Edquist, 2001, 2004; Lundvall, 2002, 2007; Lundvall et al., 2002, Niosi, 2002; Monttobio, 2008, Pan, Hung, Lu, 2010;

theories of growth of regional clusters of innovation and high technology	Keeble & Wilkinson, 2000;
emergence of the toolkits for user innovation concept in the framework of user innovation concept	von Hippel, 2001; von Hippel and Katz, 2002;
the methodology for the international and national R&D statistics and STI policy measurement	Gokhberg, Gaslikova and Sokolov, 2000; Boekholt et al., 2001; ESCWA, 2003; Katz, 2006; Tijssen and Hollanders, 2006; Gokhberg L. and Boegh-Nielsen, 2007; OECD, 2007; Gokhberg, Kuznetsova and Roud, 2012;
the theory of social innovation	Mumford, 2002; Moulaert and Sekia, 2003; Westley, Zimmerman and Patton M. 2006; Kohli and Mulgan 2007; Mulgan Ali and Tucker 2007; Nichols, 2007; James, Deiglmeier and Dale, 2008; Nambisan, 2008, 2009; MacCallum, Moulaert, Hillier and Vicari, 2009; Goldsmith, 2010; Howaldt and Schwarz 2010; Murray, Caulier-Grice and Mulgan, 2010; Gill, 2012;
innovation intermediary concept	Wolpert, 2002; Stewart and Hyysalo, 2008; Sieg, Wallin and von Krogh, 2010;
technological innovation system concept	;Bergek, 2002; Smits, 2002; Hekkert et al., 2007; Negro, 2007; Bergeck et al, 2008; Suurs, 2009;
open innovation concept	Chesbrough 2003; Vemuri and Bertone, 2004; Zhao and Deek, 2004; Chesbrough, Vanhaverbeke and West, 2008; von Hippel, 2011; Penin, Hussler and Burger-Helmchen, 2011; Pearce, 2012;
the collaborative innovation network concept in the framework of open innovation concept	Gloor, 2005; Gloor and Cooper, 2007; Silvestre and Dalcol, 2009;
user innovation concept	von Hippel, 2005; Braun, 2007; Bilgram, Brem, Voigt, 2008; Nambisan and Nambisan, 2008; Bogers, Afuah, Bastian, 2010.

Source: Maxim N. Kotsemir, Alexander S. Abroskin, 2013, „Innovation concepts and typology – an evolutionary discussion” – Basic research program, Series: Science, technology and innovation -Working Papes BRP05/STI/2013

Even if, at the companies level, the dimension of impact from innovation is neglected, it seems that companies or countries investing in innovation are the most successful ones. (Kotsemir, Abroskin, 2013).

## 2.The system view of creativity and innovation

At the organisation level, “innovation represents the core renewal process in any organisation. Unless it changes what it offers the world and the ways in which it creates

and delivers those offerings it risks its survival and growth prospects. But innovation is not an automatic attribute of organisation; the process has to be enabled through sophisticated and active management." (Bessant, Lamming, Noke, & Phillips, 2005).

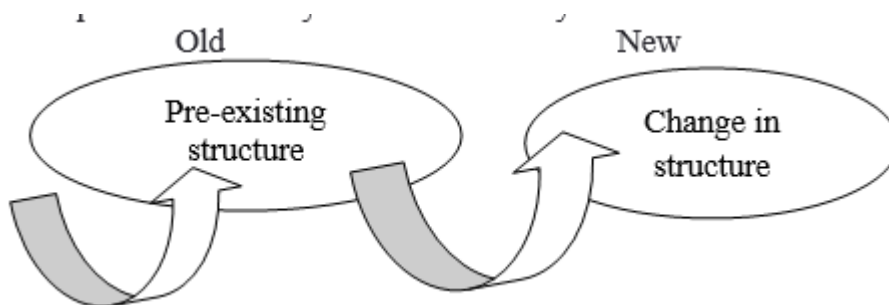
The innovation, similar to creativity, can be define as process and as outcome, not only one or the other. „Innovation can be seen as a dynamic network or system, which renews existing structures of products, services, processes, systems, businesses. This renewal is accepted and preserved in society and commercially utilised. It can be seen then that both phenomena of creativity and innovation have been defined as both an outcome and a process. The process and outcome are inseparable from each other"(Auernhammer, 2012).

The creativity and the innovation were introduced into a system of creativity by Csikszentmihalyi (1990, 1996, 1999). In his view, creativity and innovation occur when

a person produces a change in a domain, that will be transmitted through time and this change is inserted into society and the domain adapts it. Innovation and creativity cannot be interpreted as being outside the system in which the phenomena occurs. The production of novelty and change of the system („New”) emerges in relation to the existing system structures („Old”):

“The ‘New’ is only meaningful in reference to the ‘Old’. Original thought does not exist in a vacuum. It must operate on a set of already existing objects, rules, representations, or notations. One can be a creative carpenter, cook, composer, chemist or clergyman because the domains of woodworking, gastronomy, music, chemistry, and religion exist and one can evaluate performance by reference to their traditions. Without rules there cannot be exceptions, and without tradition there cannot be novelty.” [Csikszentmihalyi, (1999), quoted by Auernhammer, (2012)].

Figure 1. Self-production of a system and creativity and innovation as a change in structure



Source: Auernhammer, (2012), p. 37



From a system view, innovation and creativity were investigated using a self-reproducing systems theory (autopoietic system theory), [ Bakken, et al (2009a, 2009b), Iba (2010, 2011)], which provides both the interlinking of the 'Old' and the 'New' as self-reproducing systems and the interlinking of the process and outcome of creativity and innovation. (Figure 1). The system reproduces itself through the interaction of structure and process and innovation. According to Morgan (2006), "any system with an ability to self-organise must have a degree of redundancy: a kind of excess capacity that can create room for innovation and development to occur. Without redundancy, systems are fixed and complete static." In this context, we consider important to emphasize that a system is able to change with its own components and resources, only when it have a degree of redundancy and that innovation can be understood as a change in the system structure [Csikszentmihalyi, (1999) and Bakken, et al (2009a, 2009b), quoted by Auernhammer, (2012)]. A system which recursively reproduces itself through its own structure and operation, is an autopoietic system (Maturana & Varela, 1980, 1992).

### 3. Knowledge and innovation in the autopoietic systems theory

If we want to discuss the issue of innovation, we first need to refer to a autopoietic system theory that will help in framing our approach. For that, we consider important to point the three approach of the organizational theory:

- „absolut view“ (current mainstream approach) – organisation is a concrete input-output entity with organisational structure

and culture, there processes are interactions between goals and structure. Even if, this view, allows for a perspective of the organisation as a open-system and is focused on how the system survives at the environment fluctuations, the problem with such static structure is the impossibility to describe emergent processes and structural change that occurs in complex, dynamic entities;

- „process view“ – organisation is defined as processes of combined events. Order or structure within the flow is constituted by relatively stable patterns of behaviour that repeat themselves, which change relatively slowly (March & Simon, 1958, p. 170). In the 'process view' change must not be thought of as a propeliy of organisation, but rather organisation must be understood as an emergent property of change (Tsoukas & Chia, 2002);

- „self-reproducing view“ - 'The organisation' and 'organising' should not be seen as separate phenomena, but rather as a recursively interacting phenomenon (Hernes, 2004, pp. 30-40). In a entity, „organisation“ (structure) and „organising“ (process) are different aspects of unitary phenomenon. The dynamics or organisations (process) produce the boundaries and structure (entity) and the boundary and structure (entity) is essential for the operation of the organisation (process) (Maturana & Varela, 1992, p. 46).

Using the autopoietic system theory, for our view on societal organisation, allows for creating the perspective of the organisation as an entity, a self-reproducing system with embedded structure and processes.

Autopoietic system theory has been applies and developed in several fields. Autopoiesis in biology and cognition has been developed by Maturana & Varela (1980,

1992) and it has been applied and developed for human systems and social theory. The social autopoiesis theory has been developed by several scholars such as Luhmann (1986, 1995, 2003, 2009) and Fuchs (2002, 2003, 2008; Fuchs & Hofkirchner, 2009). More recently scholars started to investigate creativity and innovation from an autopoietic system theory (Bakken, et al., 2009a, 2009b; Iba, 2010, 2011).

The organisation of knowledge, creativity and innovation incorporates (Auernhammer, 2012):

- the autopoietic systems of cognition (knowledge creation, thought collectives and creation of creative discoveries);
- social autopoiesis (communication, interaction and social structures) and
- organisational autopoietic theory (regulations and organisational structures)

From the literature we can extract ideas that are useful for understanding the perspective of autopoietic systems :

• The autopoietic system realises itself through a particular structure and the changes it can undergo are determined by this structure as long as self-reproduction is maintained (Mingers, 1995, p. 35);

• Autopoietic units can interact with other systems and their environments, by which structural change can occur within the system through the interaction (Maturana & Varela, 1980, pp. xx-xxi; 1992, pp. 74-75; 180-201). Structural coupling is an important attribute, as it allows for change in the structure, but the change is not directly caused by exterior factors, but indirect by interactions that can lead to such structural change. Moreover, the change is not bound to be permanent, only if the change affects the processes of reproduction it will perpetuate,

otherwise the change will be lost;

• Autopoietic systems are autonomous unities. Autonomous unities are operationally closed. Two important ideas emerge from this characteristics : firstly, the system produces its own boundary and secondly, within its boundaries it can specify its own laws (Maturana & Varela, 1992, pp. 46-49).

Varela et al. (1974) listed six criteria they considered to be necessary and sufficient conditions for recognizing a system to be autopoietic:

- Bounded. People know what organizations they belong to by boundaries that can be in physical forms or non-physical;
- Complex. Organization members are individually unique, recognize one another as members, and are identified as such within the organization;
- Mechanistic. Individuals receive rewards and benefits to belong, and are involved in processes that the organization conducts to ensure its survival;
- Self-referential. Rules of association, determined within the organization itself, what people and property belong to the organization;
- Self-producing. Members are recruited from the environment, inducted, trained and managed;
- Autonomous. Most organizations outlive the association of particular individuals, and are readily able to hire, induct and train new individuals to replace other people as they retire or leave the organization.

#### 4. Knowledge, cognition and culture in autopoietic societal systems

During the evolution of organisations is necessary to exist some form of knowledge

creation and transmittence (in any way possible) to ensure the ability of the system, first, to survive to various internal and external chances that already happend some time in the past and, secondly, to ensure that new members and next generations have the ability to identify and respond to previously know changes.

Two domains of shared knowlegde can be distinguished in the evolution of organisations from simple form of cooperation to autopoietic systems and they can be described using Karl Popper's words, in:

- Social transmission of tacit (world 2) knowledge from one generation to the next with the social involvment of young members (Perry 2006, 2011) via copying, learning;
- Storing and sharing explicit knowlegde (world 3) via tools of recording, preservation and communication sharing. Although collecting and transforming this knowledge from people's heads into explicit forms involves genetically determined capabilities of human cognition, the resulting body of knowledge is now vastly larger than that held in the human genome and is growing exponentially at ever increasing rates as our cognitive technologies become ever more powerful. (Hall 2011).

Evolutionary knowledge generated by organizations is tacitly embodied in the physical and procedural structure of the organization (Nelson & Winter 1982; Dalmaris 2006; Dalmaris et al. 2007), and explicitly in organizational documentation (Hall 2003). Some knowledge specifically relating to the organization is held in human memories, but the "bounded rationality" (Simon 1955, 1957) of organizational members means that no one person can know everything the organization needs to know in order to maintain

itself and respond adequately to meet organizational imperatives in a changing and competitive environment (see also Else 2004; Nousala et al. 2005; Nousala 2006; Dalmaris et al. 2006; Martin et al. 2009; Philp & Martin 2009; Hall et al. 2011), thus knowledge required for maintenance of the organization must be distributed beyond the limits of any one individual in the organization.

☉ We need to draw the conclusion that all knowlegde is constructed by autopoietic systems and autopoiesis cannot exist without knowledge

Building survival knowledge in self-producing systems is possible only if the system can persist enought to accumulate a connected history among its units. That means that knowlegde is embeded in the system structure and it is used for construction and reproduction of the system.

Hall (2013) defines cognition as the sum of the processes within autopoietic systems by which this survival knowledge is applied to solve problems: „Even if systems that are only partially or temporarily autocatalytic disintegrate to return their assembled components to the environment, those producing more components of kinds involved in their partially autocatalytic structures will facilitate emergence of other autocatalytic systems depending on properties of those kinds of components. This structural heredity determines the dynamic processes maintaining autopoiesis.”

Hall's view serves very well for explaining the concept of culture as social sharing knowledge at a higher level of organisation: „Culture can be defined as patterns of behavior and knowledge shared by a population of individuals that depends on capacities for learning and transmitting knowledge

between individuals and from individuals of one generation to the next. This is contrasted to the genetic transmission and inheritance of knowledge in the form of instincts and innate behavioral propensities. The development of culture in this sense depends on fairly high degree of cognitive capacity, beyond the development of a genetically programmed behavior, involving individual abilities to observe, orient, decide and act. Thus, cultural transmission builds a heritable body of adaptive knowledge that is held at a level of organization above that of the molecular and structural organization of living individuals, i.e., at a level of "social" organization."

## 5. Innovation as higher level of knowledge?

We can investigate, from this perspective, the links between structure constraints, individual interactions and the dynamic and emergent nature of innovation within the organisation as an autopoietic system.

Nousala and Hall (2008) described how new levels autopoietic organization can emerge from existing levels of complexity. This have involved the formation of third order autopoietic organizations such as new companies involving second order people working within the higher level supersystem of the economy (Nousala et al 2005, 2009, Hall et al. 2009), the emergence of knowledge-based communities within existing third order companies or other social structures (Nousala 2006; Nousala et al. 2005, Hall et al. 2010) and the emergence of 4th order industry clusters between component companies and the higher level supersystem of the economy (Hall 2006; Hall & Nousala 2007).

We must stress that any emergence of new knowledge is bound, as demonstrated, by structural coupling, system history and the structure of environment. This knowledge is referring only to the survival of the organisation, based on events that already happened and from which the entity was able to substract permanent and usefull knowledge for the survival.

Using this perspective we propose to introduce the concept of innovation as knowledge :

- ⊙ For new possibilities of evolution of the organisation, and
- ⊙ For new possible perturbation in environment and internal organisation (structure)

The main issue is, of course, the unlimited possibilities that involves processes in complex systems.

But, as proven in the evolution of computer algorithms (Google DeepMind vs Lee Sedol) it is now necessary to process ALL the possibilities, as it is sufficient to select a few scenarios.

Moreover, the more knowledge is embedded in the organisation, about the environment and internal structure, the number of possibilities is reduced (even if the reduction is from a high number of infinities to a lower number of infinities).

Drawing the parallel with survival knowledge we can describe innovation as evolution knowledge.

Innovation is still bound to environment structural limits (as it is part of the environment) but it is not bound to the structure of organisation.

Moreover, another difference is that, if the survival knowledge is a response to certain events in the past, for the innovation to

emerge, it needs, first, a specific process that is not naturally occurring and, second, to provide :

- ⊙ Knowledge about survival of the organisation in the risk of possible future new events from the environment (external future new survival risks), or

- ⊙ Knowledge about survival of the organisation in the risk of significant structure change (internal future changes)

- ⊙ Knowledge about possible internal changes that can make the organisation more efficient, using already existing processes or by developing new processes from the existing ones.

## Conclusions

As seems, from the difficulty of defining and explaining the concept of innovation, none of the current theories can easily integrate the concept, and, we believe that this is because the inability of the current theories to embody the necessity of a higher purpose of the social autopoietic organisation.

Based on the current theories, the only purpose of any entity is survival (or its economic equivalent, profit in form of money, for societal organisation). And for this purpose the science can describe, as we discussed, the necessary processes and framework to explain, partially, the necessary conditions for survival, but not evolution. The concept that „the more, the better“, that means that if the organisation is more „experienced “ (long history=more survival knowledge) and has more resources, the chances that it will survive are better is valid only from the „natural selection“ point of view. And natural selection process of evolution is valid for

entities that forms and compete in the same environment.

As we see from past (and all failed) experiments, in natural selection evolution if we take one species from its environment and move it into other environment (with the same structure) where individual survival is not threatened, the individuals will evolve based on the survival evolution processes even if this evolution is putting in danger the environment and the whole species (egoistic gene theory).

That means that if we consider innovation a necessary process from a survival point of view, we maximise the risk of environmental destruction and own (individual and species) destruction.

Innovation must be linked to evolution in a different path from the survival evolution and for this to happen there is a necessity for a different process, created by cognition at a higher level, and, most important, it has to have a purpose that is fundamentally different from the survival of the organisation.

We believe that is from its two elements – specific cognition process and purpose – that the framework for innovation in an organisation must be created.

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## From Policies To Reduce Youth Unemployment To Entrepreneurship Programs?

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**Abstract:** Romania has been looking for answers for many years on reducing youth unemployment. The methods by which public actors have proposed to implement policies in this area have not been successful. An overcoming of them and a decisive change of them is useful today and it is also required for the economic and social future of this country.

Entrepreneurship in Romania could be one of the answers sought by public actors at the national level, but it must be fully aware of the important elements of this, the necessary resources and a real analysis of them, but first of all, an analysis of the target group directly involved. How could Romania do these things? By imposing and observing conditions at national level, but also through a visible transition on the development of various programs of entrepreneurship in Romania.

**Key words:** entrepreneurship, youth unemployment, public policies

### **1. Public policies to reduce youth unemployment or entrepreneurial programs?**

Unemployment among young people in Romania is a matter of several years on the institutional agenda. To tackle this problem and have taken several measures, we have implemented several programs, but, however, the problem is still topical.

National institutions addressed the private sector as well as the direct target young people to solve it. The private sector has been stimulated through several policies to increase employability among youth through various means: reduction or exemption from taxes, providing minimum wage for every young employee, university graduate without experience. However, public policies in the field have not reached their full target, even though youth unemployment in Romania has suffered slight declines, but it has not reached the desired percentage.

In the third quarter of this year, unemployment among young people reached a maximum of 24.9%, in the first quarter being 20.4%, and the second by 22.2, and now it is 21.4%. The unemployment rate among young people in Romania is now higher than last year when it was 20.3%.

So far, national institutions - focused on increasing the employability of young people in the private sector by providing facilities on the private sector, but not through its development and increasing employability.

Public policies at national level to increase employability of young people have considered and envisaged providing private sector facilities without taking into account the employability of this sector, the imposed bureaucracy, the development of productivity in this field, and the need for employment in this area.

Public policies aimed at reducing youth unemployment and increasing employability in the private sector should be based on a clear analysis of the following elements: the real reasons behind unemployment among their motivation and motivating young people to become engaged immediately after the studies, the need to employ private companies, the analysis of productivity and its estimation for the coming years, the legislation that private companies and the whole bureaucratic process must respect, the training of young people and the fields studied by them.

In a previous research, which was based on the semistructured interviews conducted between October 2015 and January 2017, in the first, second and third year of college with 170 students, aged 19-24, both male and female, from rural and urban areas and from all regions of the country. Students are enrolled in the Faculty of Administration and Business, Public Administration and Business Administration Specializations, Law Faculty, Faculty of Management- ID and day, has been shown that at the base of youth unemployment there are other causes, the social ones and not just the economic situation at national level. These include: motivation and stimulation of the individual to integrate into the labor market, the formal education received and the behavior received as a model in the formal studies followed, personal and professional development formed by direct involvement, moral values, personal skills and competences, wishes and the aspirations of the individual, the behavior received as a model within the family within the school; family education and youth formation through other external factors without conscious awareness.

In the same research, based on participant observation framework applied to over 400 young students, between October 2015-January 2017, in the years I, II and III college and first year master with targeted youth aged 19 to 26 years, both male and female, from all regions enrolled in the following fields of study: business administration and Public administration, Law, Management, Marketing and human resources., have concluded the following:

- Over 60% of the target young people do not want to work nor are they looking for a job,

- 60% of young people have mistakenly and unknowingly chosen faculty or master programs,

- Approximately 60% of students do not benefit from a personal and professional development appropriate to their age, even having a behavior inappropriate of age,

- Within the same percentage, there was an underdevelopment of personal and professional skills and competences such as: responsibility, communication skills, writing in academic and professional language, creativity, flexibility and adaptability to new, objective thinking, critical thinking, language underdeveloped, non-academic in 55% of cases.

- Poor behavior learned from the high school studies,

- behaviors, wrong copied or misunderstood within the family, and a great influence of parents and family members on their decisions,

- a low motivation for personal and professional development in more than 60% of cases proven and validated by sending information about certain useful activities such as: courses, trainings, free seminars; paid

internships; free national and international projects, or a spending charge of up to 50 euros; activities in various fields, involving both professional and personal development and even free travel activities. Within them, only 20% participated - they already work in advanced fields, participating in other volunteer activities; internships or other national and international projects, and 90% of them have scholarships received within the faculty.

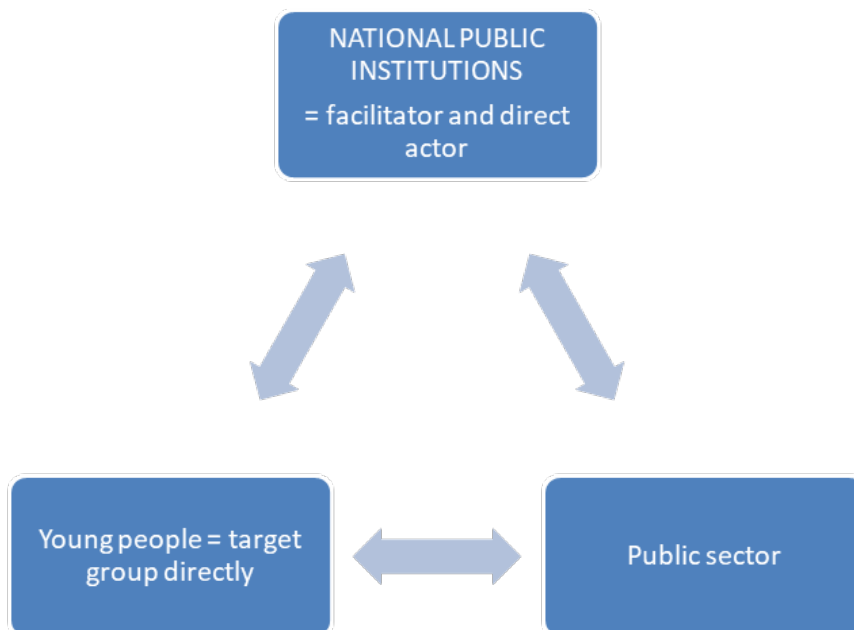
- There was an active involvement of more than 80% of the target young people and an increased interest among them in practical seminar activities: role play, team competitions, individual and team projects, brainstorming, focus group, etc

The same conclusions were also made on the basis of completed questionnaires in that period, in over 500 students and fresh graduates.

## **2. Key elements of public policies on youth unemployment and entrepreneurship programs**

It is necessary that the implemented public policies and future policies include an objective, real and profound analysis of the following actors directly involved in this issue: young unemployed - as a direct target group, the private sector - as a potential remedy for the unemployment problem and potential entrepreneur and public institutions at national level - as a facilitator between young people and the private sector and as the main actor directly involved in solving this problem at national level.

Fig. 1-Elements of public policy analysis on youth unemployment reduction



Source: Author's own processing

From public policies on reducing youth unemployment, national public institutions have made a useful transition to implementing programs on entrepreneurship development in Romania. These could be a more effective solution to increase employability among young people but also a durable one. However, in programs of this kind are found several weaknesses that may affect drastically achieve the objectives, development and duration: reducing visibility nationwide target group small (women, young people with a certain age, young people from certain backgrounds, SMEs), insufficient budget allocated bureaucratic process very complex, lengthy and long-winded unreadiness public institutions locally to provide counseling and accurate information of those interested, the existence of several institutions with competences in the field that can confuse and

lower interest in applying to such a program.

Programs on entrepreneurship development in Romania can be a real solution and a successful transition from public policies on reducing youth unemployment if they will be implemented with the observance of some essential conditions for their development.

And within them should be taken into account in real mode, the following: the group's target interest young people to become entrepreneurs, practical training them on business, actors involved in their implementation, the need to increase productivity nationwide, areas of interest, existing budget, relations between target group-institutions and businesses, curricular area of educational institutions high school and higher in the field.

1. The target group- we recommend a detailed analysis of its specificity, the areas

of interest, the motivation of the target group to get involved in the programs implemented for the development of the entrepreneurship at the national level, its real needs and the potential of the target group,.

2. Young people's interest in becoming an entrepreneur - for young entrepreneurship programs to be successful, there must also be a visible implication from them and a direct participation of young people throughout the process,

3. Their practical training - on the training of young people will depend the success of the implemented programs and their success in this field,

4. The need to increase productivity at a national level - this element will dictate the need to develop such programs and justify their existence

5. areas of interest they will dictate the areas of entrepreneurship development

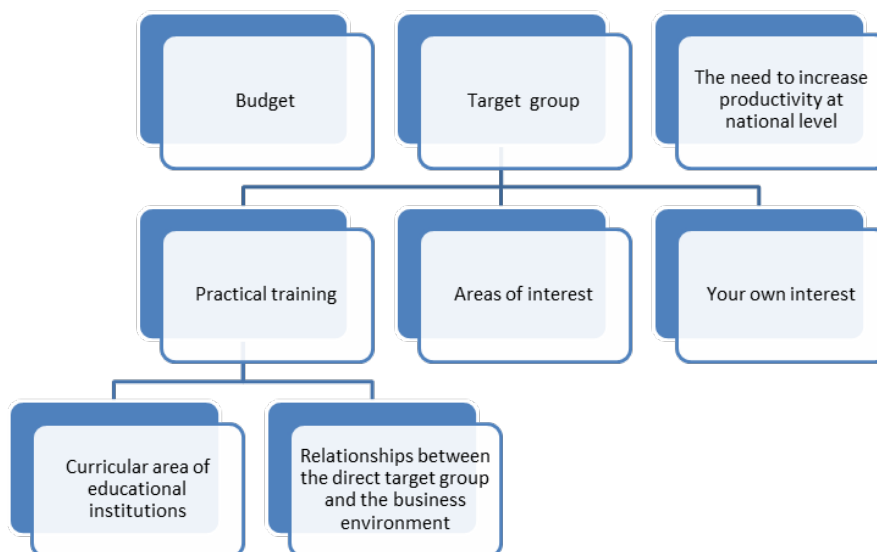
programs,

6. the existing budget- it will make up the financial resources involved in entrepreneurship programs\

7. The relationships between the direct target group and the business environment - the relations between the two directly involved actors - the public institutions and indirectly involved - the private environment will be an important starting point in the development of the entrepreneurial programs implemented and it is recommended that it whether objective, sincere, professional and both actors have shared interests

8. The curricular area of higher education institutions in the field - the fields studied within the educational institutions can be reflected in the future business areas developed at national level by young people.

Fig. 2. Elements of the analysis of entrepreneurship development programs



Source: Author's own processing

## Conclusions

Moving from public policies on reducing unemployment in Romania to youth entrepreneurship programs is a useful and important one for Romania at present. But this shift should be done in a conscious, assumed, objective and mindful way and to take account of all those directly and indirectly involved in this process, by legislation, but also the elements that make up the private sector in Romania.

No entrepreneurship program for young people will be successful, regardless of the financial and material resources implemented if it does not represent a real necessity, if Romania is not ready to increase its

productivity at national level, if the bureaucratic and legislative system will not diminish in terms of the conditions imposed on future entrepreneurship at national level. Also, these programs should also take into account a real analysis of the direct target group, which puts more emphasis on their own desires, needs, expectations, knowledge and areas of interest, not just economic ones at national level.

Higher education institutions also play an important role in this transition to the implementation of entrepreneurship programs: by providing well-prepared human resources with a practical base, knowledge in the field, but also motivated, interested and willing to affirm in the environment business.

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## The actors involved in the communication process on Entrepreneurship Programs

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**Abstract:** *The development of entrepreneurship programs in Romania is a clear need for the current problems of the Romanian education and labor market at the national level. However, no matter how performing and successful the programs implemented in this field are, inefficient communication at the institutional level and their poor promotion will lead to their visible failure and a false interplay. Programs and public policies on reducing unemployment through the development of entrepreneurship at national level are a necessity for Romania. But these can not be implemented at the desired level without clear rules on the communication process between implementing institutions and citizens, between collaborating institutions and other actors involved in the promotion process.*

**Keywords:** Entrepreneurship, Public Communication, Entrepreneurship Programs

### 1.The Communication Process on Entrepreneurship Development Programs in Romania

The public communication process is a very complex one, involving its own rules and principles of operation. Public communication fits in one of the forms of translating public information and data among citizens and among target groups directly targeted.

Public Communication is not just a form of communication applied by public institutions to provide certain information, but is a stand-alone process underlying success or failure of a public policy program or a project implemented by a public institution in the interest of the target group.

Paul Watzlawick shows that: "Any communication is based on two important aspects: content and relationship, the relationship is one that includes content, so that it is a metacommunication." This is also true in public communication - this type of communication does not involve the transmission of information but also a direct relationship

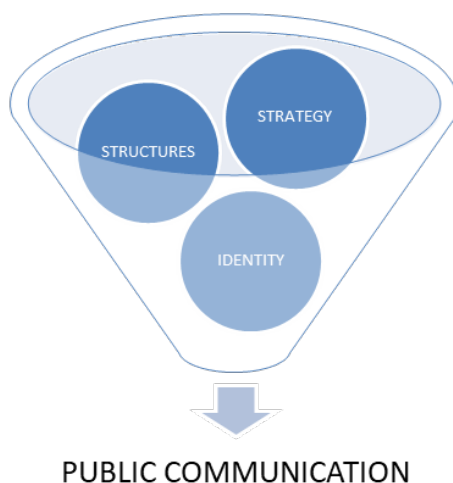
between its actors and actors and receptors, especially.

Also Henri Lefebvre's claimed that involvement in social life is based on a form of communication and information, the information being just the last step of the evolution of communication. In any form of communication the relationship will influence the content, the purpose of building relationships is not just sending a message.

As a special form of communication, public communication was defined by Pierre Zemor as " formal communication, which tends to exchange and share information of the public utility and to maintain the social bond, whose responsibility lies with the public institutions." Its ultimate goal it is the general interest and the application of the rules , making public decisions by sending messages through public institutions..The public communication is based on the following elements

1. strategy (mission, value added),
2. structures,
3. Identity.

Figure 1: Communication's elements



Source: Author's own processing

Achieving the purpose and features of a Program, project, strategy, or public policy implemented by a public institution depends on the communication strategy used by that institution to ensure the transparency and visibility of that policy or program. Thus, any action taken by a general public institution that wants to reach out to citizens or the knowledge of a target group depends to a large extent on how it is transmitted and how it becomes visible.

In the programs underlying the promotion and development of entrepreneurship in Romania, the way in which they become "known" by the direct target group is decisive for their success. Also, any public policy aimed at reducing unemployment by developing entrepreneurship programs and providing facilities for young entrepreneurs depends largely on: how these policies and programs are transposed to the target group directly, the objectivity with which they are made known to the future entrepreneurs, how they get to be translated into practice, but also how those who are going to implement them will bring them to the attention of those interested.

A public policy or a program for development of entrepreneurship in Romania who could achieve its objectives to a large extent can be stagnant due to lack of effective communication by the public institution involved in the development and implementation of this or other actors involved in communication. Lack of visibility, objectivity and lack of concern with the transmission of information to a large scale on this kind of programs or policies may adversely affect that policy or program results translating into negative on two plans: the target group and that of public institutions directly involved in their implementation.

But these two levels will negatively influence several other issues at national level: financial resources involved in their implementation, future programs and policies in the field, and future policies or programs of public institutions on related issues: unemployment, developing a system of education inconsistent with labor market requirements, stagnation of performance and entrepreneurial development at national level, declining production at national level.

Which is why we have identified the following essential conditions in communication process on programs on entrepreneurship development in Romania:

- Visibility - is envisaged that program to ensure visibility as widely, especially among its target group,

- The relationship between collaborative institutions - it is necessary for the public institutions that collaborate in order to implement such a program to have common interests, to aim at accomplishing common goals and objectives, and the relations between the human resources within these institutions involved in the programs to be objective, professional and have no own interest in the programs concerned,

- Relations between institutions and citizens - in this case, it is imperative that the institutions respect the citizen's interest, the transparency of the public utility information, to grant the citizens rights, and the citizens to observe the conditions imposed by the legislation in the field and the rules of the public institutions,

- Transparency - a high degree of transparency will increase the number of beneficiaries of entrepreneurship development programs, which will directly lead to higher performance levels

- Objectivity-a high degree of objectivity will promote: quality, seriousness and performance among the direct beneficiaries of these programs.

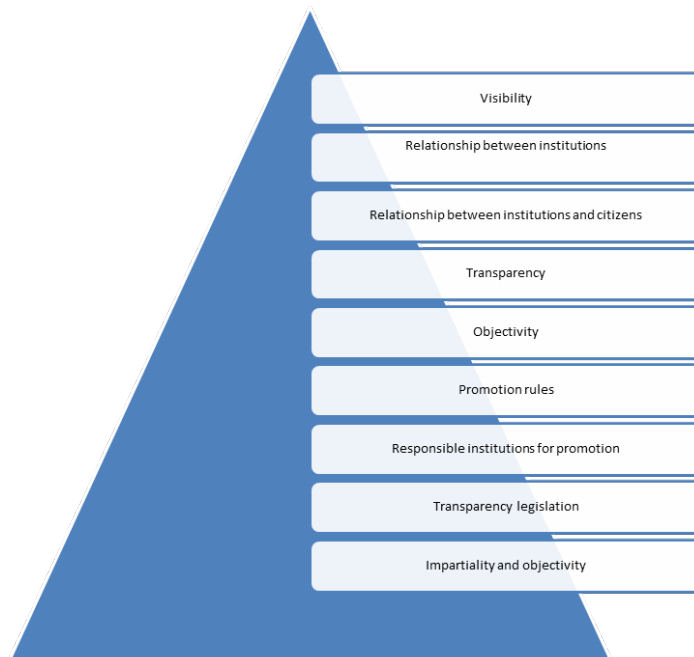
- The clear existence of the attributions for the promotion and advertising of these - requires strict rules on the promotion and advertising of entrepreneurship programs, so as to avoid negative, false advertising, or the influence of the potential beneficiaries by the media and to prevent by any means enrollment and participation within them.

- The existence of national and local institutions to promote these programs - these institutions would facilitate the process of selecting those who will benefit from these programs, the process of checking and preparing necessary dossiers, but would also ensure other important aspects of the programs implemented for the development Entrepreneurship in Romania: objectivity, transparency, ensuring equal conditions

- Legislation on NGOs - clear legislation among NGOs that promotes entrepreneurship in Romania and carries out such projects - would lead to their full harmonization at national level. This should include: the conditions for ensuring the visibility of these projects, the necessary participation conditions, the budget involved, the conditions of appeal, counseling and information in the field,

- Impartiality and objectivity among the actors involved in the communication process - this latter aspect specifically targets the media. Media prohibition in some way influences the direct beneficiaries of these programs, and to transmit erroneous, false information, supposed only and not verified among public institutions or among those who run these programs.

Figure 2: The conditions of the communication process regarding the programs for the development of Entrepreneurship in Romania



Source: Author's own processing

Thus, according to the elements identified above, we have identified the following actors involved in the communication process regarding the entrepreneurial programs in Romania:

- Public institutions at national level - whether the programs target beneficiaries at national level and not only at the local level - with a role in ensuring respect for the legacy in the field

- Public institution -with role in implementing public enforcement are necessary to participate in these programs by direct beneficiaries and the role of information and advice in the field,

- The NGOs with attributions in the field - at the local or county level - are involved in ensuring the promotion, transparency and visibility of these programs, as well as with information and counseling in the field,

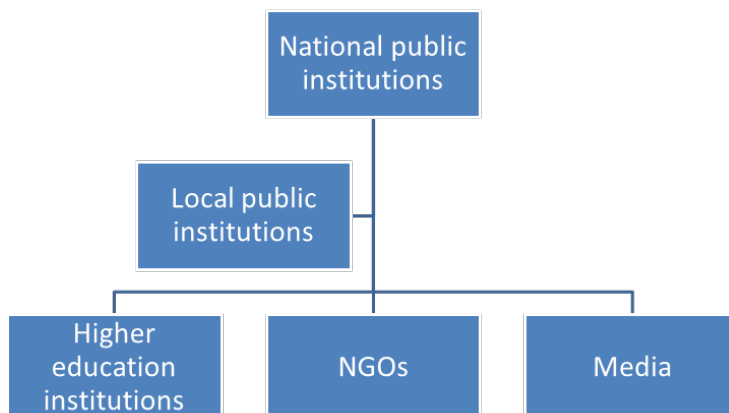
- Media - with a role in the objective transmission of real information and ensuring the promotion of these programs at national, county, local level, as the case may be. It is forbidden to influence the beneficiaries of these media programs.

- Educational institutions - given that the programs for the development and

promotion of entrepreneurship in Romania aim, mostly young people, higher education institutions can play an important role in promoting these programs, informing and counseling the students in the field, but also preparing them - according to the study specializations - for developing a business or participating in such a program.

Also, the relationship between the actors involved in the communication process regarding the entrepreneurial programs in Romania must be one of collaboration, not of superiority. Even if public institutions at national and local level will be those who “dictate” the rules, requirements and conditions in the field and establish the legislation and regulations in the field, the other institutions will be direct collaborators on the communication process and not “actors” subordinated to them. Only the order in which the information will be transmitted will be respected - from national public institutions to local ones - then to higher education institutions, NGOs and the media. The information transmission cycle will ensure compliance with the legislation, the validity of the information and credibility among the beneficiaries.

Figure 3: Actors involved in the communication process



Source: Author's own processing

## 2. Conclusions

The success of a public policy or program implemented at national or local level does not depend only on the way of implementation, the financial and material resources involved, the human resources performance or the correctness of the implementation methods but also on the measure and the way it is made known to direct beneficiaries. The process of transmitting information among them will be the one that will dictate the success of that policy or program. Incorrect information by recipients or false advertising of the program will give rise to false results, and the purpose and objectives initially set will only be met in part. This will be reflected negatively in future policies and programs implemented in the field.

False transmission of information among beneficiaries or failure to comply with the rules on communication process and the relationship between communication actors will lead to a failure among implemented programs. And this will lead to false future programs and policies implemented. Believing that the policy or program was not successful and that it was not correctly implemented or formulated, other measures will be taken to develop and promote entrepreneurship in Romania, even if not the policy or the program itself was wrong but how it was made known among its beneficiaries.

Of course, the same rules on the communication process, relations between actors involved in the communication process can be respected in other policies or programs and in other public domains.

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## Entrepreneur and Entrepreneurial Spirit

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**Abstract:** The entrepreneur is a key character of the economy with a competitive market that translates into business ideas by taking advantage of opportunities offered by the market. The paper sets out representative approaches in relation to the entrepreneur, developed over time by reputed economics and management specialists. The best known and quoted classifications of entrepreneurs set out in the specialized literature, namely the one elaborated by the American Professor John B. Miner and the STRATOS typology, are presented and analyzed in a comparative vision. The strengths and vulnerabilities of each type of entrepreneur in the two types presented are systematically emphasized. Also, the main variables defining entrepreneurial spirit and the most important forces that determine it are highlighted and explained in the paper.

**Keywords:** entrepreneur, business idea, business opportunity, entrepreneurial spirit.

**JEL Classification:** L26, M10, M21, O10.



## 1. Introduction

The contemporary world is in constant change economically, socially, technologically, managerially, etc., and the entrepreneurs, through their manifested entrepreneurial spirit, can successfully cope with these changes.

Moreover, the entrepreneurs are the ones who initiate, propagate, coordinate and evaluate the processes of change in the organizations they create and lead.

The entrepreneurial spirit is the most important aspect of economic development in the last period of business history. The organizations created and developed by entrepreneurs have led to the emergence of new products and services, crossed the frontiers of old technologies, created jobs and opened new markets [1].

The growing popularity of entrepreneurship, propelled by the status of remarkable entrepreneurs such as Steve Jobs and Richard Branson, drew the attention of people everywhere, especially young people.

Becoming an entrepreneur is the best way to thrive in the future world economy. Preparing for survival through your own intelligence is no longer an alternative lifestyle, but an absolute necessity in this uncertain world, dominated by downsizing [5].

At present, there is a global impetus to research and revitalize the entrepreneurial spirit in people, companies and countries. Entrepreneurship is the best model ever invented to generate growth and prosperity. Business people, political leaders, economists, academics and journalists unanimously support this model.

Supporting entrepreneurship and the strengthening of the small and medium enterprises sector is on the agenda of priorities

of governments in the main economic areas of the world [8].

## 2. Approaches of the entrepreneur

In specialized literature there are a significant number of studies and articles devoted to the entrepreneur. We will present below some approaches of the entrepreneur concept, outlined in the course of time by reputed specialists in economics and management.

The concept of entrepreneur was introduced by Richard Cantillon in his work *Essai sur la nature de commerce en general*, published in 1755. Cantillon considers that the activity of an entrepreneur lies in procuring and combining the factors of production in order to obtain products intended for sale on the market.

Jean-Baptiste Say, the first professor of political economy in Europe, found that an entrepreneur must possess "...judgment, perseverance and an understanding of the world and business. He has to estimate with tolerable precision the importance of products, the likely level of demand and the factors of production required at a certain time".

One of the most important representatives of the Austrian School, Carl Menger, highlighted the essential role of the entrepreneur in the efficient allocation of resources, given that the environment of companies is marked by a permanent imbalance [9].

Schumpeter [13] marks an important moment in the evolution of the entrepreneur concept. In his opinion, the entrepreneur is a person who brings novelty elements (a new product, a new production process, etc.). Webster's Third New International Dictionary defines the entrepreneur as "one who holds, organizes, runs and assumes the

risks of a business”.

In the work entitled *Penguin Economics Dictionary* [12], it is estimated that the roles of the entrepreneur consist of procuring the capital necessary for the company, organizing production by acquiring and combining the factors of production, and also assuming the risk for the activities performed.

The renowned specialist Carland distinguishes between the owner of a company and an entrepreneur [2]. The owner creates and runs an undertaking for personal interests, while the entrepreneur influences and coordinates the activity of an organization, having as central objective obtaining profit.

The American Professor Peter Drucker considers that since the 80s we have been witnessing an entrepreneurial revolution, reflected in the shift from managerial economy to entrepreneurial economy. In his view, the entrepreneur is the person who permanently looks for changes, his actions having a predominantly practical nature [4].

An interesting approach is the one of the Canadian researcher Jean Marie Toulouse, focused on three axes of human activity: value system, degree of commitment and intensity of actions [14]. According to this approach, the entrepreneur pays special attention to the autonomy and freedom of decision, assumes the risks involved by his activity and has a strong inclination towards action, showing creativity in solving the problems that he is faced with.

Professor Eugen Burduş finds that the entrepreneur is a person who creates new businesses, assuming risks in achieving the objectives, by identifying opportunities [1].

Marius Ghenea, a successful Romanian entrepreneur and professor of “Entrepreneurship, Innovation and New

Business Ventures” at Maastricht School of Management, proposes a simple but suggestive definition of the entrepreneur. According to this definition, the entrepreneur is the person who looks at a problem and sees it as an opportunity, and then acts on it. All people see problems in their daily lives, some of them identify solutions to these problems, but very few go further and act to implement solutions. This approach highlights the fact that an entrepreneur is a person who has ideas and acts based on his ideas to turn them into business projects [6].

In our opinion, the entrepreneur is one of the main actors of an economic system with competitive market as he creates new organizations and develops existing organizations. The starting point of the entrepreneurial action is the business idea, which the entrepreneur puts into practice by detecting and capitalizing an opportunity existing on the market, making use of a set of resources [7].

Therefore, we assume that the market, i.e. the business environment, always offers opportunities, but the entrepreneur has to carry out the “business idea - business opportunity” coupling in order to initiate and develop an entrepreneurial process.

### 3. Types of entrepreneurs

The best known classifications of entrepreneurs are those elaborated by John B. Miner and the STRATOS typology.

In the vision of John B. Miner, professor, writer, speaker and consultant specializing in entrepreneurship and human resource management, there are four types of entrepreneurs, i.e. [10]:

► personal achiever entrepreneur;

- super-seller entrepreneur;
- manager entrepreneur;
- expert entrepreneur.

The personal achiever entrepreneur spends a lot of time on the business, believes strongly in his own person and in what he/she does, has a vision of the business, emphasizes flexibility in a less structured and formalized organization, has rapid responses to environmental changes and a great ability to solve problems and does well in times of crisis

The super-seller entrepreneur is permanently preoccupied to sell, appealing to other people to conduct the company's current affairs and focusing on human relationships and teamwork.

The manager entrepreneur possesses managerial skills and abilities, spends time and resources to persuade potential customers to buy his company's products, encourages his employees to build a career within the firm and puts special emphasis on building an organizational culture.

The expert entrepreneur has solid knowledge in a field of activity, has an innovative spirit and attracts innovative people, devotes his energy to getting support to implement new ideas and crystallizes a vision of the business.

Analyzing the classification developed by John B. Miner, we can draw some conclusions. Thus, the high-performance entrepreneur is remarkable in having a vision of the business, exhibiting rapid reactions to environmental developments and doing well in times of crisis. The vulnerable point might be linked to the excessive time spent on the business, which may, in time, affect his personal life.

The super-seller entrepreneur lays emphasis on human relationships and cultivates team spirit within the organization, but his exclusive preoccupation with sales and the lower degree of involvement by appealing to other people can provide him with a rather short-term success.

As regards the manager entrepreneur, the strengths are related to the complex of managerial qualities, to encouraging his own employees to develop a career in the firm and to building an organizational culture. Also, this entrepreneur is the only one who spends time and resources to persuade potential customers to buy his products.

The expert entrepreneur is well trained in a field of activity and a vision of the business, and his actions are centered on the implementation of new ideas as a projection of his innovative spirit.

The second classification of entrepreneurs was carried out by a group of researchers within the STRATOS (Strategic Orientations of Small European Business) project, which took place in 8 countries [11]. The STRATOS typology, based on two categories of attitudes and behaviors – creative-dynamic and managerial-administrative – differentiates four types of entrepreneurs:

- type-A entrepreneur (universal or complete)
- type-R entrepreneur (classical or run-of-the-mill)
- type-B entrepreneur (dynamic or pioneer);
- type-O entrepreneur (organizer).

The universal or complete entrepreneur is a high achiever, well prepared from an economic and technical point of view, possesses

a high capacity to adapt to the environment and the problems that the business raises, resorts to the strategic option of diversification and has a choleric temperament.

The dynamic or pioneer entrepreneur has a creative-innovative behavior, is open to change and risk acceptance, strategic orientation is aimed at the exploration of the market, the expansion thereof and the development of the product, and has a sanguine temperament.

The organizer entrepreneur is oriented especially towards the administrative aspects of the activity, has an organizational spirit, is tenacious and orderly and exhibits a melancholic temperament. From a strategic point of view, this type of entrepreneur attaches equal importance to options for diversification, modernization of existing products and penetration of new markets.

The classical or run-of-the-mill entrepreneur is cautious, less willing to take risks, orientates himself towards the diversification of production and the obtainment of modest economic performance, does not generate strong firms and has a phlegmatic temperament.

Compared to Professor John B. Miner's classification, the STRATOS typology considers two interesting variables, namely strategic orientation and temperament. We note the training and the ability to adapt to the environment of the universal or complete entrepreneur, the creative-innovative behavior and openness to change and risk acceptance in the case of the dynamic entrepreneur, as well as the equilibrium manifested by the organizer entrepreneur with regard to the strategic orientation. The neuralgic points of the first three types of entrepreneurs could be their temperament.

The run-of-the-mill entrepreneur has an atypical profile if we take into account that he is prudent and does not take risks, a fact that is essential in an entrepreneurial approach. The modest achievements of this type of entrepreneur are the natural consequence of the manifested behavior and phlegmatic temperament.

#### 4. The entrepreneurial spirit

As we have shown in the previous section of the paper, the entrepreneur is a person who translates into practice a business idea by detecting and capitalizing on an existing market opportunity.

The entrepreneurial spirit involves the identification of an opportunity, the decision to start the business, and, very importantly, the action itself. In the opinion of some authors, the entrepreneurial spirit is a function of two variables, namely the psycho-sociological variable and the economic variable [15].

In our vision, the entrepreneurial spirit is defined by three important variables, i.e. (see Figure 1):

- the contextual variable;
- the psycho-sociological variable;
- the economic variable.

The contextual variable is given by the fact that the entrepreneurial spirit is strengthened by a certain economic, social, political, legislative, etc. context which favors the emergence of opportunities that the potential entrepreneur can identify and then capitalize.

The psycho-sociological variable is defined by [3]:

- personality traits (predisposition for

action, risk taking, independence, etc.);

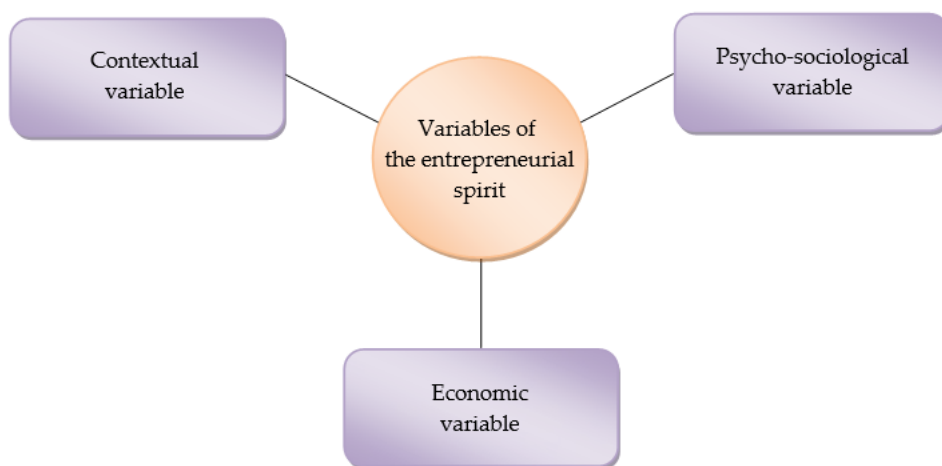
- skills and qualities (ability to decide, courage to act, perseverance, realism, vision, relational availability, creativity, identification with people already successful as entrepreneurs, etc.).

The economic variable refers to the entrepreneur's ability to set goals, identify and allocate resources, outline different strategic options to achieve the projected goals.

There are several forces that determine the entrepreneurial spirit, among which we mention [16]:

- passion (passion leads to the appetite for risk);
- optimism (the power of positive thinking and the guidance of actions according to the motto "every challenge is an opportunity");
- adaptability (the capacity to adapt is vital for the growth of a business);
- leadership (vision, charisma, a well-developed sense of morality, enthusiasm, etc.)
- ambition (generates the entrepreneur's desire to succeed).

Figure 1. Variables of the entrepreneurial spirit



Source: Author's own processing

## 5. Conclusions

The entrepreneurial spirit is the best model ever invented to generate economic growth and prosperity. Business people, political leaders, economists, academics and journalists unanimously support this model.

The entrepreneur is one of the main actors of an economic system with competitive market as he creates new organizations and develops existing organizations.

The business environment always offers opportunities, but the entrepreneur has to carry out the "business idea - business opportunity" coupling in order to initiate and develop an entrepreneurial process.

Analyzing the two typologies presented in the paper, we synthesize some essential characteristics of entrepreneurs, such as business vision, training in a field of activity, adaptability to contextual evolutions, creative-innovative potential, managerial skills

and preoccupation for building an organizational culture.

The entrepreneurial spirit involves the identification of an opportunity, the decision to start the business, and, very importantly,

the action itself. In our vision, the entrepreneurial spirit is defined by three important variables – contextual, psycho-sociological and economic – among which there are multiple interferences.

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## Entrepreneurial Skills. Experience, a New Economic Offer in Business

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**Abstract:** *The dynamics of the business environment has led to a growing competition. Everyone dreams of their own business. The question is: how do I create a business and how do I develop it? Do I have entrepreneurial skills? Given the decline in purchasing power, one of the most sensitive aspects of the economic system is also emphasized: the price. The difference between companies lies in the service provided for consumers as an additional element for purchasing the product. A new type of economic offer appears: the experience, which represents the quality of the time that the consumer spends with that company. What you sell is the very experience. Experiences are a new source of value and are events that involve people at a personal level. The new offer of experiences occurs whenever a company intentionally uses its services as a stage and its goods as stage props in order to involve a client.*

**Keywords:** entrepreneur, innovation, entrepreneurship, entrepreneurial skills.

**JEL Classification:** L25, M21, O16



## 1. Introduction

In the market economy system, the enterprise is a complex and ever changing reality, both in the national economy and in the world economy and globalization. The enterprise as a link of the economic and social system has a specific functionality in the context of achieving the progress of society.

The importance of studying the enterprise as a legal entity also stems from the words of Virgil Madgearu who argued that "the science of enterprises must be the leading edge of the education program because all the branches of business science converge to the same point: the research of trade, industry, banks and transport enterprises". [3]

Treating entrepreneurial issues requires approaches related to the economic

growth of nations in the process of sustainable development.

Entrepreneurship is the process of creating a new business that brings many benefits to the society and enterprisers, but it definitely does not fit all persons.

According to Peter Drucker (1985), entrepreneurship is the creation of a new organization, without taking into account the organization's ability to support itself. [2]

To be entrepreneurial, an enterprise has to have special characteristics over and above being new and small. What is "entrepreneurial" in this business is not that it is new and still small (though growing rapidly). It is the realization that castings of this kind are distinct and separate; that demand for them has grown so big as to create a "market niche", and that technology, especially computer technology, now makes possible the conversion of an art into a scientific process.. They create something new, something different; they change or transmute values. An

enterprise also does not need to be small and new to be an entrepreneur. [2]

The entrepreneur is the person willing to take risks and devote effort, skill, courage and time to starting their own business. He sees opportunities where others fail to notice them.

The entrepreneur knows best that in a market economy, one who has a good idea and capitalizes it properly wins, and whoever has a bad idea can lose, this being a knowledge-based process. [4]

Surprisingly, not only the intellectual education is the mainstay for success, but also the emotional education. Not the most intelligent people become rich, but the most determined, those who know to have great dreams and are able to create and at the same time to follow slow, but sure steps to accomplish them.

## 2. An entrepreneur's skills

The entrepreneur is a man of initiative, skill and courage who invests in his business money, energy, health, time, who has a precise destination, aware of the purpose he wants to achieve. He is the one who manages the resources needed to operate a business based on innovation.

There are several reasons why a person might decide to enter the entrepreneurial process. These are:

a) Independence, because the entrepreneur is his own employer, chooses his customers, suppliers and the products or services that he will offer.

b) Social status, because a good entrepreneur will enjoy other persons' esteem and recognition of his success.

c) Personal satisfaction; because the

entrepreneur plans, organizes and puts into practice a risky activity that inspires him and offers high satisfaction.

It is not easy raising an idea from scratch and turning it into a business, especially into a successful one.

A good entrepreneur has the following personality features:

- Full commitment: energy, much work, courage, determination, initiative spirit, perseverance, consistency, discipline and focus on the achievement of the proposed objects.

- Vision of the objectives: the successful entrepreneur has a vision and can set some goals that he undertakes to fulfill.

- Assuming risks. A good entrepreneur can take the risk when it is necessary, but he also knows how to evaluate both the opportunities and the threats of a difficult situation.

- Resistance to difficulties and uncertainty. An entrepreneur has to deal with obstacles and daily difficulties, and this is why it is necessary for him to be able to deal with disappointments too. He is also a fine analyst of problems.

- Creativity: the entrepreneur has the wisdom, the intelligence to act on specialized market segments, or to meet consumer needs that have not been covered by competition, through new products and services. He has a remarkable observational and organizational spirit.

- Attitude towards colleagues and/or subordinates – the entrepreneur has to gain the trust and respect of his subordinates, imprints firmness and integrity in actions, showing flexibility and adaptability to his collaborators' behavior.

The successful entrepreneur must be able to recognize opportunities, promote

innovation, and take the risk of running a business.

Being an entrepreneur and conducting entrepreneurial activities involves a series of satisfactions and dissatisfactions: [1]

- The possibility of unlimited profit – if successful, the entrepreneur can get a profit that would cover the borrowed capital, his talent and his own entrepreneurial and managerial capacity.

- Work safety – the entrepreneur has the advantage that he can work as long as he is able to work, without having to retire.

- Employing family members – if the business has good results, the entrepreneur can run the business with family members, thus existing continuity and a greater confidence in doing business.

- Independence or autonomy – the entrepreneur is the one who makes decisions and gives things a certain direction, set by himself.

- Independent use of accumulated capital – the entrepreneur can place his capital in his own business.

- Applying one's own knowledge and skills by finding a job that is appropriate to one's own knowledge can be a challenge due to the excess of workforce in that field. In this regard, an entrepreneur has the chance to start a business where his skills will be valued, and his knowledge will be an advantage.

- Influence and power – a business gives power to any entrepreneur, because he is the one who makes the decisions, who influences the course of action, and all these aspects create a psychological satisfaction for him.

Among the dissatisfactions that may arise in the course of entrepreneurial activity there are:

⊙ The burden of full responsibility. In the event of success or failure, the entrepreneur is solely responsible. The decisions made affect everyone: entrepreneurs, clients, employees. That is why many people prefer to work for others, thus limiting their responsibility to the work tasks in their working time.

⊙ Jeopardizing their career. In case of failure, one of the big problems encountered by some people who want to become entrepreneurs is that they will no longer be able to return to their old work place, especially if they had a well-paid job.

⊙ The risk of losing the invested capital. In case of unsuccessful business, the loss of important amounts of money may be a problem.

⊙ Calling on experts. As an entrepreneur cannot be a connoisseur in all fields of activity, he will have to call on experts, and this may cause damage to their spirit of interdependence.

⊙ Highly loaded work schedule.

⊙ Impairment of health.

⊙ Possible deterioration of family relationships.

Developed in the early 1980s, the McKinsey 7S Model, proposed by Thomas J. Peters and Robert H. Waterman Jr. and published in the paper *In Search for Excellence*, brings to attention the factors that a good entrepreneur has to take into account. Success does not only depend on the quality of strategic options, but it is the result of the interaction between 7 independent strategic variables: [5]

o Structure of the organization (Structure);

o Strategy for segmentation and assignment of specific tasks (Strategy)

o Organization staff (Staff)

o Leadership style (Style)

o Subsystems of the organization and the functions performed by them (Systems)

o Organizational culture or values shared by the members of the organization (Shared Values)

o Skills and efficiency sources of the organization (Skills).

The McKinsey 7S model features both “hard” and “soft” elements.

The “hard” elements – Strategy, Structure and Systems – are easier to identify and the entrepreneur can influence them directly: they are reporting strategies; organizational charts and reporting lines; formal processes and IT systems.

The “soft” elements – Shared Values, Staff, Style, Skills – can be more difficult to describe, as they are less tangible and more influenced by culture. The deterioration of staff resistance to change and the change of culture are difficult to manage, especially if such change modifies the structure of power in the organization and its inherent values. However, the soft elements are just as important as the hard elements; they are the basis for the uniqueness of the organization.

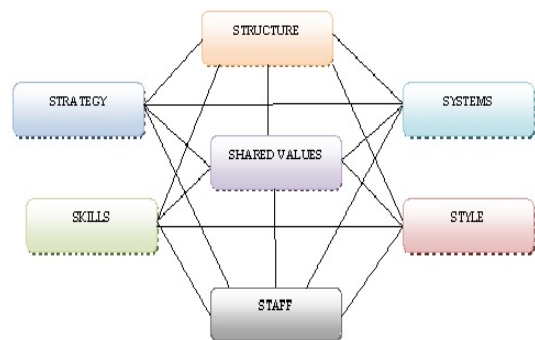


Figure 1. McKinsey 7S Model [5]

The way in which the model is presented in Figure 1 shows the interdependence of the elements and indicates how a change affects all others.

Efficiency, effectiveness and stimulating environment – they all lead to Excellence.

Some of the secrets of excellence in entrepreneurial activity are:

- Construction of a simple and adaptive structure in the business;
- Ability to listen to the customer;
- Mobilization around a fundamental value;
- Fostering autonomy and innovative spirit;
- Obtaining productivity based on staff motivation;
- General and specialist knowledge;
- Managerial training;
- Practical experience;
- Combining rigor with flexibility.

### **3. Every business is a stage and everything you do is a show. The business as theater. Experience Economy.**

The entrepreneur has to prove his visionary skills, he must always identify new opportunities to improve current products/services, current production, promotion, distribution modalities, etc. In this sense, it is very important for the entrepreneur to focus on future business development intentions.

The entrepreneur brings out his experience whenever he conquers a client, creating a personal relationship with him. The experiences are as different to services as the services are to goods.

Experiences are a new source of value and they are events that involve people at a personal level.

Here is something new: experiences have become an existing kind of economic production, yet existing inarticulately so far. Separating experiences from services, so as to discern among the things that companies create, makes possible a tremendous economic expansion – just as recognizing that services are a distinct and legitimate offer has led to a significant economic consolidation.

Richard Schechner, Professor at the University of New York, USA, puts forward the Interpretation Model [7] that makes a comparison between business and theater. The model shows that all economic offers – both experiences and basic products, goods and services – are the result of the passage of an organization from drama, through the script, to theater. Schechner [6, p. 210] defines interpretation as “an activity performed by an individual or a group in the presence of another individual or group”, a definition not only referring to the staging of theater plays, but also to the bare stage of business. In this context, he developed a valuable structure for the understanding of the different types of “mountings”, as he calls them, focused on four key concepts: drama, script, theater and interpretation.

Thus, there is equality between:

Clients = Public

Offer = Interpretation

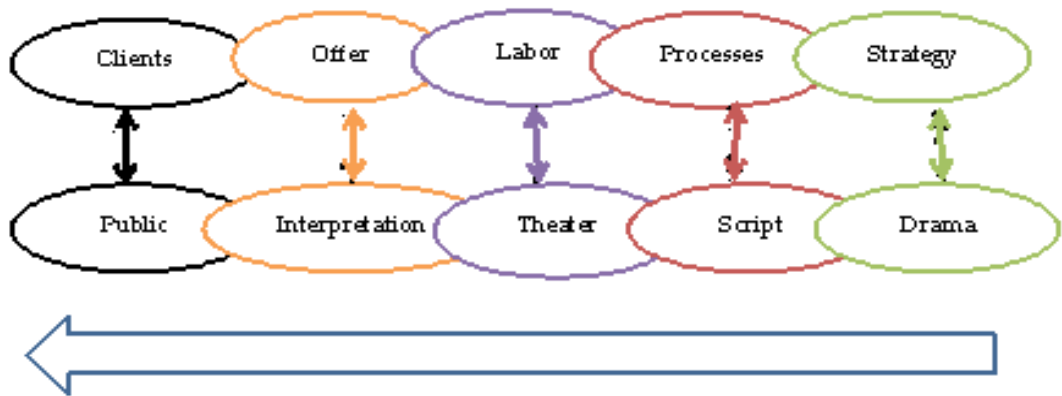
Labor = Theater

Processes = Script

Strategy = Drama

Clearly, the offer is the interpretation, the economic value that businesses create for clients.

Figure 2. Interpretation Model [7]



Source: Author's own processing

A special entrepreneur's vision is that of Walt Disney, when he conceived the original idea for Disneyland: "a cartoon in which the public sinks" [8].

What is the guideline of the Disneyland experience? Disney's proposal to potential investors in 1953 begins with a very simple, yet exciting theme, continuing to elaborate its significance in terms that are extreme real and put into practice: "The Disneyland idea is a simple one. It will be a place where people can find happiness and knowledge. It will be a place where children and parents can share cozy moments in each other's company: a place where teachers and students

will discover greater ways of understanding and education. Here, older generations will be able to relive the nostalgia of the past, and young people will be able to enjoy the challenge of the future." [6, p.99]

Addressing and developing an appropriate theme for an experience is a challenge for each entrepreneur. Developing research and identifying new markets or market segments is absolutely necessary for future business-related intentions.

What approach should an entrepreneur then choose? The economic distinctions where experience can be put into practice are identified in Table 1: [6, p.33]

Table 1 – Economic distinctions

Economic offer	Basic product	Goods	Services	Experience
Economy	Agrarian	Industrial	Services	Experience
Economic function	To extract	To do	To deliver	To stage
Nature of offer	Interchangeable	Tangible	Intangible	Memorable
Key attribute	Natural	Standardized	Customized	Personal
Supply method	Stored wholesale	Inventory after production	Supplied on request	Revealed over a certain period

Seller	Dealer	Producer	Supplier	Director
Purchaser	Market	User	Client	Guest
Demand factors	Characteristics	Features	Benefits	Sensations

Source: Author's own processing

#### 4. Conclusions

If people have so far reduced their consumption of goods in order to spend more money on services, today they are looking for the time and money they need in order to benefit from services that will facilitate more memorable and valuable experiences.

It is becoming more and more obvious that a good business does not only offer goods or services, but also the related experience, rich in sensations, lived by the client. All previous economic offers are close to the purchaser, yet outside him, while experiences are inherently personal. They take place inside any individual who has been involved at emotional, physical, intellectual or even spiritual level. Each experience derives from the interaction between the staged event, the mood and the previous disposition of the individual.

In order to increase the motivation of a business, the entrepreneur has to focus on the four universal elements that make up the way in which, ultimately, businesses create value:

☉ Origin: work generates value from something new;

☉ Execution: work generates value from something done;

☉ Correction: work generates value from something improved;

☉ Application: work generates value from something used. [5]

The change of vision is difficult, and its implementation is even more difficult. Businesses that exist at present are based on goods or services; none has started from the idea of selling the experience. As a new economic offer, the experience is not a bonus that the entrepreneur offers to the consumer to convince the latter to buy a product or service.

In specialized literature, "the business as theater" is no longer a metaphor, it does not come to explain in a more plastic manner what a business means, but it is a guide for the latter's transformation, and the comparison between business and theater evokes a model of action, a new economic offer.

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# Risk Assessment Of Romanian Tourism Destination

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**Abstract:** Over time, tourism sector, at the global level, has faced a number of challenges, from high gasoline prices to war and health hazards. However, tourism is a sector which always has found ways to recover from crises. But it is a sector that cannot recover as long as the whole economy does not. Romanian tourism faces many challenges related to globalisation, a phenomenon influencing most of the world countries. Sustainable tourism development requires to consider and to adapt to various factors, with influence on destinations, businesses, and visitors. Lack of coherent policies and reforms have made their mark on the efficiency, productivity, and contribution of tourism to economic development.

**Keywords:** risk assessment; tourism, Romania

**JEL Classification:** L83, Z32

## 1. Introduction

Sustainable tourism development requires to consider and to adapt to all present and future external environmental factors, connected to economic, socio-cultural, political, legal, environmental, technological circumstances, with influence on both destinations and businesses, but also on visitors. From this perspective, the decision makers, together with all stakeholders operating in the hospitality industry should cooperate to create pro-active actions to combat undesirable effects resulting from external environmental factors and to reduce the risk and uncertainty situations that may occur in the short, medium or long run.

Romanian tourism faces many challenges related to globalisation which influences most of the world tourism destinations. It cannot escape from the economic, social, cultural, political, technological realities, manifesting at the global level, most often having direct and immediate effects on destinations and businesses from the tourism sector.

## 2. Transition - a difficult period for tourism sector

Sustainable tourism development refers to the continuous improvement of the economic and financial benefits of the stakeholders, by promoting practices and types of tourism that respect various aspects of the sustainable development concept (economic, social, environmental and cultural) (Talmaciu et al, 2015). The tourism sector is vulnerable to economic risks, whether there are globally (financial crisis and economic downturn after 2007) or only at national or regional level (those induced by restructuring or transition processes). They have a predictable character

and their consequences on tourism industry are purely economic: expressed by loss of income and jobs, bankruptcies, reduced tourism flows, decrease in investments and tourism expenditures (Talmaciu et al, 2015).

### Transition to market economy

Romania's reputation as an international tourism destination began to deteriorate since the '80s when the communist policy limited the foreign visitor arrivals and the departures of Romanian tourists abroad. In Romania, the '90s were marked by the transition to market economy. This process was an extended one, with profound effects and often negative impacts on various sectors, including tourism. Risks associated with the transition were various, often resulting in unfavourable consequences for a long time and on the proper functioning of the tourism industry in the coming decades. Lack of coherent policies and reforms at national and sectoral levels have made their mark on the efficiency, productivity, and contribution of tourism to regional economic development. For more than eleven years, Romania has gone through a long period of transition, characterized by profound changes and uncertainty (United Nations Development Programme - Romania, 2001). Economic reform programs of the mid '90s had five main objectives: (i) macroeconomic stabilization, (ii) price liberalization and current account convertibility, (iii) restructuring of enterprises (mainly privatization), (iv) building and strengthening social safety, and (v) developing the legal and institutional framework for market economy. Romania preferred a gradual adoption of economic reforms, which led to delays and extension of the transition process. The program of reforms in Romania was focused on the elimination of subsidies,

on the acceleration of the privatization, and strengthening financial discipline of the state enterprises (International Monetary Fund, 2014).

An analysis of the macroeconomic policies implemented in Romania in the first eleven years from transition shows the breadth and depth of changes, and the difficulties and delays experienced. Both political and economic systems are at the same time the objectives of the change, and in turn, these systems interact with changes in social structure (United Nations Development Programme - Romania, 2001). The transition to the market economy from the '90s profoundly marked Romanian tourism sector. The poor economic performance of tourism since 1989 was due to lack of government support, and the privatization process was an extended one. This gradual process of reform led to the first recession of the early '90s, while major economic structural reorganization has been delayed. Post-socialist administration from Romania has not considered tourism (and tourism reform) as an economic priority (Light, 2006).

One of the biggest problems of the transition process was the delayed privatization of accommodation in the sector, and this had negative effects on the quality of accommodation, because of the deterioration of tourist accommodation units. Only a few hotels in major cities have managed to be modernized through management contracts, being taken over by international hotel chains (Light, 2006). Romanian tourism privatization began in 1993, but until 1997 only 15% of the tourist accommodation units were privately owned (Light, 2006; Turnock, 2016). Since 1998, the Ministry of Tourism had to deal with the privatization process of the Romanian

tourism, and 80% of revenues had to be sent to the Tourism Fund. This initiative has been compromised with the transformation of the Ministry into a National Tourism Authority (Turnock, 2016).

Only after 2000 the privatization of tourism was supported by the government, and in 2005 over 80% of tourist accommodation units in Romania were privatized (Light, 2006). Material and technical basis from the Black Sea littoral, otherwise the highest concentration of tourist accommodation units in Romania, has not attracted the attention and interest of investors. The delay in the privatization process of Romanian tourism has meant also the loss of competitive position compared to neighbouring countries (Bulgaria, Hungary), where this process has been completed more quickly and the confidence of the Western European tourists has increased, also increasing the number of international tourists (Light, 2006). Moreover, some non-transparent transactions have raised questions about the fairness of the process.

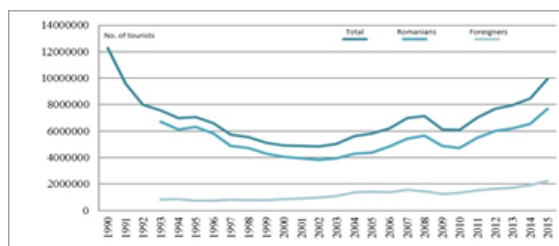
The lack of investments for the development, of modernization and maintenance of specific infrastructure, as a result of very slow and complicated process of privatization, the wrong tax law, lack of support policies from the banking sector led to a fall in tourist flows after 1990 (Țigu, 2012). Mainly in the last 25 years, tourist flows have recorded an oscillating evolution, the periods of growth alternating with numerous periods of decline. The periods of decline in tourist flows from 1993 - 1994 and 1996 - 1999 are mainly because of the economic circumstances of the transition period and to the instability of the social environment. Thus, starting from the foregoing analysis, it results that

Romanian tourism industry was vulnerable to the period of economic, social and political transition from Romania in the '90s, and the public decision makers and the stakeholders in the sector were not able to manage it effectively.

Romania recorded the highest average nominal GDP growth rate in Europe (12.5%), with particularly high growth in 2004 (23%) by 2008. The hospitality sector has followed a similar trend with the GDP, registering an annual average growth rate of 14.5% during 2000 - 2010 and average annual growth rate of

27.8% between 2004 and 2008 (Ernst & Young, 2013). After the accession of Romania to the European Union, because of the higher investments in the tourism industry, especially of the funding from the European Union, but also as a result of increased efforts for a coherent development and promotion strategy for Romanian tourist destinations, and of the increase of households' disposable income, the number of registered tourists in the tourist accommodation units begin to grow (Țigu, 2012).

Fig. 1. Evolution of the number of tourists during 1990 - 2016



Source: created with data from <http://statistici.inse.ro/shop>, accessed on 07.06.2016.

Since 2003, tourists' arrivals in tourist accommodation units started to maintain an upward trend but still remained at a fairly low level. This positive trend was maintained until 2008 when the first effects of the economic crisis were felt. Romania has seen a rapid growth of the tourism sector in the period 2005 - 2008, which was driven mainly by its accession to the EU in 2007; this allowed Romania to obtain EU funds for agrotourism and tourism infrastructure, meaning for the ski slopes, roads and national heritage (Ernst & Young, 2013). In conclusion, Romania followed a restructuring process, a characteristic of the transition to market economy. During the period of robust economic growth after

2002, based on stimulating consumption, changes occurred in the structure of the main activities that have determined an increased productivity. However, the productivity is still much lower than the EU average (Dachin and Burcea, 2013).

### 3. From economic crisis to recovery: new development perspectives for tourism sector

Romanian economy went into recession in 2009, with a decrease of nominal GDP by 15%. The austerity measures, taken by the government, and the Euro crisis reduced the demand in some key export markets of

Romania, but have also reduced the domestic revenues (Ernst & Young, 2013). The global economic crisis has seriously affected the industrial sector in 2009 whose main branches are controlled by the majority of foreign capital and subsidiaries of multinational corporations, being more exposed to international markets. The decline of exports and imports was caused by the effects of the global crisis, mainly from the EU market, which contracted both external demand for Romanian products and international supply for imports from Romania (Zaman and Georgescu, 2009). The economic crisis has affected the private sector, which means that a significant percentage of small and medium sized enterprises have reduced their activity. An immediate consequence of this situation was a loss of jobs for a large part of the population and, consequently, an increase in unemployment. In general, the economic crisis led to negative changes in the socio-economic development of Romania, and therefore to a lower level of quality of life for most people. Reducing the productive activity from the private sector immediately has reflected in GDP which recorded a downward trend (Fleşer and Criveanu, 2012). The shock of the economic crisis primarily affected sectors such as construction, trade, and tourism, sectors that provide large numbers of jobs, but also has generated a reduction in productivity, because of the rigidity of the labour market (Dachin and Burcea, 2013).

The economic crisis has generated a number of negative effects on the population, felt through: deterioration of living standards - people with average incomes felt more strongly the impact of the economic crisis; increase in unemployment for a large number of employees; limiting the employment

opportunities for persons with higher education (Mărcuță et al, 2013). During the economic crisis, the labour market in Romania has been strongly influenced by various economic, political and social factors. After a period of economic growth and rising living standards, the global crisis has affected Romanian labour market and stressed imbalances and vulnerability of Romanian economy as a whole (Fleşer and Criveanu, 2012). Amid pay cuts, decreasing the purchasing power of Romanians, but also decreasing foreigners' appetite for longer and expensive trips in other countries, Romanian tourism sector experienced a contraction in terms of direct contribution of the travel & tourism industry during 2009 - 2010 by 15% and 6%, respectively. If by 2008 the hospitality sector recorded an increase, the turnover reaching about 3 billion euros, by the end of 2010 it decreased by 22%, reaching 2.3 billion euros (Ernst & Young, 2013). Therefore, the most recent period of crisis for Romanian tourism is the one of the years 2009 - 2010, the result of the Romanian economic recession, generated by the global economic crisis whose first effects were felt in late 2007.

The economic crisis has caused a change in consumers' behaviour, with consequences on the tourism industry. Because of the crisis, some individuals have decided not to go on holiday or have changed their preferences in terms of the tourist destination (Bălan and Bîrsan, 2010). At the same time, the economic crisis effects on the Romanian tourism have emerged as a stagnation or decrease in the number of tourists who used to prefer certain tourism forms, eg. seaside tourism in September and in the first decade of October. At the same time, a decrease in the attractiveness of standard offers of tourist services

was observed (accommodation, transport), customized offers being created in order to better satisfy the needs and demands of the tourists. In the time of economic crisis, the customers, both individuals, and businesses, have become more careful with the money and more receptive to promotional offers (Popescu and Nişulescu, 2013). On the other hand, the inability of government authorities in the tourism sector to identify effective solutions in order to control crises and find solutions for sustainable development should be mentioned (Talmaciu et al, 2015).

The source for GDP recovery in 2010 and 2011 was the industry, which shows that it can contribute to a healthy economic growth. The positive trend in industrial production is closely linked to labour productivity and investments in the sector, with the condition of an orientation towards activities with a higher added value based on innovation and non-polluting production methods, with a higher degree of products sophistication and level of qualification of the employees (Dachin and Burcea, 2013). In 2015, Romania had one of the highest increases in the EU, of 3.7%, driven mainly by domestic demand. Romania's macroeconomic situation is stable, with low inflation and external deficits, but the risks are important. The growth is strong, fuelled by fiscal loosening and improvement of the labour market conditions. Gradual improvement in labour demand and recent wage policy changes have led to fast increases in wages (Worldbank, 2016). However, in order to predict economic trends of a country like Romania, it is not enough just to analyze the economic cycle. It is also necessary to undertake an analysis of the economic policy, to identify the potential players and potential risks (Hapenciuc et al, 2009).

#### **4. Political and legislative environment: uncertainty and instability**

A category of crises with very serious implications on tourism and economies as a whole are those induced by political risks, such as terrorist attacks in West European countries or armed conflict (eg. Ukraine), civil unrest, and governmental instability. The negative effects of political risk on the tourism sector are complex, especially the direct ones, because of the human and material losses, infrastructure losses, destruction of the natural and cultural heritage assets, but also the indirect ones, through the uncertainty of the population and tourists, changing the living conditions, reducing or forwarding of some tourist flows to other destinations perceived as safe by tourists (Talmaciu et al, 2015). Romania is outside the risks of terrorist attacks, having a favourable geostrategic position and special relationships with countries from Muslim world (Hapenciuc et al, 2009). However, the negative effects of terrorist attacks may have repercussions on large geographically areas, affecting tourism in the countries that form a region or even the worldwide tourism flows (Talmaciu et al, 2015).

Since 2004, Romania has a Terrorist Alert National System (TANS) in order to support the planning process of anti-terrorist activities nationally, as well as to inform people about the threat of terrorism. Since the establishment of TANS (2004) and to the present, in Romania, the terrorist alert level was Cautious (Blue), except for a short period - at Bucharest NATO Summit (2008), when the level was Moderate – Yellow (SRI, 2016). The previous terrorist attacks (September 11th, 2001, USA; November 13th, 2015, France; March 2016, Belgium and June 2016,



Turkey) had no direct effect on the Romanian tourism. Rather, with fear of unfortunate incidents, tourists will opt out of some trips abroad, especially in France, Belgium, and Turkey, preferring closer destinations to home, even within the country of residence.

However, the fear of terrorist attacks will not last a very long period of time (in the absence of similar incidents), the propensity to consumption of foreign tourist services increasing in the future.

Table 1: Safety and security indicators

No.	Indicator	Value	Position/141
1	Business costs of crime and violence <sup>1</sup>	5.4	65
2	Reliability of police services <sup>2</sup>	4.4	74
3	Business costs of terrorism <sup>3</sup>	4.8	96
4	Index of terrorism incidence <sup>4</sup>	7.0	1
5	Homicide rate <sup>5</sup>	2	42

Source: World Economic Forum (2015), *The Travel & Tourism Competitiveness Index 2015, Growth through Shocks*, Geneva

Notes: 1In your country, to what extent the incidence of crime and violence impose costs on businesses? (1 = to a large extent, 7 = not at all) | 2013-2014 weighted average

2In your country, to what extent the police services can be relied upon to enforce law and order? (1 = cannot be relied upon at all, 7 = can be completely relied upon | 2013-2014 weighted average

3In your country, to what extent the threat of terrorism imposes costs on businesses? (1 = to a large extent, 7 = not at all) | 2013-2014 weighted average

4The simple average of terrorism-related casualties no. (injuries and fatalities) and the number of terrorist attacks, each normalized on a scale from 1 to 7 | 2010-2013 total

5Number of homicide cases per 100,000 inhabitants | 2012 or the latest

Safety and security are key factors in determining the competitiveness of the travel and tourism industry in Romania. The tourists may be discouraged to travel to dangerous countries or regions, making them less attractive for the development of

travel and tourism sector. Travel & Tourism Competitiveness Index for 2015 examines issues related to costs of crime, violence, and terrorism, and the extent to which the police services can be relied upon to provide protection against crime. For Romania, these indicators reflect average to low costs for crime, violence, and terrorism, and businesses have a medium to high confidence in the police services to maintain law and order. However, for travel and tourism sector, the threat of terrorist incidents is void, and the homicide rate is low.

Tour operators, tourist destinations, and national associations should always be aware of the plans and counter-terrorism arrangements developed within each country. This requires awareness of current alert levels and understanding of any special or additional measures to be taken to protect visitors when the alert level is increased (APEC, 2006). According to the Risks Map 2016 prepared by Control Risk, Romania's security risk is low, and the political risk is medium.

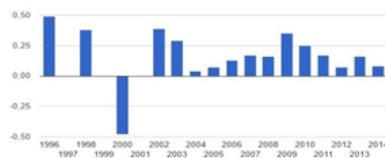


Fig. 2. Risks map 2016



Source: <https://riskmap.controlrisks.com>, accessed on 07.06.2016.

Fig. 3. Political stability index



Source: [http://www.theglobaleconomy.com/Romania/wb\\_political\\_stability](http://www.theglobaleconomy.com/Romania/wb_political_stability), accessed on 07.06.2016

**Government instability** was a characteristic not only in the '90s but also in 2000s, with an inadequate legislative framework which has made its mark on the tourism sector. The World Bank provides data for Romania from 1996 to 2014 regarding the political stability index (-2.5 weak; 2.5 strong). The average value of this index for Romania during this period was 0.17 points, with a minimum of -0.48 points in 2000 and a maximum of 0.49 points in 1996. Thus, in 2014, Romania was ranked 95 from 191 countries, exceeding only Greece at EU level. The index of political stability and absence of violence / terrorism measures the likelihood perceptions that the Romanian government will be destabilized or overthrown by unconstitutional or violent means, including politically motivated violence and terrorism.

Romania experienced a sudden transformation from a clearly undemocratic regime to a democracy which was quite different from the classical model of democratization. First, since 1989, most of the old ruling elite remained and took advantage of the democratic electoral context, until quite recently. Second, the emerging capitalist class included many former elite members, a circumstance which somewhat has reduced the success of capitalist transition. Political conflicts have created a deadlock in the country's government process and

induced certain social events, slowing down the application of many government policies (United Nations Development Programme - Romania, 2001). The variety and complexity of regulations, frequent changes in legislation and a limited access to information has boosted the informal economy. Between 1995 and 2013, the law on registration and classification of pensions has been revised and amended various times. High frequency of inspections, sanctions imposed by the arbitrary and sometimes corrupt behaviour of control authorities induced the perception of harassment and abuse among tourism operators (Rădan-Gorska, 2013).

The **political system** in Romania is still behind EU standards. While personal conflicts between policymakers tend to overshadow the policy development process, the commitment of political elite to the common good is perceived as weak, which tends to affect the policy acceptance by the public (Rabobank, 2016). In 1990 the Ministry of Tourism, which existed since 1971, was merged with the Ministry of Commerce and later reinstated in November 1992. In 1998 it was replaced by the National Authority for Tourism following a governmental reorganization. Ministry of Tourism was reinstated in November 2000, but later in 2003 was disbanded and combined with the Ministry of Transport and Construction. Each of these

administrative reorganizations was accompanied by changes in personnel and management and therefore there was no consistency or continuity in the development and implementation of tourism policy, while long-run tourism planning was limited (Light, 2006). Therefore, in the last 25 years, the National Tourism Organization from Romania took various forms, from the one of a Department, to the National Tourism Authority or Ministry of Tourism, and there was no continuity in the development of tourism policy. The last 10 years were characterised by the development of a National Tourism Master Plan in Romania for the period 2007 to 2026, developed with the support of the World Tourism Organization. Also, there was no continuity in the management of the National Tourism Organisation, over 25 persons being appointed, coming from various political parties, having different interests, limited training in tourism and reduced managerial experience. At the same time, the regulatory framework regarding the requirements for obtaining various certificates for business operation (health and safety/consumer protection, environmental protection and urban planning compliance) as a tourism accommodation, public catering facility, travel agency, etc., is characterised by high bureaucracy, often implying the action of the owners in area of the informal, sometimes unintentionally (Rădan-Gorska, 2013). However, policy and legislation continues to represent the fundamentals of the tourism sector development, and these two aspects should not be overlooked when it comes to the future development of Romanian tourism. Political instability and weak enforcement of law at national level induce risk and uncertainty situations for tourism destinations.

### **Civil disturbances**

According to data provided by Freedom House (Romania-Nations in Transit, 2013),

Romania is perceived as a semi-consolidated democracy with a score of democracy of 3.46 in 2016 (on a scale from 1 to 7, with 1 representing the highest and 7 the lowest level of democratic progress), which is below the regional average. Throughout the '90s and in the next decade, the country economy was faced with numerous problems representing the transition period to the market economy. Price increases and food shortages led to civil unrest and also to mines closures, strikes on large scale and demonstrations of miners (NSD, 2016). However, since the collapse of the communist regime in 1989, Romania had no major cases of civil unrest (OSAC, 2016). On the other hand, the media played a major role, the ethnic tensions between Romanians and Hungarians from Transylvania were excessively mediated, and also the presence of extreme nationalist political parties in the period of 1992 - 1995, raising questions among Western society regarding the validity of reforms in Romania. Another social problem, specific to the transition period, has been the orphans, Romania being seen as a country unable to manage this problem, requiring West European external support in this regard (Light, 2006).

In conclusion, the general social context in Romania poses no risk to tourism activity at the country level, although the period of political and economic instability and protests of the '90s affected the country image and also the confidence of foreign tourists in this destination.

### **Armed conflicts**

Another exceptional feature of Romania's political and economic transition is the absence of violence since 1989. It is true that the transition in Romania started in a violent way because there was no negotiation involved in the transfer of power. However, the Romanian experience was relatively non-violent, compared to transition

period in other former communist countries, particularly in the former Yugoslavia, the Caucasus, etc. (United Nations Development Programme - Romania, 2001). Thus, Romania was characterised after 1989 by the absence of armed conflict, and there was no such additional risk for the tourism sector.

### Conclusions

Tourism is a sector vulnerable to situations of risk and uncertainty, and to market volatility. However, in the periods of economic crisis, tourists continue to travel, in a lower number, with a travel model different from previous periods. Thus, tourists generally have a shorter holiday period, and closer to their home. They also spend smaller amounts and purchase fewer services or products from the visited areas, preferring customized services.

One way for the destinations to adapt to this situation is to develop new tourist products and services, tailored to the specific needs and desires of the customers, and promoted to tourists closer to their home. Thus, holidays may have more activities which may be undertaken nearby. Economic crises can have powerful effects on tourism in general, but also on other sectors. To be able to face the challenges, tourism businesses will have to adapt, to achieve high levels of efficiency, and to persuade tourists to buy their products and services.

In times of crisis, most businesses can address marketing strategies in which promotions can have the largest share. A strong emphasis may have the loyalty programs, which, for a business, implies less investment in keeping current customers, compared to attracting new ones.

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# The sustainable management in the e-waste and municipal solid waste sectors

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**Abstract:** The multiplication and diversification of the waste resulting from economic activities can be explained by the development of the society, which implies the waste as secondary effect. Apart from the positive effects on the global consumption, the economic activities have also negative effects on the humans and environment due to the waste generation. The sustainable management in the waste sector should increase the efficiency in the resources use and prevent waste generation, should find new production methods and new eco-designed products, so that the economic growth can be made with fewer natural resources and materials, with less energy consumption. The transition to a greener waste sector is an important issue for all the national economies and it suppose reducing and preventing waste generation, improving waste recycling and qualitative valorization, reducing the environmental impact of the waste, improving the existing national and international databases, encouraging green investments and a closer and a better collaboration between the local public administration authorities, the companies and the population and also between economic subjects from different countries.

**Keywords:** sustainable management, e-waste, municipal solid waste, recycle, reuse, remanufacturing.

**JEL Classification:** A13, D12, D18, D62, E61, F42, I15, O21, O25, O33

## 1. Introduction

The development of the society implies the multiplication and diversification of all the types of economic activities, which, as secondary effect, causes the increase of the volume and diversity of the waste resulting from these activities, especially from production and consumption. "Wastes are material residues resulting from a technological (or domestic) process of making a particular product which can no longer be directly exploited in the production of the product. They can be substances, materials, objects, scraps of raw materials from economic, domestic and consumer activities. Most human activities are also sources of waste generation." [2] Under the "Waste Framework Directive 2008/98/EC", Art. 3(1), the European Union defines waste as "an object the holder discards, intends to discard or is required to discard." [7]

The sustainable management must be a priority in all economic activities, including the waste generation and processing. State intervention and the awareness of all economic agents, especially the producers and the consumers, on the need to practice a sustainable management in these areas are particularly important given the fact that a significant increase in the amount of waste is foreseen worldwide. In the future, the increase of the urbanization will lead to a rise in the amount of generated waste, especially of the municipal solid waste. Currently, the human society extracts and uses 50% more natural resources than just 30 years ago and uses 8 times more materials than 100 years ago.[5] Raising states awareness as well as individual entrepreneurs on the need for a better waste management should be a priority of all the world's nations. By practicing the sustainable management in these fields, the

production activities can be more efficient and friendlier to the environment, will improve living conditions and will reduce social inequalities in the long run..

This paper aims to underline the importance to introduce together with the elements of the traditional management, the new principles of the green economy, the sustainable management, which will improve the resource efficiency, will lead to create jobs - most of them in the waste sorting and recycling sector, to save resources by increasing the energy production from waste and by increasing the compost production from organic waste, to reduce greenhouse gas emissions and to reduce the poverty.

The paper presents the most important issues concerning the transition to a greener waste sector, which highlights complex issues that are not always easy to solve, as highlighted in: "Towards a Green Economy. Pathways to Sustainable Development and Poverty Eradication" - "The environmental and social (including health-related) benefits from greening the waste sector have been stressed already for a long time. The impact of this has, however, been limited, as environmental and social concerns are often seen as competing with economic imperatives." [5]

In the last years was introduced the "Integrated Solid Waste Management (ISWM)" which aims to reduce waste and to improve the system of waste collection and processing, in order to protect population's health and the environment and biodiversity. "Integrated solid waste management refers to the strategic approach to sustainable management of solid wastes covering all sources and all aspects, covering generation, segregation, transfer, sorting, treatment, recovery



and disposal in an integrated manner, with an emphasis on maximizing resource use efficiency.” [8]

The importance that the European Union gives to this sector is underlined by the fact that many studies are being carried out on the basis of the information provided by the member states on the structure and the quantity of the resulting waste, on the collection methods and on the costs required by treating them.

In Romania, the “National Waste Management Strategy” provides a series of measures that, in addition to reducing and preventing waste generation, aim to improve waste recycling and qualitative valorization and to reduce the environmental impact of the waste, which implies the improvement of the existing national databases, encouraging green investments and a closer and a better collaboration between the local public administration authorities, the companies and the population.

## 2. Literature Review

Regarding the importance of the waste sector for the European Union countries, the “European Commission”, underlines the „Key elements of the revised waste proposal include:

- A common EU target for recycling 65% of municipal waste by 2030;
- A common EU target for recycling 75% of packaging waste by 2030;
- A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030;
- A ban on landfilling of separately collected waste;
- Promotion of economic instruments

to discourage landfilling ;

- Simplified and improved definitions and harmonised calculation methods for recycling rates throughout the EU;
- Concrete measures to promote re-use and stimulate industrial symbiosis –turning one industry’s by-product into another industry’s raw material;
- Economic incentives for producers to put greener products on the market and support recovery and recycling schemes (eg for packaging, batteries, electric and electronic equipment, vehicles). [9]

Romania’s policy in this field is highlighted in the “National Waste Management Strategy, 2014-2020”, which is an important element in the specific legislation implementation process. This Strategy refers to all the economic subjects: Government, industrial producers, agricultural producers, traders, non-governmental organizations and population.

“The strategy continues to fully recognize the following:

- The government is committed to pursuing a “recycling society”.
- Sustainable waste management, including the prevention of waste generation, is a must to protect the environment in relation to climate change and the preservation of natural resources.
- One of the government’s priorities is to decentralize local decision-making authorities to the local communities.
- Resource efficiency and sustainable waste management can provide significant savings.
- Energy recovered from bio-waste contributes to meeting the targets for the use of renewable energies with a long-term goal of climate change.



- Applying the principles of sustainable development implies a new approach using environmentally-friendly concepts to accurately measure the actions proposed in the area tackled by this strategy with existing environmental resources. Renewable and non-renewable resources and services provided by the Natural Capital components are the support for the production of goods and services provided to human socio-economic capital, directly affecting the quality of the population's health.

- The themes approached in the strategy support the requirements and opportunities of the framework in which the sustainable co-development of the components of Natural Capital and human socio-economic systems must be designed and implemented in view of the sustainable development of the national territory." [6]

In „Towards a Green Economy. Pathways to Sustainable Development and Poverty Eradication" [5], there are underlined the most important issues regarding the waste sector: „There is a substantial variation across countries in the magnitude of government spending on the waste sector..... developing countries typically spend more than half of their waste budget in collection alone (mainly on labour and fuel), although the collection rate remains low and the transport of waste inefficient. Spending on other segments of the waste management chain, such as technologies and facilities for treatment, recovery and disposal, is generally rather low.... Investment can be targeted, for example, at techniques such as route optimisation and transfer stations, which can bring down the capital and operational costs of providing waste services. In emerging economies with rapid growth and urbanisation, the need for

increased investment in greening the waste sector is particularly strong. Greening the waste sector is expected to generate substantial economic, environmental and social benefits. They include: 1) natural resource and energy saving; 2) creation of new businesses and jobs; 3) compost production supporting organic agriculture; 4) energy production from waste; 5) reduced GHG emissions; and 6) contributions to equity and poverty eradication. Improved health, avoided health costs, avoided water contamination and the consequent cost of alternative water supply are also important streams of benefits."

The book „Waste Management: a Reference Handbook" the author describes an interesting chronology of the waste management, beginning from the XVIII century, especially in the case of developing cities as a result of the Industrial Revolution. [2]

On the importance of the electronic waste resulting from the development of industry and communications, the authors of the book „E-Waste Management. From Waste to Resource", analyses different national regulations worldwide regarding the reuse and recycle of e-waste, the perspectives of the management strategies in order to improve aspects related on environmental, social and economic area. „Electronics equipment significantly influences the way societies relate, and it is impossible to ignore the vast positive impacts of electronics use by society. Nevertheless, important concerns also exist related to the flow of electronics deemed obsolete by consumers (e.g. households, corporations, public agencies, schools) all over the world. These concerns intensify as the manufacturing and adoption rate, triggered by technological development of these devices, increases around the world." [1]

### 3. Electronic waste

"Electronic waste" or "E-Waste" may be defined as discarded computers, office electronic equipment, entertainment device electronics, mobile phones, television sets and refrigerators. This includes used electronics which are destined for reuse, resale, salvage, recycling, or disposal. Others are reusable (working and repairable electronics) and secondary scrap (copper, steel, plastic, etc.) to be "commodities", and reserve the term "waste" for residue or material which is dumped by the buyer rather than recycled, including residue from reuse and recycling operations, because loads of surplus electronics are frequently commingled (good, recyclable, and non-recyclable), several public policy advocates apply the term "e-waste" broadly to all surplus electronics." [15]

The risks associated with e-waste from TV and video are related to the penetration of toxic heavy metals into the soil and water, increasing its acidity, as well as some glass and plastic scraps and also to the generation of toxic gas emissions in the air.

Also in the case of the e-waste, an important role has the recycling process, in which some metals such as lead, copper and gold have a special attention. 1 tone of metal scrap from PCs contains more gold that can be recovered than the one contained in 17 tons of natural deposits and 40 times more copper than in natural deposits. [5]

Recycling involves the decomposition of the electronic products by components and a separate treatment of each of them, depending on its characteristics. By reusing metals, natural resources are conserved because less of them are consumed. In the most situations, this process also contributes to reducing greenhouse gas emissions because it does not

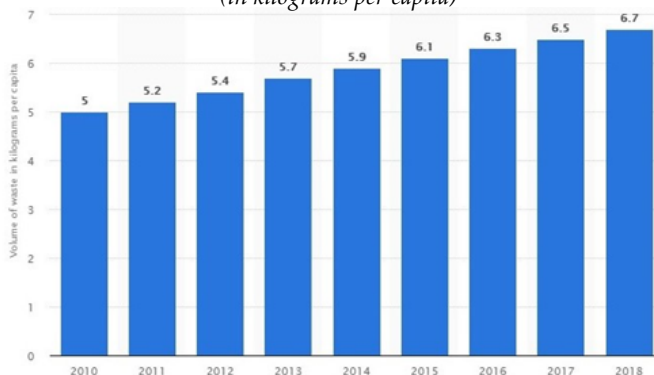
consume as much energy as the initial process. Much of the components, such as glass, plastic, even some metal components, can be remanufactured. The recycling process must be carried out with responsibility so as to be as little as possible harmful to human and environmental health. Besides these benefits, recycling often also involves relatively lower costs comparing to the initial process.

Since the 1990s, there has been a significant increase in e-waste recycling concerns both in Europe and the USA. In 1991, Switzerland introduced a recycling program for refrigerators, and then the EU launched the "Waste Electrical and Electronic Equipment Directive" (WEEE Directive, 2002/96 / EC). Worldwide, good results have also been achieved in Japan, Taiwan, South Korea and South Africa.

Recycling can also be done by consumers when they donate electronic products to individuals or companies who need them and can not buy them or when they return the products to their own producers in order to re-manufacturing them. One of the issues related to remanufacturing is that manufacturers do not always support the remanufacturing process because they think it is against the possibility of promoting their new products. Recycling by authorized companies is beneficial not only because it reduces the consumption of the existing resources but also because it creates many new jobs.

The first countries that generate the biggest amount of e-waste were, in 2015: USA, China, Japan, Germany and India. The countries which lead, in 2014, in per capita production of e-waste are Norway, Switzerland, Iceland, Denmark, United Kingdom, Netherlands, Sweden, France, Austria and USA.

Chart 1. Forecast of per-capita electronic waste generation worldwide from 2010 to 2018  
(in kilograms per capita)



Source: <https://www.statista.com/statistics/499904/projection-ewaste-generation-per-capita-worldwide/>

“Recycling is also an expensive process, especially when it is done properly with secure and safe technology and conditions. So many countries export waste is to Asia and Africa, where the rules governing e-waste management are lax. In Europe, 47% of the e-waste export, and 50-80% of e-waste export was found to be illegal. The Asian and African countries, however, do not have

adequate technology or the means to handle the e-waste. People, including children handle toxic components with bare hands, leading to health problems.” [16]

In Romania, electronic waste, resulting from domestic production, as well as from imported goods, is classified in some categories which are resulting from the next table:

Table 1. Waste electrical and electronic equipment collected, 2010-2014 (Romania)

Types of e-waste	Amount of e-waste (tonnes / year)				
	2010	2011	2012	2013	2014
Large size households devices	14.119,93	9.987,33	11.398,81	20.315,61	20.465,24
Small size households devices	913,64	673,18	864,21	977,49	1.021,16
IT and telecommunications equipments	6.459,84	5.446,30	4.976,01	4.886,16	4.803,30
Widespread consumption equipments	3.567,23	3.199,49	3.513,5	4.671,74	3.513,27
Lighting equipments	182,66	291,95	776,99	837,26	1.140,05
Electric and electronic tools	625,81	743,07	691,64	702,87	815,37
Toys, sports and leisure equipment	62,73	94,57	59,84	89,82	65,60
Medical devices(except for all implanted andinfected products)	19,86	20,51	58,19	28,44	34,07
Supervision and control tools	215,41	464,17	686,63	505,58	236,42

Automated distributors	79,50	87,69	56,94	149,78	64,51
Total	26.246,61	21.008,26	23.082,76	33.164,75	32.158,99

Source: [http://www.mmediu.gov.ro/app/webroot/uploads/files/2017-04-27\\_PNGD\\_versiunea\\_1.pdf.pdf](http://www.mmediu.gov.ro/app/webroot/uploads/files/2017-04-27_PNGD_versiunea_1.pdf.pdf) – processed by the author

As in the rest of the world, for the management of this category of waste, in Romania the economic agents can act individually or by contracting some of the over 800 authorized economic operators. Among the most frequently there are: the low level of collection of this type of waste, some legislative aspects regarding the responsibility of the collection and the way of involvement of some institutions and organizations, issues related to the financing of the required investments.

The Emergency Ordinance no. 5/2015 on waste electrical and electronic equipment, which has been elaborated in the spirit of EU directives, refers to the separate collection of waste, its disposal and transport, the collection rate and the corresponding treatment.

According to the study on "Quantification of electrical and electronic waste in Romania": "in 2015, a Romanian person holds on average 72 kg of Electrical and Electronic Equipment (EEE). Of these, 7.35kg/person are disposed of as Electrical and Electronic Equipment Waste (EEEW). A maximum of 30% of what is generated is collected through official collection systems and reported as a national result, 21% reach relatives and friends, and the rest of the cases are characterized by negative habits: are going to garbage, are handed down to old or discarded street collectors at random. This is the real landscape of the generation, collection and recycling of EEEW in Romania." [17]

#### 4. Municipal solid waste

The composition of solid municipal waste is very different, depending on the

degree of development of each city. In this category of waste, can be included the waste resulted from households, from the commercial units, from public and private institutions and from industrial enterprises. In most of the countries, the municipal solid waste does not include agricultural, medical and radioactive waste.

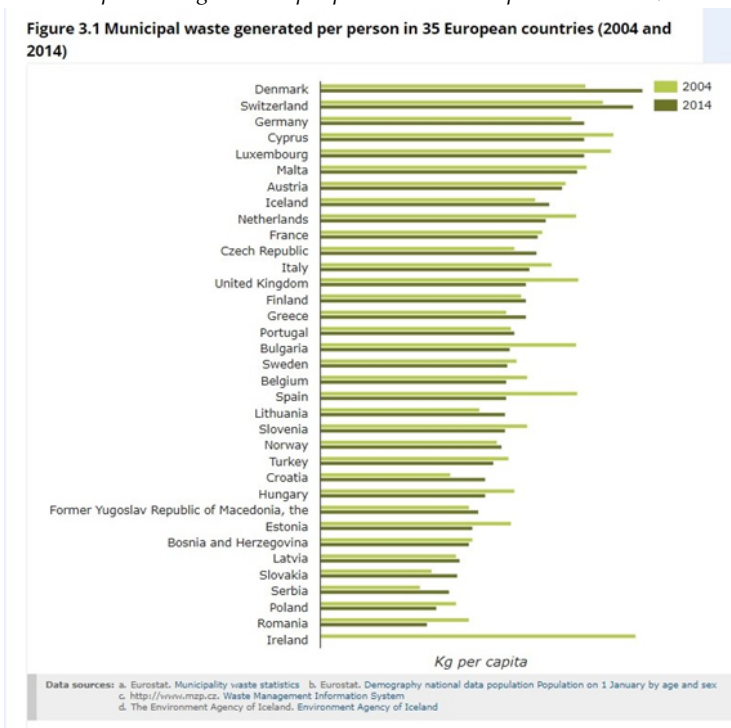
The waste management involves a series of chain-linked activities. An important operation before collecting waste is sorting it into categories. The main categories of solid municipal waste are plastic or other packaging materials, waste from construction or demolition processes, waste resulting from the products sales. One of the most important activities is the waste collection, which involves the transport of the waste either in special warehouses or to the companies which are processing them at transfer or firing stations. Much of solid municipal waste is eliminated by land filling, which raises serious health and safety problems for people and animals by creating the possibility of contamination through insects or groundwater. Accordingly, the activities of reuse of waste have a great importance. Currently, there is a possibility for interested economic operators to reuse the waste they can find free on various websites. In the recent years, the methods of purchasing energy based on waste have also been improved so as to reduce the percentage of eliminated greenhouse gases at the firing stations.

Within the European Union, especially from the beginning of the XXIth century, a special attention has been given to

the ways of preventing waste generation, storage and re-use. "In 2015, the European Commission proposed new targets for municipal waste of 60% recycling and preparing for reuse by 2025 and 65% by 2030." [12] Generally, at the level of all European countries, there is an increasing concern for the waste management, emphasizing the recycling activity, as an important generator of jobs and reduces the negative effects on the environment, which is included in the national development plans in most of countries. Countries with the highest recycling rates are Lithuania, Poland, Italy, the United Kingdom and the Czech Republic. For example, on Lithuania, "Municipalities are the main institutions organising municipal waste management, with the main responsibility to create effective waste management systems.

12 Local authorities are also responsible for reaching EU targets regarding recycling and recovery - with the exception of some waste streams (WEEE, packaging batteries and accumulation waste) which are managed by Extended Producer Responsibility schemes. They set out the terms of municipal waste collection, transport, treatment and disposal. They are also responsible for ensuring that the waste treatment installations function. In Lithuania, residents pay a monthly fixed fee for waste management. Municipalities are responsible for billing and collection of fees (Ernst & Young, 2011). Waste management is financed under the 'polluter pays' principle. Municipal waste management is conducted according to the municipal waste management rules". [7]

Chart 2. Municipal waste generated per person in 35 European countries (2004 and 2014)

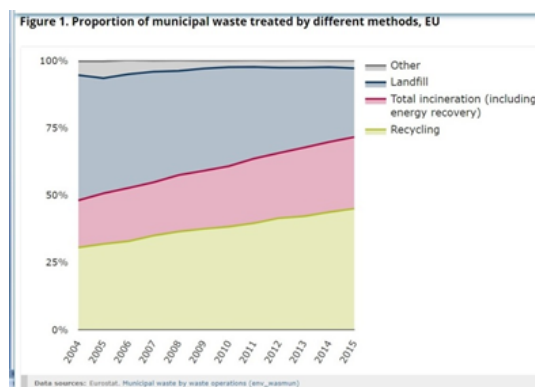


Source: <https://www.eea.europa.eu/themes/waste/municipal-waste/municipal-waste-management-across-european-countries#tab-related-interactive-charts>

One of the main tools used in many European Union countries is to increase the level of charges for landfill of waste, as well

as to increase incineration and, in particular, recycling activities.

Chart 3. Proportion of municipal waste treated by different methods, EU



Source: <https://www.eea.europa.eu/airs/2017/resource-efficiency-and-low-carbon-economy/recycling-of-municipal-waste>

In order to increase the recycling and reuse processes and to reduce landfilling with long-term benefits, the European Commission created in December 2015 the „The Circular Economy Package (EC, 2015), includes a number of proposed targets and measures beyond 2020, which can move the EU towards this objective:

- ⊗ a common EU target of preparing 65 % of municipal waste for reuse and recycling by 2030;
- ⊗ a common EU target of preparing 75 % of packaging waste for reuse and recycling by 2030;
- ⊗ a binding landfill target to reduce landfill to a maximum of 10 % of municipal waste by 2030;
- ⊗ a ban on landfilling of separately collected waste;
- ⊗ the promotion of economic instruments to discourage landfilling;
- ⊗ simplified and improved definitions

and harmonised calculation methods for recycling rates throughout the EU;

- ⊗ concrete measures to promote reuse and stimulate industrial symbiosis — turning one industry's by-product into another's raw material;
- ⊗ economic incentives for producers to put greener products on the market and support recovery and recycling schemes (e.g. for packaging, batteries, electrical and electronic equipment and vehicles)."[14] Among the measures which can lead to this aims, there are: to create an unique market for the fertilizers made from secondary raw materials, to encourage the cooperation between all the economic subjects involved in the innovation process, to encourage a better involvement of the local and national authorities in this process, to stimulate the eco-design of the products, to prevent food waste, to find more efficient ways of transforming waste into energy, as well as to develop the



awareness raising of those that can finance these activities.

“In the current funding period (2014-2020), ex-ante conditions for funding are in place to ensure that new investments in the waste sector are consistent with the waste management plans designed by Member States to meet their recycling targets. The EU support for the 2014-2020 period for innovation, SMEs, low carbon economy and environmental protection amounts to EUR 150 billion and many of these areas are contributing to the achievement of a circular economy.” [4]

In Romania, were made in the last year several proposals to revise the legislative framework. The main objectives are to reuse and recycle 60% of municipal waste by 2025 and 65% of it by 2030. A number of laws have been drafted in this area, of which, in recent years: Law no. 249/2015 on how to handle packaging and the packaging waste, with subsequent modifications and additions; Law no. 212/2015 on how to manage vehicles and the end-of-life vehicles; Law no. 217/2017 on the reduction of food waste; GEO no. 5 / 02.04.2015 on waste electrical and electronic equipment.

Table 2. Generation of Municipal Waste, 2010-2014 (Romania)

Types of municipal waste	Amount of municipal waste (tonnes / year)				
	2010	2011	2012	2013	2014
Household waste	14.119,93	9.987,33	11.398,81	20.315,61	20.465,24
collected in the mixture and separated	3.367.325	2.955.517	2.654.525	2.817.947	2.900.695
Similar waste collected in the mixture and separated	1.176.870	917.794	852.591	874.591	902.144
Wastes from gardens and parks	123.514	100.700	3.513,5	4.671,74	3.513,27
	95.223	97.204	70.134	837,26	1.140,05
Wastes from markets	81.773	90.024	691,64	702,87	815,37
	71.270	61.330	54.170	89,82	65,60
Road wastes	343.550	294.478	313.823	391.168	340.948
Generated and uncollected municipal waste	1.250.112	857.650	1.056.687	828.564	687.985
Total of the generated municipal waste	6.343.144	5.216.162	5.044.121	5.070.805	4.956.075

Source: [http://www.mmediu.gov.ro/app/webroot/uploads/files/2017-04-27\\_PNGD\\_versiunea\\_1.pdf.pdf](http://www.mmediu.gov.ro/app/webroot/uploads/files/2017-04-27_PNGD_versiunea_1.pdf.pdf) – processed by the author



As structure, the largest weights in the municipal waste are occupied by the biological waste, followed by paper and cardboard waste, plastic and glass. Over the past few years, more than 70% of the waste was generated by the population, while the waste in the public services recorded an average share of 9-10%. Compared with the rate of change in GDP, starting with 2012, there was a reduction in the amount of municipal waste, along with the rising of the GDP growth. Waste management is carried out by authorized operators, sanitation, treatment, recycling and disposal operators. Municipal waste management is done through various methods, of which the most important are: material recycling, composting, co-incineration, elimination, storage, incineration. In the last years, the total municipal waste recycling rate averaged around 13% and according to the National Environmental Protection Agency, in 2014, the material recycling rate was about 5% and the rate of composting was about 8%. The Integrated Waste Management projects have been or will be implemented in Romania at the level of most counties.

The waste collection is made on three different categories (paper/cardboard, plastic/metal and glass) at special collection points, there are over 150 sorting stations, numerous composting stations, spread relatively homogeneously in the territory and the deposits exist in all the counties of the country. According to the Law 101/2006 "the sanitation service of the localities is a public service that is organized to meet the needs of the population and is under the control, leadership or coordination of local public administration authorities or intercommunity development associations"

## 8. Conclusions

The transition to a more efficient and environmentally friendly economy, to a greenest one, must be a general objective of all the economic subjects. Sustainable management strategies should take into consideration all the economic fields, in order to protect the future generations. There are necessary some new economic policy strategies, together with the population awareness and the voluntary action of the private sector. It is particularly important to create national and international regulations and increase the co-operation between all those involved in the implementation of the economic policies.

There are very important the new principles of the green economy and of the sustainable management, which will improve the resource efficiency, will lead to create jobs - most of them in the waste sorting and recycling sector, to save resources by increasing the energy production from waste and by increasing the compost production from organic waste, to reduce greenhouse gas emissions and to reduce the poverty.

The European Union gives a great importance at the waste sector and aims to create a unitary strategy, which has the same principles at the level of all the member states regarding the structure and the quantity of the resulting waste, the collection methods and on the costs required by treating them.

In Romania, it exists at the national level a strategy for the waste management, which contains detailed specifications for all the types of waste, having as aim to reduce and prevent the waste generation, to improve waste recycling and qualitative valorization, to reduce the environmental impact of the waste, to improve the existing national databases, to encourage the green investments in

this field and to promote a closer and a better collaboration between the local public administration authorities, the companies and the population.

Regarding the e-waste, one of the most important activities is the recycling and reusing the materials. Thus, the natural resources are conserved by a lower consumption, the emissions of greenhouse gas are reduced and it is encouraged the remanufacturing process, especially for glass, plastic, even some metal components, sometimes with lower costs comparing to the initial process.

Regarding the solid municipal waste, the management activities refers to collecting waste, sorting it into categories, the transport of the waste either in special warehouses or to the companies which are processing them at transfer or firing stations. Because most of

the solid municipal waste is eliminated by land filling, the countries must manage the problems related on health and safety for people, animals and groundwater.

The European Commission created in December 2015 the „The Circular Economy Package (EC, 2015), which includes a number of proposed targets and measures beyond 2020 and in Romania this field is regulated in the “National Waste Management Strategy”, 2014-2020, elaborated by the Ministry of Environment and Climate Change. The Integrated Waste Management projects have been or will be implemented in Romania at the level of most counties, which aims to reduce waste and to improve the system of waste collection and processing, in order to protect population’s health and the environment and biodiversity.

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# Smart Specialization Concept with Some Evidence for the Regional Development in Romania

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**Abstract:** The aim of this article is to study the concept of Smart Specialization and to explore some evidences of how it is implemented in the regions from Romania. The concept refers to investments in knowledge activities and not in sectors. There are defined specific policy objectives that will have a specific impact in scientific and economic domains. The public resources that are invested in R&D have the purpose to stimulate the public-private partnerships, to foster innovations and to create a pool of knowledge and spill-overs to the targeted regions. The regions from the states from European Union need to apply RIS3 strategies for investments in R&D and innovation due to pre-existing conditions to access funds from European Regional Development Fund (ERDF). The European Commission launched an on-line Smart Specialization Platform (S3platform) to assist the members to develop, implement and compare smart specialization strategies and to offer data for national and regional authorities to identify the specific activities with high-added value to improve the regional competitiveness. Some indicators are presented to show the Romanian efforts for R&D and private innovation capabilities, the pre-identified potential for smart specialisation within the regions and some current evidence available on the S3platform.

**Keywords:** smart specialization, research&development, innovation, regional development  
**JEL Classification:** L52, O38, R11

## 1. Introduction

The purpose of the Smart Specialization concept is to support regional innovation strategies. After identifying some competitive advantages of each region, some strategies are designed to foster the development of the stakeholders and efficient resource utilization. Smart specialization is also about improving innovation structures by positive knowledge externalities and diffusing innovations through the regional economic system. The regions and European Member states need to have Research and Innovation Strategies for Smart Specialisation (RIS3) strategies for their investments because it is a pre-condition to access funds from European Regional Development Fund (ERDF).

Foray and Van Ark (2007) argue that creating true “centres of excellence” with narrow and deep specializations in a few scientific fields will create more benefits in the long term than if each individual country would have low-level expertise in many scientific fields. The author arguments that is better to choose an investment policy to support programs that will complement the region's or country's capabilities with a bigger impact in a certain area. A less effective policy means several investments in some technological fields which would not make any impact to the field or to the region. In this framework, public policies will generate a growth path by enhancing the levels of productivity and competitiveness of a region. Directed R&D and innovation investments will influence the scientific and technologic path and specialization of a region.

The purpose of Smart specialization is to invest public funds more efficient into research. After the regional strengths of a region are analyzed, it will access funding for

R&D and create a network between research entities, universities, research hubs and local business environment. The focus is to obtain specific and specialized knowledge within an area which is unique and close to the knowledge frontier of the world. The European Commission launched a Smart Specialisation Platform (S3Platform) with the purpose to assist European members to develop, compare and implement smart specialization strategies and to offer data for regions to identify activities with high-added value to enhance their competitiveness.

## 2. Literature review

In the smart specialization concept, European regions are constrained to identify specific activities, domains or technological fields where they could benefit from specific competitive advantages and they will direct regional policies to enhance and diffuse innovations in these areas. The Smart Specialization concept is the vision in which local companies can direct their entrepreneurial effort in a specific direction of innovation. Foray (2009) argues that this concept is not a form of centralized industrial policy related to some form of subsidies directed to some random sectors from a top-down perspective.

Sandu (2012) considers that the system of indicators to measure smart specialization in a region could be composed of:

- Indicators which describe the potential for RDI of a region, the current level of R&D and the level of technologic specialisation. In this case, already existent indicators consist of RDI expenditures, patents, publications, new products and technologies, RDI human resources, etc.;

- Economic indicators to find new opportunities of development of new industries based on R&D with good development perspectives measured with increasing productivity, market share, turnover, profit etc.;

- Indicators to measure the relationship and the level of cooperation between companies oriented towards R&D and other stakeholders which yield a certain number of cooperation agreements, spin-off companies, inventions, clusters, public-private companies etc.

Zaluska and Soltys (2016) analyzed the dynamics of the fields of smart specialization within the Pomeranian Voivodship in Poland. The authors identified the smart specialisation components within the region, discussed some challenges and problems which occurred during the process and made some personal observations.

### **3. The progress towards smart specialisation in Romania**

The Smart Specialisation concept is a process of discovery driven by market forces (Foray et al., 2009). In this view, the policy does not enforce a top-down approach in which economic agents are constrained to specialize ex-ante in some specific activities. The purpose is to develop a region at the highest possible level from a science and technology point of view. An entrepreneurial learning process of self-discovery will take place and specific innovations will occur. Economic agents will use the local/regional resources and they will use the benefits of networking and cooperation to gain heterogeneous social capital. Policy makers are gathering information with respect to what particular field could excel from a region,

but they are coordinating the local economic agents to create and maintain relationships for the self-discovering innovating activities. There is a certain degree of uncertainty and risk, and local entrepreneurs are motivated in finding appropriate technologies, processes, resources, products and ways to become more competitive and to be situated on the frontier of S&T developments.

Smart Specialisation is about a strategic vision for a diversity of heterogeneous and particular specialisations. The specialisation does not have specific targets but rather to stimulate the creation of new or innovative activities within a network which is by itself based on knowledge. Economic agents will find heterogeneous means of productions, processes or products by identifying particular solutions for a specific diversification. In the past, public policies were oriented in creating homogeneous research facilities of activities. The purpose is supporting advanced knowledge networks which can compete internationally on the long-term. In the smart specialisation concept, the scope is to regionally direct resources in ways that will generate specific activities that are situated on the technology frontier.

Smart specialisation requires a certain amount of flexibility to choose which innovations should be supported and which ones should be terminated. Benchmarks are needed to determine if a certain path of activities is productive or the subsidies could be wasted. The policy maker should decide if the criteria are viable and can be accomplished before the R&D investments are started. The question is if the regional actors are capable of generating spill-overs and a sustainable network and innovations. Measurable goals and objectives are needed for an efficient

evaluation of the directed subsidies. For example, is the sector of economy large enough to sustain innovations and to benefit from the spillovers from the development of the new activities? (Foray et al., 2009)

In many regions we can find a lack of resources in the R&D activities which will negatively influence the evolution of structural changes within the economy to become more innovative. Although smart specialisation is directed towards the development of the local economy and creating a pool of knowledge, the public sector should become more competitive at the international level. Local companies can become more innovative and more knowledge-oriented if they subcontract and develop public-private contracts and benefit from the spill-overs. A sustainable economic development could be obtained if the research hubs and Universities become more active on the knowledge market.

Jucevičius and Galbuogienė (2014) discussed some applications of the smart specialisation for a better understanding of the less developed regions with respect to their competitive position within an economic system:

- The fields in which a region has comparative advantage related to other regions;
- Competitive strategies targeted to enhance the heterogeneous strengths;
- A vision of improving the quality of the business sector by particular activities that will deepen the specialisation towards some technological domains;
- A local culture of innovation that will enhance knowledge generation for all the local stakeholders;
- A better coordination of concentrating all available resources from regional, national and European Union sources.

Table 1 - Indicators for the RDI progress in Romania

	2011	2012	2013	2014
Romania GDP in Current prices, million Euro *	133306	133511	144254	150358
<b>Scientific evidence</b>				
Total R&D spending of government sector as a share of GDP (%) *	0.20	0.20	0.19	0.16
Total R&D personnel and researchers full-time in government sector, as (%) of active population *	0.12	0.13	0.14	0.13
Venture capital investment as % of GDP *	0.04	0.02	0.03	0.03
Number of project for R&D activity according NABS **	9518	8394	7421	8143
<b>Spill-over in the private sector</b>				
R&D spending of the business sector as a share of GDP (%) *	0.17	0.19	0.12	0.16
Total R&D personnel and researchers full-time in business enterprise sector, as (%) of active population *	0.11	0.12	0.12	0.12
Number of patent applications to the EPO by priority year *	60	72	85	102
Number of patents granted by the USPTO by priority year *	48	-	-	-
Number of European Union trade mark (EUTM) publications *	410	394	358	475



<b>Economic impact</b>				
Innovative enterprises that received funding from the European Union as (%) of funded companies *	-	11.10	-	8.30
Innovative enterprises that received funding from central government as (%) of funded companies *	-	7.00	-	14.70
Innovative enterprises that received funding from local or regional authorities as (%) of funded companies *	-	3.50	-	3.00
Innovative enterprises that received funding from the 7th Framework Programme as (%) of funded companies *	-	2.10	-	3.20

Source: Eurostat <http://ec.europa.eu/eurostat/data/database>\* and <http://statistici.insse.ro/shop/>\*\*

The challenges for Romania are both for the R&D structure and to the business environment. Although the GDP is increasing between 2011 and 2014, the share of R&D investment for the government sector and researchers is either decreasing or remaining at a modest level. Also, the number of R&D projects and venture capital investments is remaining approximately the same. In the business sector there is no significant change of the R&D investments and number of researchers employed in the business sector. However, some positive changes are in the number of patent applications and the number of companies that received funding from the government.

Several indicators were used to measure the progress towards smart specialisation in Romania. For example, when the number of researchers is increasing in the private sector the opportunities are growing towards the knowledge output that can result, and companies are becoming more competitive. Spill-overs from Universities can be faster adapted to the local needs and the demand is created within regional companies. Private researchers will cooperate more with public entities resulting in more innovations for the

companies. Knowledge and innovation activities have particular attributes which are related to cooperation and public-private partnerships. A knowledge-based company will use more licenses and patents and will contribute more to the regional economy.

Romania has the lowest intensity in R&D from European Union and there is no progress in reaching the national R&D investment target. In the European Union there are increasing efforts of cooperation between the academic and business environment. Romania should strengthen the relationship between R&D from research facilities and the business environment in order to benefit from an increasing amount of spill-overs that will generate innovations. The increasing number of patent applications in the Romanian private sector is a sign of the innovation oriented business environment.

There are several implications from the evidence related to the link between R&D activities and business environment and several issues can be addressed:

- How to reduce the barriers in the cooperation between research centers and the private sector;
- How to increase the funding for R&D

from central and local authorities to the private companies;

- How to support the SMEs in activities for the transfer of knowledge;

- How to support the activities of R&D in the private companies;

- How to foster a culture for innovation in entrepreneurship and high-technology transfers;

- How to increase the venture capital investments and to increase the rate of innovative enterprises.

In order to improve the policy coordination of the RDI system and to boost the innovation performance, there were made several recommendations by the European Commission, within the country report of RDI for Romania in Horizon 2020:

- To create a coordinated structure for the R&D system that will increase the availability of the resources in the next years;

- To create research capacities in the approach for smart specialisation that will increase the competitiveness of regions and high-quality human resources;

- To support partnerships between Universities and business environment.

#### **4. The RDI strategy and the areas of smart specialisation in the regions of Romania**

In "Analysis and Evidence Base of the R&D&I Market in Romania" (2013) we find an exhaustive approach that uses the elements and priorities of the smart specialisation concept. The supply side is the R&D component which is measured by the degree of scientific knowledge creation. The demand side is measured by the degree of competition within an economy. There is a strong

connection between the supply and demand-side which has an economic impact to the innovation structure of the business sector.

The areas for smart specialisation which resulted from the process of selection by experts and which are found in the Romanian National Strategy for RDI are:

- Bioeconomy;

- Information technology, space and security;

- Energy, environment and climatic changes;

- Eco-nanotechnologies and advanced materials. Along with these four smart specialisations, there were identified three national priorities:

- Health;

- Patrimony and cultural identity;

- New and emerging technologies.

However, effort is made in Romania towards implementing the smart specialisation concept. The National Strategy for RDI, 2014-2020 was designed as a foresight exercise to identify the prioritization domains for investing in R&D. An important group of stakeholders and experts were mobilized to select the strategic domains and the strategic objectives for 2014-2020. In the strategy we find elements regarding R&D and innovation issues, from the structures of investments regarding the smart specialisation priorities, to interests of public priorities and to domains of research. The specialisation priorities are seen as a process, which were identified and selected in steps by the stakeholders and experts, according to the opinions of the specialists from the fields of interest.

The Romanian strategy for R&D and innovation, 2014-2020 includes several important components:

- The vision for Romania for 2020;
- The selection of the important and limited domains for Smart Specialisation and the fields of public interests;
- The Plan for the implementation of the Strategy and the Operational program for R&D and innovation;
- The governance model for the implementation of the ecosystem for R&D and innovation.

### **5. Areas with potential for smart specialisation in the Romanian regions**

Smart specialisation refers to investments of knowledge resources in activities, not in sectors. The priority of investments is to enhance specific activities to gain more productivity levels. Although sectors are important, the focus of R&D is on activities so that local companies will become more competitive. Within the production process, local companies are creating spill-overs and positive knowledge externalities to generate more local scale economies for the particular activities. The priorities are related to the existing facilities of production with respect to innovative activities which are seen as complementary. A combination of innovative processes with the regional strengths will enhance the sustainability and competitiveness of the regional economy. The purpose of the smart specialisation is to improve the unique characteristics of the regional economy, to integrate in the local structures and patterns of growth. The purpose is not the imitation of other regional structures, processes, production facilities etc.

Within the "Analysis and Evidence Base of the R&D&I Market in Romania" (2013) are identified the unique particularities and

assets of each region, the competitive advantages are emphasized and regional actors and resources are brought together in a vision of excellence. The basis for the future smart specialisation resulted from workshop discussions related to the sectors and research themes for each region. Several indicators related to the number of companies, income and added value were benchmarked to other member states from European Union. The regional context and the potential of innovation is also analyzed, and a profile of development was created for each region of Romania. The following perspectives on the areas of target for smart specialisation were considered by the selected experts:

Table 2 - Potential of smart specialisation in Romanian regions

Region	Sector	Innovation	Smart
Center	Energy	Biomass	Automated combustion system for biomass derived from energy plantations
North-East	Textiles	Technical Textiles	Multifunctional textiles for protective garments
South-Muntenia	Automotive	Research nuclei	Materials Experimental studies Modernised components; Fabrication technologies; Passive Safety.
Bucharest- Ilfov	Electronics	Mechatronics	Intelligent marine energetic systems
	Machinery and Equipment	Agricultural machinery	Intelligent Agriculture
	Textiles	Technical Textiles	Technical textiles for health, automotive, Agrofood
South-West Oltenia	Tourism	Danube Strategy	Danube Tourism, tool for Regional Economic Development
West	Agro Food	Biotechnology	Detection and quantification of genetically modified organisms in agricultural products and food
	Energy	Renewable Energy	Solar power for use with irrigation systems
	IT	IT for non IT	Personalised IT business solutions

Source: <http://www.poscce.research.gov.ro/uploads/programare-2014-2020/final-report-12-aprilie.pdf>

## 6.The policy goals and some evidence for Romanian regions from the Smart Specialisation Platform

On the smart specialisation platform available online, data for public investment priorities for innovation can be accessed for regions across Europe. Smart specialisation is both a policy objective to constrain the regions to invest and a process to assist policy-makers to identify the activities and domains for potential specialization (Foray and Goenaga, 2013). The government has the challenge to vertically choose the policy

objectives regarding the technological domains of interest. The contradictions may appear between the allocation of resources from the market and the technological activities which are publicly funded. However, this policy is about combining the intervention of the R&D resources with the activities and the fields identified by the private sector.

The principles of policy objectives for smart specialisation can be described as: (Foray and Goenaga, 2013)

- A non-neutral policy;
- A process of entrepreneurial discovery;

- A process of interaction between policy-makers and the business sector;
- The intervention is oriented towards activities;
- Changing priorities in time;
- An experimental component of the policy;
- The areas of interventions are revealed within a process.

The goals of the policy are oriented towards: (Foray and Goenaga, 2013)

- supporting the emergence of new activities that could generate important innovations and spillovers;
- a diversification of the regional structure of the economy by generating new possibilities;
- fostering a diversified structure of clusters and networks with a critical mass.

*Table 3 - Some evidence for Romanian regions from the Smart Specialisation Platform*

Region	Sector	Policy Objectives	Date of Source
North-East	Textile	Other	2014
	Healthy Ageing, Healthy Living and Tourism	Industrial biotechnology, Nature & biodiversity, Social innovation etc.	2014
	Agro-food	Public health & security	2014
	Biotechnology	Other	2014
	Energy & Environment	Sustainable innovation	2014
	ICT and ICT - creative media	Digital transformation and Cultural & creative industries	2014
Bucharest-Ilfov	Tunable graphene plasmonics, metamaterials	Advanced materials	2014
West	Eco building & eco construction	Sustainable innovation	2012

Source: <http://s3platform.jrc.ec.europa.eu/map>

It beyond this purpose of this article to discuss the exhaustive data corresponding to each variable: Sector and Policy objectives. However, all the Romanian regions which have data from the smart specialisation platform can be seen here: North-East, Bucharest-Ilfov and West. The tool has been fully upgraded in 2017 and data are permanently updated by the national and regional authorities and the stakeholders within the entrepreneurial discovery process. Comparing

the data from Table 2 with data from Table 3 we can find several differences between the potential of the regions and what was uploaded on the S3platform. For the North-East region we find that Textiles sector is developing its potential, but new sectors occurred in Agro-food, Biotechnology etc. Bucharest-Ilfov has potential in Electronics, Machinery equipment and Textiles but in Table 3 we find developments for Tunable graphene plasmonics and metamaterials. In West region

we find potential for Agro food, Energy and IT and the uploaded data on S3platform shows developments for Eco building & eco-construction. However, on the platform is not specified if the regions did not update the data for their sectors of activities, the available data could be incomplete, different paths of innovation were discovered by the market forces or projects are currently under development.

Future research could be done to analyze the economic development related to scientific domains and policy objectives and how all the Romanian regions will future develop in relation with the policy objectives.

## 7. Conclusions

Romania is currently a modest innovator with low R&D results and spillovers

to the private sector. An increased public spending in R&D is needed which means a bigger budget from GDP. The regions are developing with respect to knowledge creation and innovation when public-private partnerships are created, which means fostering the private demand for research and scientific oriented activities. Romania has made progress towards smart specialisation by defining the fields of specializations within the Romanian National Strategy for RDI.. There is a weak relationship between Universities, Research Hubs and private sector which limits the flow of knowledge, from R&D to innovation. Comparing the data for the for smart specialisation in the regions from Romania show differences between the pre-identified potential and the current development of the economy available on the S3platform.

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## Entrepreneurship: from education to innovation

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*Abstract: There are a lot of factors, both internal and external (social, financial, technological, political, legislative, demographic) that influence the activity of a company. Its adaptability and flexibility are decisively influenced by the entrepreneur's education, but also by the group he leads and by the innovative spirit that exists at the organizational level. The local and global information flows provide support for the development of businesses that once seemed impossible. The entrepreneur has the capacity to take major risks, to identify opportunities and to ensure the company's sustainability. The paper aims at presenting some aspects regarding the current level of entrepreneurship and the way in which education and innovation influence it.*

**Key words:** entrepreneurship, innovation, education, entrepreneurship factors, growth

**JEL Classification:** L26

## Introduction

The entrepreneurial environment is influenced by external and internal barriers, and therefore the process of identifying and recognizing thereof represent important elements that can help foresee unfavourable situations and find innovative solutions to overcome such situations and create conditions that can help improve performance. The paper aims at presenting some aspects regarding the current level of entrepreneurship and the way in which education and innovation influence it. The authors intend to show the way in which experiences lead to the acknowledgement of some present opportunities and the finding of innovative elements that facilitate the sustainability of the company's activities. Also, some causal elements that ensure the success of a business by emphasizing the entrepreneurial, technical and managerial abilities are presented. These are influenced by the quality of education and the way in which the organization creates training conditions for its employees.

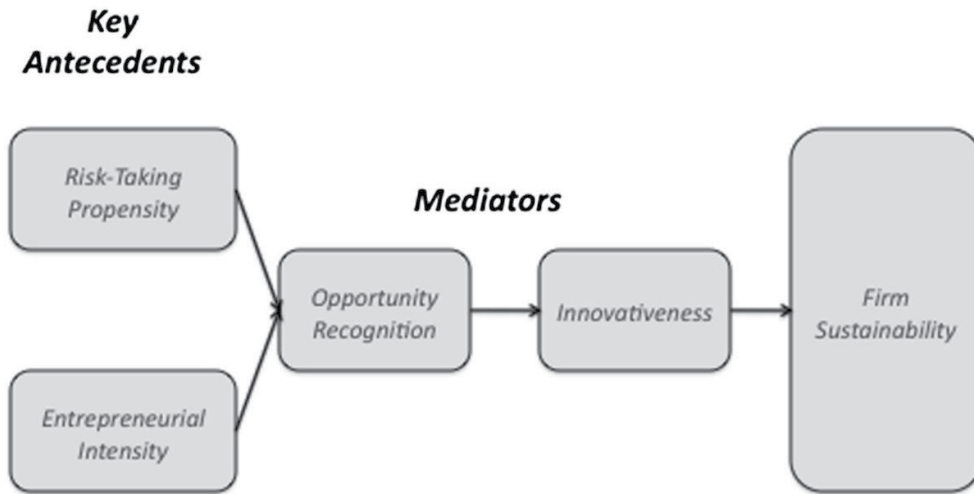
Entrepreneurship: from risk taking to the company's sustainability

Entrepreneurs are looking for the meanings of their attitudes towards business and

act either by the desire to create profit or by being enraptured by the beauty of the business. The impediments that arise in the entrepreneurial initiative are also related to the fear of failure, but also to the lack of entrepreneurial education. It is obvious that entrepreneurship is built on access to information but also on using thereof where it is needed. However, "fear of failure can have a profound effect on entrepreneurial choices. While commonly viewed as an obstacle to be overcome, some anecdotal accounts also describe the motivating power of fear of failure, highlighting it as a key to their success." (Morgan et al., 2016, p. 1).

There are some key elements that contribute to the entrepreneur's evolution and company performance. The process of acknowledging the opportunities and innovation represent components that contribute to the company's sustainability and these relations are outlined in the model presented by Gundry who highlights the relationships that exist between: key antecedents and mediators and firm sustainability (Fig. 1).

Figure 1. Entrepreneurial Transition from Risk to Firm Sustainability (Gundry, 2014, p. 8)



Identifying opportunities also means taking responsibility, and this implies the entrepreneur's independence and ability to make important decisions at crucial moments. Taking risks in the development of a business, but also the optimal management of the resources, represent elements that define, by excellence, the spirit of a successful entrepreneur. At the level of an economic system we can talk about a variety of visions of entrepreneurs and that is why such diversity sets forth the conditions for the emergence of a successful business. In this respect, "Entrepreneurs for whom autonomy or independence is a dominant motive for becoming self-employed probably have limited growth ambitions for their business. Entrepreneurship is likely to be a vehicle to serve the freedom-related needs of the individual as it enables a lifestyle in which one can decide oneself on goals, methods, and time scheduling. However, autonomy-driven entrepreneurs may still increase diversity in the economy just because they do things in their own way." (Hessels et al., 2008, p. 326).

On the other hand, the competition regulates the functioning of the economic systems and eliminates from the game ideas that have no finality.

In the formation of an entrepreneur, one must take into account the economic, cultural and social factors which decisively influence the entrepreneur's evolution because they are closely linked to the values of the individual and of the society in which he evolves. The personal values and values required by the society may be compatible or contradictory. Starting from here, any entrepreneur can shape a type of behaviour that will facilitate business development or, on the contrary, lead to failure. Systems of personal values are also accentuated by the vision, the mission and the attitude of those who assume the entrepreneurial attitude. The social and economic context in which an entrepreneur emerges influences the set of abilities he builds, but, equally, his behaviour in various situations. We can also talk about situations where an entrepreneur can change decisively the company (Facebook - Mark

Elliot Zuckerberg, Alibaba - Jack Ma, Google - Larry Page and Sergey Brin), influencing the education of its members and the value sets at the system level. But most entrepreneurs are influenced by the socio-economic environment that shapes them. We can therefore speak of two categories of entrepreneurs, context creators and entrepreneurs as members of some contexts. In fact, "many factors affect entrepreneurs' decisions to pursue a new business instead of accepting a job in paid employment. Leaving aside personal considerations, this study categorizes factors affecting entrepreneurship into three groups: Social, cultural, and economic. Although these factors interact among them, this section presents their effect entrepreneurship separately. Socially, the structure and social development of a country is an important factor, as well as culture. Strictly focusing on social issues, literature often refers to Schumpeter's (1934) social climate. This concept involves the sociological, economic, and institutional climate of the society where entrepreneurs perform their activity. These factors include social values, training, economic freedom degree, and institutional quality. Therefore, a suitable social climate stimulates entrepreneurial activity, enhancing economic growth and job creation." (Castaño et al., 2015, p. 1496).

The entrepreneurial attitude can also be influenced by the sense of ownership and the social status that an individual desires. The variety of entrepreneurial activities that appear in the evolution of the society offers the entrepreneur an increasingly important role, contributing from the perspective of society to important economic results for it. It is certain that profit is not only a reward for assuming uncertainty, but it is also a mean

through which the individual defines his social position on the one hand and provides services to the society by performing social responsibility activities. The availability of resources, the number of competing companies using limited resources, the status of the entrepreneur, represent factors that contribute to the process of encouraging / discouraging the progress of society.

Entrepreneurship becomes a source of innovation and change for a dynamic society, encouraging economic competition. However, "innovative entrepreneurship" is a related phenomenon. Mayhew et al.(2012) use this term when they focus on innovative entrepreneurship in contrast to replicative entrepreneurship. Whereas the latter refers to business start-ups based on (copy of) old ideas, the innovative entrepreneur provides new products or services. These authors argue for the need for research that takes account of innovative entrepreneurship to a greater extent, in particular in studies of entrepreneurship education." (Støren, 2014, p. 799).

Knowledge and flexibility are elements that support the economic competition through which poor areas can be developed at the level of a society. Entrepreneurship is closely linked to the development of small and medium-sized enterprises (SMEs), these are actually the key nodes in the development of an economy. Businesses based on copying an old idea are often doomed to fail and this is the reason why the innovative entrepreneur has the opportunity to offer new products and services because his activity is based also on a consistent research component where entrepreneurial education plays an essential role. We can talk here about the evolution from old-market products to new

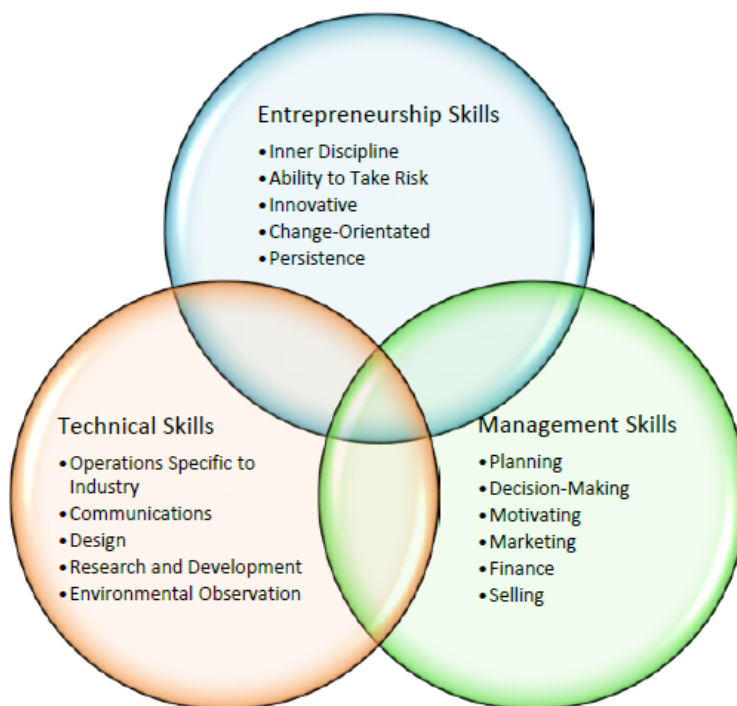
markets-new products. This leap is also facilitated by the education that the company is committed to ensuring both its employees and its clients. In the current context, it is imperative that the individual is concerned as well about his own education because self-knowledge plays an important role in finding optimal educational solutions.

The risks taken by an entrepreneur concern job instability, investing his own financial resources without guarantee of recovery, developing business on a market where competition is hard and the lack of qualified labour. In addition to the micro-economic factors, we must also take into account the fact that the entrepreneur's activity can be discouraged by macroeconomic factors: the dynamics of the economy, the evolution of inflation, the increase of the interest rate, the lack of facilities related to the access to capital, the burdensome legislation, etc. Knowledge is becoming a driving force that contributes to economic growth, and the process of generating knowledge is also connected to the way in which educational policies are implemented at macroeconomic level. "However, as knowledge became the driving force underlying economic growth and performance, a new and significant economic

role for the university emerged. However, just undertaking scholarly research in basic disciplines did not suffice in generating sufficient knowledge to contribute to economic growth and performance. The emergence of the entrepreneurial university was the need to create new interdisciplinary fields and research areas devoted to providing solutions to specific societal problems and challenges, along with a series of mechanisms and institutions dedicated to facilitating the spill over of knowledge from the university to firms and non-profit organizations." (Audretsch, 2014, p. 320).

The entrepreneurial abilities (inner discipline, ability to take risk, innovative, change-oriented, persistence), the technical abilities (communications, operations specific to industry, design, research and development, environmental observation) and the managerial ones (planning, decision-making, motivating, marketing, finance, selling) may be the result of an educational system in which entrepreneurship universities, the business environment and the state are the main actors that facilitate the consolidation of such abilities. The system of abilities presented by Cooney is self-evident (Fig. 2).

Figure 2. The system of abilities (Cooney, 2012, p. 7)



In designing a business, a key role is held by the identification of consistent business ideas followed by the creation of a business plan in which the market, legislation and resources occupy a very important place. The decisions of the companies to develop businesses are influenced by external and internal barriers. The availability of qualified workforce, lack of competition, the economic climate and the legislation contribute decisively to the success of a business. Anticipating economic evolution, analysing the demographic trend, foreseeing some unfriendly moments, represent elements that make the difference between the successful entrepreneur and the entrepreneur who fails in business.

Without any doubt, "...a decision by a firm to grow its business is initially influenced

a range of External Barriers (or influencing factors). Concerns about matters such as the availability of skilled labour, lack of competition, favourable government policy and economic climate, supportive legislation and easy access to markets all contribute to an entrepreneur / management team deciding to grow the business." (Cooney, 2012, p. 2). It is not enough just to identify internal and external barriers in building a favourable entrepreneurial environment, but it is essential to find ways in which entrepreneurs can act on these barriers either by minimizing their effect or by cancelling them. It is obvious that each of these barriers appears in a wider socio-economic context in which each stakeholder influences the emergence of such barriers (Fig. 3). Here's how: the labour market

is influenced by social conditions, and also by the demographic trends, competition is dependent on the number of actors and their activity, the quality of government policies is determined by the political decision-makers, but also by the force of the civil society. The economic environment is the result of several factors (legislative facilities, access to markets, social issues, etc.). We mentioned here some of the external barriers and whose effect can be minimized or how they can be

eliminated. Identifying the internal barriers can help avoid situations that are sharpening the entrepreneurial climate. Knowing the motivational factors, individual behaviours, determining the quality of funding, identifying organizational issues, analysing the causes that lead to decreasing of the level of sales and scanning the poor environments are elements that can help minimize or eliminate internal barriers.

Figure 3. Presentation of external and internal barriers (Cooney, 2012, p. 2)



### Entrepreneurship and education

An important role in entrepreneurship is played by education in creating the conditions for the manifestation of the entrepreneurial spirit. We cannot develop an entrepreneurial spirit if education remains only at the discretion of some individuals who are in charge punctually of educational activities. This is about creating an educational system

in which individuals and institutions must behave based on very clearly defined rules that are stable at the level of some strategic plans. Not knowing the following: demographic developments, economic dynamics, global society trends represent elements that can jeopardize business development strategies and, consequently, educational policies. The education cult must become a rule both at the level of individuals and at the level of



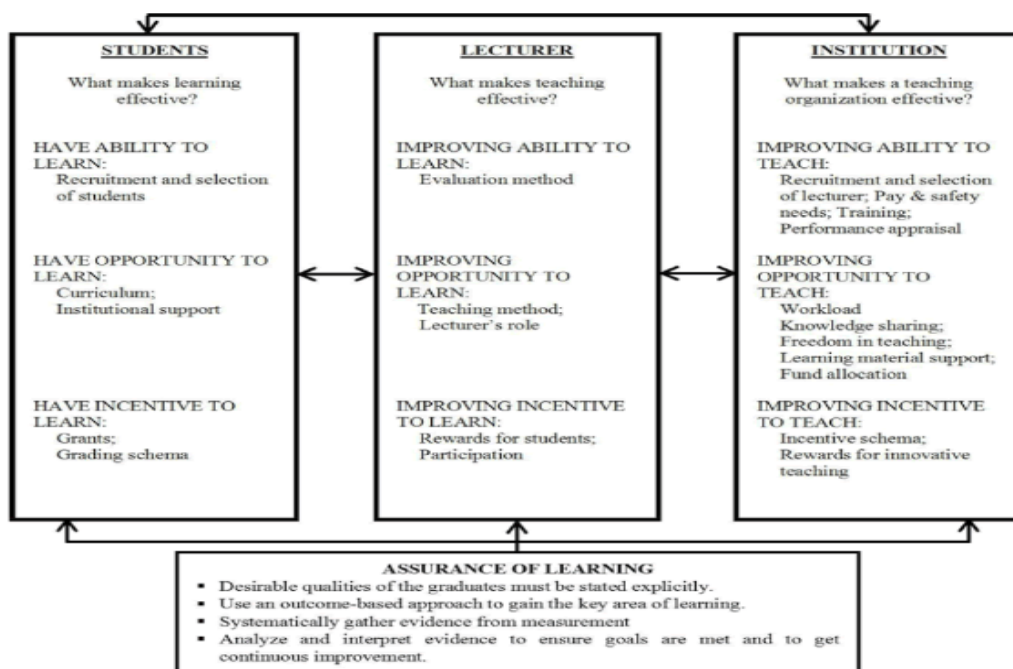
society, because in the age of total computerization, individuals will work in networks with a dynamism difficult to anticipate, and therefore making real-time decisions will impose on one hand access to information, and on the other hand a permanent education. Future society will require decisions making (often in real time), and therefore software packages must be created in relation to the requirements of those who use them, and user education must enable the possibility to use such products. The role of universities has increased in relation to the evolution of economic forces contributing to the dynamics of the organizational performance. It is obvious that the accumulation of knowledge is not done for their thesaurus but for their use in improving economic activities by educating the workforce and creating a favourable innovative environment.

The concept of an entrepreneurial university (i.e. Stanford University, University of California, Cornell University) becomes a reality of the modern world where there are areas of research that offer solutions to the economic and social problems of the society. "The role of the university has continued to evolve along with the underlying economic forces shaping economic growth and performance. The centuries old tradition of the Humboldt University, with its guarantee of freedom and independence for scholarly inquiry resulting in the celebration of knowledge for its own sake remained prevalent as long as economic performance was largely shaped by factors that had little to do with the activities of universities—physical capital and unskilled labor." (Audretsch, 2014, p. 319). Facilitating institutions are established and such institutions manage the relationships between universities and the business

environment. The framework for effective learning for entrepreneurial education involves a set of connections between institutions, teacher, and student. The process of improving the skills becomes a rule at the level of the three entities (institution, teacher and student). Ensuring learning conditions is not limited to the university, it becomes a general framework of development at the level of society where the individual, family, firm, university, state are catalysts of the educational response (Fig. 4).

"Students today increasingly recognise that in the current economic climate most jobs are rarely "for life". The world of employment is changing, "permanence and longevity of employment are no longer a significant feature of career paths: traditional career paths have disappeared" (Fallows and Steven, 2000). This widely held view has led to speculation that there will be continuing growth in self-employment as a career option for individuals at different stages in their life. Some of this growth may be due to significant changes in the work environment such as: continued organisational layering; increasing globalisation forcing the creation of leaner, more flexible and adaptable businesses that require fewer employees." (Collins et al., 2004, p. 455).

Figure 4. The framework of effective learning for entrepreneurship education (Ghina et al., 2015, p. 7)



Self-accomplishment, the possibility of high earnings, being independent, hiring family members can be factors that stimulate the entrepreneur's interest in his work. On the other hand, elements of dissatisfaction can counterbalance the already fragile balance of his behaviour. Here he is dealing with business failure, pressure of responsibility, career insecurity, and costs related to the use of experts, ethical deviations from other competitors, tensions in family relationships, health risks.

Social acknowledgement occupies an important place in the set of motivating elements that emphasize the entrepreneur. More than generating profit, entrepreneurship is related to risk assumption, uncertainty, and incomplete information regarding the

influence of conjunction factors which can lead to great failures. Entrepreneurial learning means the critical analysis of one's own experiences and also the experiences of others, implying the shaping and reshaping of some activities. It takes place "without direct influence of rationally planned objectives and involves relatively high-levels of risk and uncertainty. The key issue here is that learning is not only embedded in the firm's existing activities but entails shaping and reshaping of these activities, gaining legitimacy, acquiring and exploiting social interactions. The issue of entrepreneurial learning and education is the need to recognise and develop more reflective, experiential forms of learning, emphasising the importance of the reflective practitioner, the significance of

critical events, and the importance of learning as a social practice.” (Higgins and Elliott, 2011, p. 4)

### Conclusions

Starting from the analysis the authors undertook in this paper it results the importance of education for the emergence of successful entrepreneurs. Visionary skills make them identify new opportunities in creating products and services and find new ways to promote and distribute them. The innovative spirit becomes not only a necessity, but also a reality both at the level of laboratory research and at the level of the means of promotion. We can actually speak of a learning enterprise and, at the same time, of an enterprise

that innovates. Education and innovative spirit are in symbiosis both at the individual level and at the company level. Taking risk is a necessary but not enough condition to achieve optimal results. There are several ingredients needed to be successful, and these are: education, innovative spirit, organization and motivation of employees. As source of innovation and change, entrepreneurship is becoming a key element in the development process, contributing to raising the awareness of the importance of small and medium-sized enterprises. Entrepreneurial spirit represents a dynamic process and not a static phenomenon, and therefore coordination, innovation, optimal allocation of resources are necessary conditions for the consolidation of performing companies.

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# Successful Entrepreneurs: Mark Elliot Zuckerberg

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**Abstract:** The high importance of the entrepreneur's role in society has been widely recognized by most economists as well as by politicians or decision-makers. The path to entrepreneurial success is not to be found only in books and business reports, but also in the country's culture, entrepreneurial experiences, entrepreneurs' characteristics, skills, personalities and behaviors, creativity and work. The aims of the paper are to define the concept of successful entrepreneur and to present the case of Mark Elliot Zuckerberg, one of the famous American entrepreneurs. The research is based on a case study. The paper demonstrates that Zuckerberg, the co-founder of Facebook, has succeeded in becoming one of the most successful entrepreneurs worldwide.

**Keywords:** entrepreneur, Zuckerberg, Facebook, company

**JEL Classification:** L26

## 1. Introduction

The high importance of the entrepreneur's role in society has been widely recognized by most economists as well as by politicians or decision-makers. However, not all entrepreneurs are successful and many of them fail due to various causes such as lack of resources or bankruptcy (Van Praag, 1999; Van Praag, 2005). This is why identifying and analyzing the persons who have successfully started a new business has constituted a constant preoccupation for researchers and businessmen in the past decades. The successful entrepreneur has become a topic of interest in various domains such as psychology, sociology or business (Hornaday and Aboud, 1971; Sexton and Bowman, 1985; McClelland 1987; Bouchikhi, 1993; Brockhaus and Horwitz, 2002; Sorensen and Chang, 2006; Wadhwa et al., 2009; Mukherjee, 2016).

As an agent of change (Casson, 1982), the entrepreneur is acknowledged as the key element of a company in achieving business success. The path to entrepreneurial success is not to be found only in books and business reports, but also in the country's culture, entrepreneurial experiences, entrepreneurs' characteristics, skills, personalities and behaviors, creativity and work (Ray, 1993; Thompson, 2004; Westhead et al., 2011; Brännback and Carsrud, 2016).

The aims of the paper are to define the concept of successful entrepreneur and to present the case of Mark Elliot Zuckerberg, one of the famous American entrepreneurs. The research is based on a case study.

The structure of the paper comprises three sections. The next section presents the literature review. The third section displays the case of Zuckerberg, the co-founder of Facebook. The paper ends with conclusions.

## 2. Literature review

There is a variety of theoretical approaches about the concept of successful entrepreneur that has led to several definitions. A successful entrepreneur can be considered as:

- "one who is able to generate individual and community wealth by developing a business asset, and can do this repeatedly under a variety of circumstances" (Lyons et al., 2007, p. 103).
- "good leaders, who have clear mission, purpose and values to be shared and sold to others" (Makhbul, 2011, p. 117).

In other words, the success of an entrepreneur is measured by the success of its firm (Bosma et al., 2000) and is "synonym to efficiency and firm growth" (Tasnim et al., 2013, p. 46).

Successful entrepreneurship is differently evaluated in the business literature. However, the most important indicators of success or performance measures are the following (Van Praag, 2005, p. 6):

- "The more personnel an entrepreneur has under his control, the more successful he is.
- The longer an entrepreneur survives as such, the more successful he is.
- The higher the profit of the entrepreneur's firm, the more successful the entrepreneur is.
- The higher self-employment earnings are, the more successful the entrepreneur is."

In essence, successful entrepreneurship "captures the interaction between the entrepreneur and the business, social, environmental and community relationships" (Nandram and Samsom, 2006, p. 2). It also requires specific skills such as technical skills, managerial skills, entrepreneurial skills, and

personal maturity skills (Lyons et al., 2007). Without any doubt successful entrepreneurship represents a function of the entrepreneur (Kuratko, 2017).

### 3. Mark Elliot Zuckerberg, a successful entrepreneur

As one of the youngest self-made billionaire in the American history, Mark Elliot Zuckerberg is a computer programmer and a successful Internet entrepreneur (Hisrich and Kearney, 2014). He was born on the 14th May 1984 in White Plains, New York. His father is Edward Zuckerberg, a dentist, and his mother is Karen Zuckerberg (ex-Kempner), a psychiatrist. Mark grew up with his sisters: Donna, Randi and Arielle. He attended Ardsley High School in Ardsley, New York, Phillips Exeter Academy in Exeter, New Hampshire, and Harvard University in Cambridge, Massachusetts, in order to study computer science and psychology.

Since his enrolment in the middle school, Zuckerberg has begun using computers and building software programs. When he was 13 years old, he designed "a basic computer network for his family that he called ZuckNet" (Lüsted, 2011, p. 20). In 2004, he launched Thefacebook.com from his Harvard University dormitory room, an online directory that allowed the connection of people through a social network at colleges. On its home screen people could read: "You can use Thefacebook to:

- Search for people at your school.
- Find out who are in your classes.
- Look up your friends' friends.
- See a visualization of your social network." (Kirkpatrick, 2011, p. 30)

In a very short period of time Thefacebook became a huge business success. In 2010, after adding its 500-millionth

member Facebook was valued at around \$25 billion and Zuckerberg was named "the most influential people of the Information Age" by the Vanity Fair magazine (Deutschman et al., 2010). In six years he proved to have "a profound, unprecedented and unimaginable impact on American culture, especially its youth, and is now spreading Facebook's tentacles worldwide and into every aspect of our lives" (Alef, 2010, p. 1-2). One year later, the value of Facebook "was pegged at \$100 billion, which can be linked to vast financial speculation but also the company's collection of user data over a seven-year time span" (Scholz, 2013, p. 2). In 2016, Facebook reached \$27.638 billion in revenue and \$10.217 billion in profit (Fortune, 2017). In 2017, "one in six people on the planet are on Facebook each day" (Galloway, 2017, p. 103).

"Facebook's ultimate success owes a lot to the fact that it began at college" (Kirkpatrick, 2011, p. 39) where people socialize more easily, but, in fact, Zuckerberg's role has been decisive. At the heart of this exceptional achievement lays the genius of Zuckerberg, a gifted American entrepreneur. As an Internet entrepreneur Zuckerberg is characterized by the following attributes (Alef, 2010; Kirkpatrick, 2011; Ho You Gio and Yazdanifard, 2015; Mishra and Mishra, 2017):

- visionary,
- intelligent,
- risk-taker,
- passion,
- hard-working,
- creative,
- flexible,
- courageous,
- energetic,
- responsible,



- charming;
- team-builder,
- innovative,
- good listener,
- perseverant etc.

Zuckerberg is not only a successful businessmen and entrepreneur, a passionate technologist and a creative leader, but also an active philanthropist and a responsible father. He is the co-founder of Facebook, a global platform that is placed at the core of a technology ecosystem and has created a huge infrastructure for games, advertising and social interactions.

## Conclusions

Successful entrepreneurs play an important role in today's society. The hyper-competitive global business world promotes entrepreneurs that have successfully started and developed new businesses. The paper provides the theoretical framework to better understand the meaning of the concept of successful entrepreneur. Also, it shows that Mark Elliot Zuckerberg, the co-founder of Facebook, has succeeded in becoming one of the most successful entrepreneurs worldwide.

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## The view of the citizens of Bucharest over the concept of smart city

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**Abstract:** The concept of smart city has become more and more important and “useful” in recent years because of the negative effects on the environment and human health. Thus, researchers have sought to find solutions to improve housing in increasingly urbanized cities. This article brings to the reader a certain structure in terms of analyzing the concept of smart city, as well as the dissemination of the most important factors to consider when a city moves from its original state to a sustainable and intelligent governance of the city. Smart City Governance aims to create new forms of human collaboration by using ICTs to achieve better results and more open government processes. This article highlights the fact that public administration and intelligent governance is a matter of complex processes of institutional change and we should recognize the political nature of the visions of socio-technological governance.

**Keywords:** smart city, sustainable management, urban city

## Introduction

More than 50% of the world's population lives in cities (UN, 2015) and this presents different challenges for managing a city: fighting environmental damage, managing waste efficiently, managing resources in a natural sustainable way, infrastructure improvements, etc. Cities should provide protection and be more eco-friendly, but also integrate people with different backgrounds (ethical, religious, socioeconomic). Charles Landry (2006) said local politicians and city leaders should not strive to have the best city in the world, but for the world. Thus, the more a city answers and solves social problems on a broader scale, the more efficient and intelligent it will be. On the other hand, city managers ought to realize that only technology or digitalization by itself will not make a city smarter: building a smart city requires a political understanding of technology, a process approach to manage the emerging smart city and a focus on both economic gains and other public values (Previtali and Bof, 2009).

In this paper we aim to observe the reaction of the citizens of Bucharest to the concept of smart city, as well as the solutions proposed by them for a better governance of the city.

## Theoretical background of the research

After the first characterization of the smart city concept by Hall et al. (2000), in the years to come, a vast literature has emerged, each author attempting to characterize the concept of smart city from the perspective of his profession, but a generally accepted definition still does not exist (Cocchia, 2014). So, the concept of smart city is a configuration of

urban and metropolitan contexts based on a set of common features related to improving the quality of life of citizens, given that urban development policies are often addressed by urban managers dealing with the problems of a smart city.

After analyzing the characteristics that a smart city should have in its structure, we find common dimensions: the technological dimension, based on the use of infrastructure; human dimension, based on people, education and knowledge; institutional dimension, based on governance and policies (Nam and Pardo, 2011). We could add here that there is also an ecological dimension or environmental dimension, based on the efficient use of natural resources. In an overcrowded city, it is important to maintain the green spaces and not damage precisely the source from where we get our clean air. By the integration of technology with natural environment, a Smart City is considered an effective one in its processes in every activity in order to achieve sustainable development, safety, security, health and all the necessary actions necessary for its inhabitants with the aim to increase the quality of life in its essence. According to one author, Mohanty (2016) considers a Smart City to be „a place where traditional networks and services are made more flexible, efficient, and sustainable with the use of information, digital and telecommunication technologies, to improve its operations for the benefit of its inhabitants. Smart cities are greener, safer, faster and friendlier.” We can outline from his definition that the construction of a Smart City it's a long process which involves the public management to act as a system which implements procedures and be mindful and innovative. The approach to smart cities has evolved through

an emphasis on one or more elements that favor the digitization process. However, only integrating all areas of intervention based on ICT contribution can help cities achieve sustainable economic growth and better quality of life for urban stakeholders (Anthopoulos and Tougountzoglou, 2012). The increasing number of smart cities initiatives can be linked to the integration of new technologies, in particular ICT and data management, extending from the acquisition of basic data to data processing and interpretation (Kirwan, 2015). The technological elements needed to implement intelligent initiatives include the implementation of necessary hardware (sensors, wireless equipment, etc.) and software (artificial intelligence, expert systems, etc.) to create a "physical-digital environment of intelligent cities" (Schaffers et al., 2011, p. 435; Li et al., 2015). Organizational and management concerns are not to be neglected when talking about IT initiatives; they are the key to success or can lead to a failure in IT projects. (Pardo, T. A & Gil-García, J. R., (2005); Scholl, H. J., et al. (2009).

### Research objectives and methodology

The purpose of this paper is to highlight the opinion of the citizens of Bucharest on the concept of smart city in accordance with the reality in the city of Bucharest. More specifically, this research has looked at four areas that are directly linked to the main goal: how do citizens quote the city's qualities/ services, how satisfied they are with these services, which solution they think is the most appropriate or in agreement with the reality of the city of Bucharest and what solutions are proposed for a better management, efficiency of the city. To see these results, we chose the questionnaire method, the number of those surveyed being 52, with different education

background and ages. Thus, we consider that the significance of the research is assured from a scientific perspective and that the responses and conclusions that are generated are relevant for the whole population in Romania, both academic and non-academic readers. Another fact that supports this statement is the correct distribution of the research sample, from a statistical perspective, taking into account multiple criteria: age of the citizens, level of studies, employment status. There is a limitation of the research from the point of view of the number of respondents which completed the questionnaire.

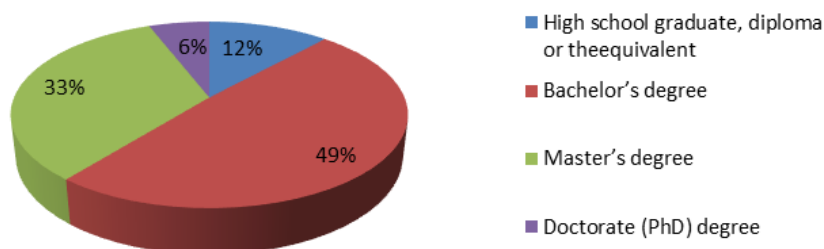
### Results

The first area to be analyzed within the current research refers to the age of respondents. This criterion is needed in order to see the perception of citizens depending on their age difference. From all the people questions, 6 persons are within the age of 19-22 years old (11.5%), the second category is with the age between 23-26 years old with 24 persons questioned (46.1%), the third category is within the age between 27-30 years old with 12 persons questioned (23.07%) and the fourth category are the persons over 30 years old with 10 persons questioned (19.2%). The second category and third category are the most relevant with the current research. Further, we will analyze the opinions of the respondents over few important questions and compare the categories to see if there are differences or share the same mentalities. Between the respondents there are a handful of persons which reside outside of Bucharest. We will see below the opinions of their cities.

We will see in the first chart, the difference from the education status perspective of our respondents. As we can see from the

Chart 1. Education level of citizens of Bucharest

**What is the highest degree or level of school you have completed? If currently enrolled, highest degree already received.**



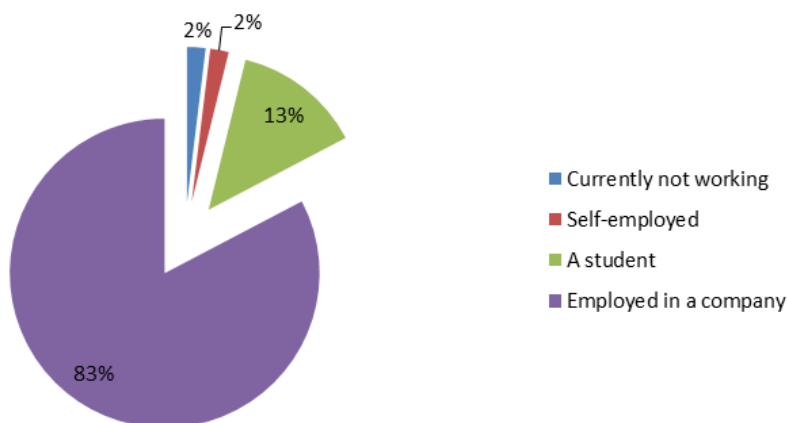
Source: own processing of collected data

above chart, 49% of respondents have the bachelor's degree, 33.3% completed a master's degree, 11.7% have a high school diploma or equivalent and 5.9% completed the PhD studies.

After we have determined that almost 90% of the respondents have at least higher education, we will analyze, in the following graph, their occupational status.

Chart 2. Employment level of citizens of Bucharest

**Employment status**



Source: own processing of collected data

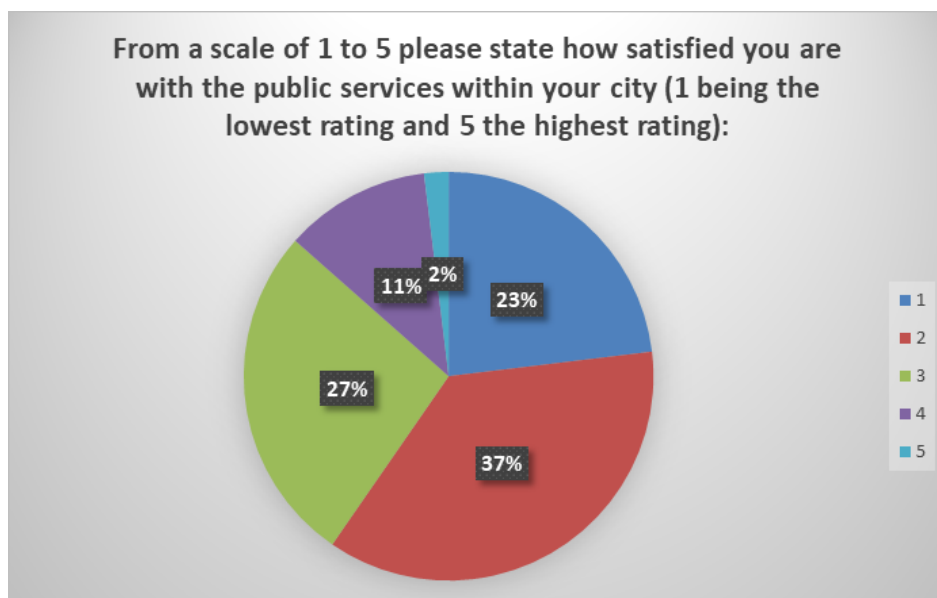


43 of the respondents (82,6%) are currently working in a company, 7 respondents (13.2%) are currently enrolled for superior studies and for the rest of categories we have 1 respondent (2%) who is self-employed and 1 (2%) who currently is not working. One can see that, for the present analysis, there

is a positive development towards higher education.

In the continuation of the study, we will proceed to analyze the qualities of the city of Bucharest from the perspective of the citizens who live here.

Chart 3: The level of satisfaction of the public services (different cities)



Source: own processing of collected data

The results are related with the whole package of public services from the point of view of accessibility, efficiency, ease of usage, etc. in terms of the drivers arising from the literature. The results show a strong level of cohesion in how people approach smart cities. 12 respondents (23%) rated their city with 1, being the lowest grade, 19 of them (37%) rated their city with the qualifying 2. We can see from the chart that more than half of the respondents are unsatisfied with the public services provided by their cities. 23% of the persons questioned are neutral, that means that they have little to complain about

the public services provided by their cities, 11% said that are very satisfied with the public services provided by their cities and 2% rated their cities with the grade 5, that means that their cities have nothing to improve on their public services and reached the concept of smart city.

In the next chart we will take in consideration the answers of persons which are from Bucharest. Therefore, from 52 persons questioned, 37 of them are from Bucharest and we divided the respondents into 3 age categories (23-26 years, 27-30 years and over

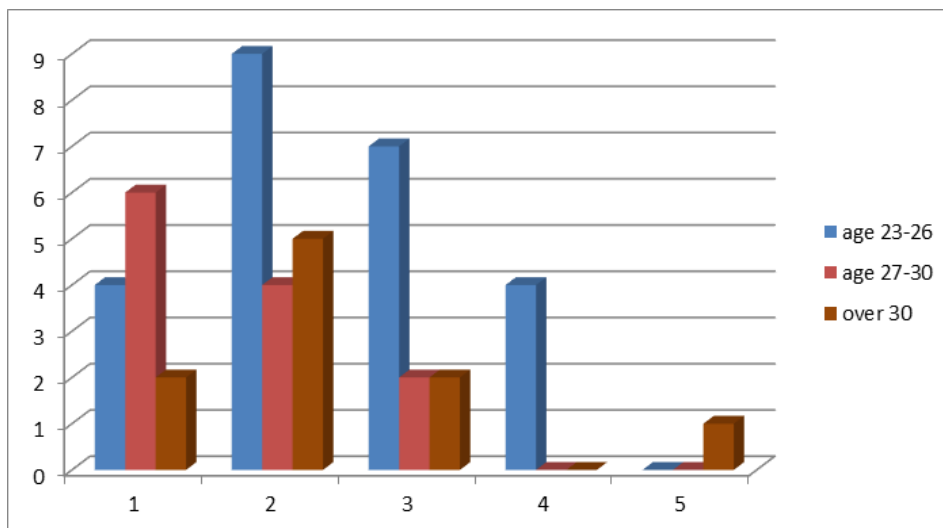
30) to compare the degree of satisfaction between them. The question is From a scale of 1 to 5 please state how satisfied you are with the public services within your city (1 being the lowest rating and 5 the highest rating).

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Chart 4: The level of satisfaction of the citizens of Bucharest



Source: own processing of collected data

As we can see from the charter, more than half of the citizens are unsatisfied with the public services from Bucharest (21% of the respondents graded with 1 and 37% of the respondents graded with 2). No person from 19 questioned graded the city of Bucharest with 5 and just 2 persons (10%) graded with 4. This raises concerns regarding the efficiency and the public management handled by the local authorities.

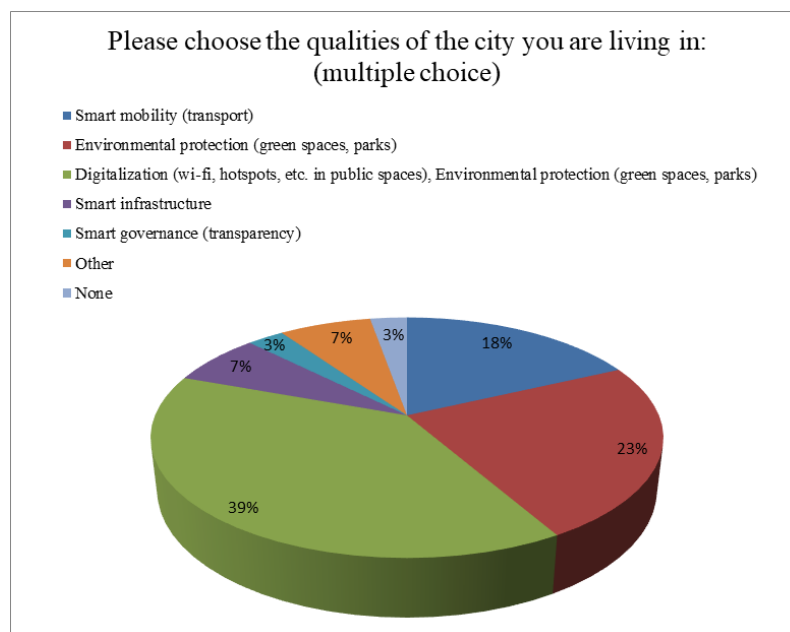
From the above chart we can see the dissatisfaction of the respondents in regard with the public services from Bucharest. Neither of the 12 persons questioned rated the public services provided by the municipality of Bucharest with 4 or 5, whereas more than half are totally unsatisfied by the public services provided by the municipality of Bucharest. In total from the 12 people with the age between 27-30 years old from Bucharest, 10

persons chose to give the lowest ratings for the public services and 2 persons are neutral.

Although, there aren't many people questioned in "over 30" category, we can see certain similarities between the category of 27-30 years old and this category. Neither of these 2 categories chose to grade the public services with 4 or 5. More than half of them are unsatisfied and 1 person chose to grade with 3.

If we make a comparison between the third charter and the last one, we can see a level of dissatisfaction with the public services from cities where people are from. Further in this paper we will analyze the qualities found in the cities where people questioned are from, and afterwards, more specifically from Bucharest.

Chart 5: Multiple choice : qualities of the city where the people questioned are from

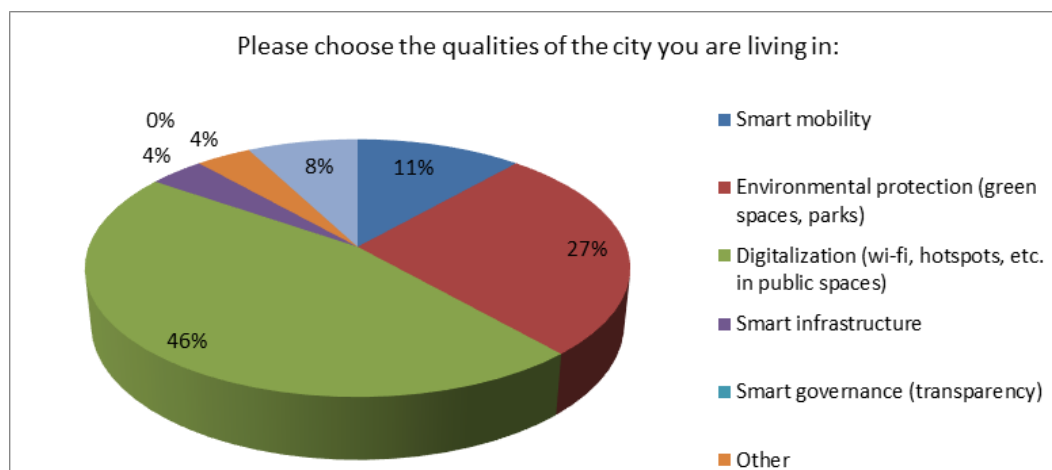


Source: own processing of collected data

In the above chart, another question was to choose qualities of the city the respective respondent is from. It had multiple choice criteria, so as we can see more of them, precisely 39% of them, stated that the city he/she is from has the digitalization quality, 23% of them said, that in their opinion, local

authorities handled well the environmental issue. We know that this is a problem in urban areas, so we will see below how the citizens of Bucharest chose the qualities that this city have. Smart mobility was the third quality chose by the respondents with a percentage of 18%.

Chart 6: Multiple choice: qualities of the city of Bucharest (23-26 years old)



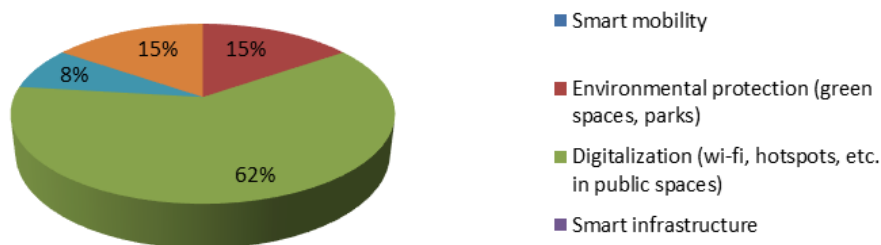
Source: own processing of collected data

The differences between the 5th chart and this one are very slim. The first quality chosen by the citizens of Bucharest, in their

opinion is digitalization with a percentage of 46%. The second quality chosen is environmental protection with a percentage of 27%.

Chart 7: Multiple choice : qualities of the city of Bucharest (27-30 years old)

From the list below, what solution do you think it's the most appropriate to implement in your city?



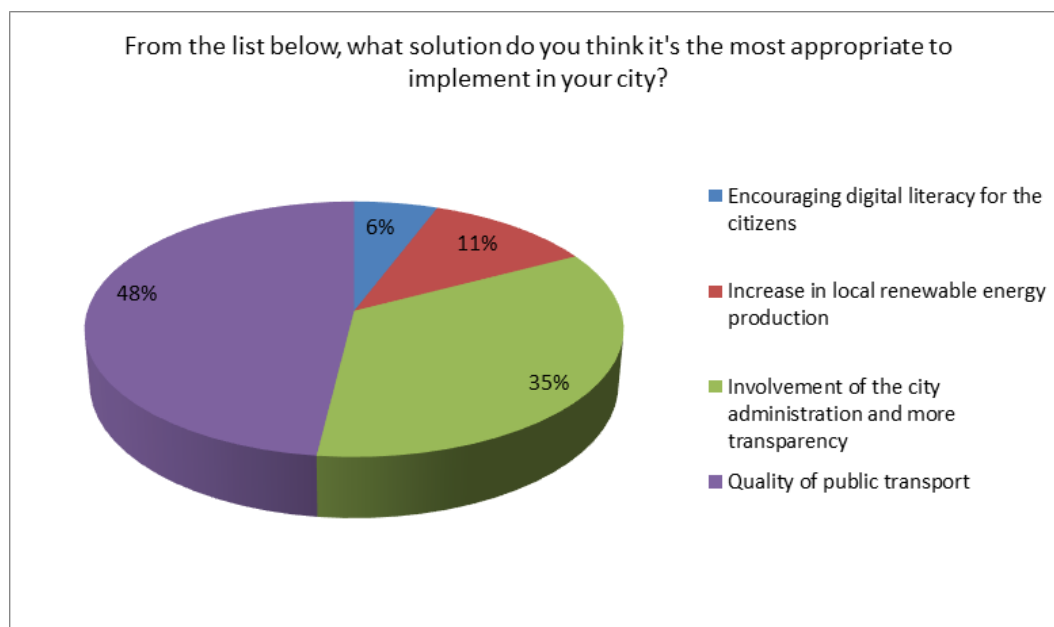
Source: own processing of collected data

Because of the age appropriateness, there aren't differences in the choices of the respondents. We can see a pattern here between the citizens of Bucharest that the only quality that Bucharest has is digitalization.

We will not add a third chart to this question as there are few respondents with the age over 30 years old and we can assume that doesn't bring a conclusive analysis to our research.

For a better view of the opinions of the people questioned, we will add a third important question to our paper imported from the questionnaire: From the list below, what solution do you think it's the most appropriate to implement in your city? We will see first how the 52 persons responded to this question, and then we will make other 3 charts dependable on their age, but not their location.

Chart 8: Respondents choosing the most important quality that should be implemented in their city

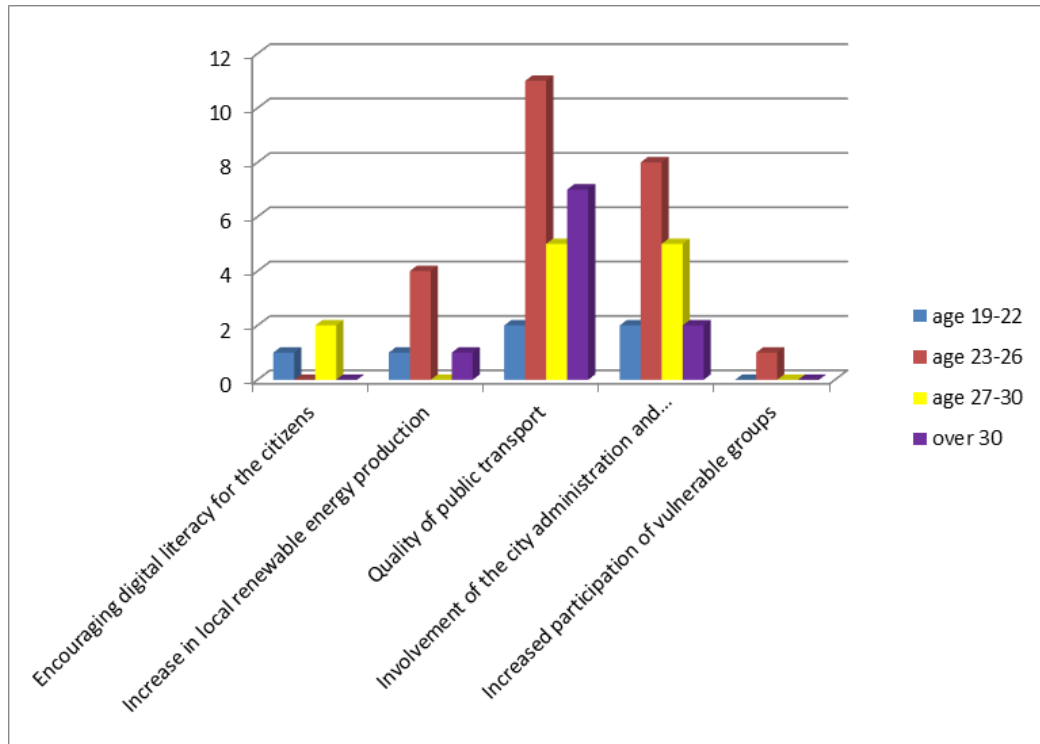


Source: own processing of collected data

48% of them said that public transport should be improved and upgraded. 35% of them consider that the involvement of the city administration should have more transparency in the communication with its citizens. As we saw above, digitalization is

already a quality in cities of Romania, so only 6% of them consider that city's administration should encourage digital literacy for its citizens. The 6% of 52 persons questioned are the ones with a high school diploma or a bachelor's degree.

Chart 7: Multiple choice : qualities of the city of Bucharest (27-30 years old)



Source: own processing of collected data

The category with the age between 19 and 22 years old said that it's important to focus on the involvement of the city administration and have more transparency and at the same time it's important to upgrade the quality of public transport.

We can see a difference between the first category with the age between 19-22 years old and the category of 23-26 years old. 60% of them consider that the city administration should get involved in upgrading the quality of public transport, but as a second choice, 24% of them say that local authorities should focus more on increasing the renewable energy production. To be in alignment with other countries who are distributing their attention to alternative resources, many considers that we also need on doing so.

50% of the people questioned consider that the public management and local authorities need to be more involved in their communication with the public. Unlike the other 2 categories, here we can see a major difference in the mentality of adults – they put more importance on the effectiveness which should be dealt the communication with them – either it is on digital networks or face-to-face, people should get easy access and be dealt their problems fast, because many of them said they have to get one day unpaid from work in order to resolve their issues with public authorities/administration.

It's understandable that many people chose to implement in their city the public transport. The city of Bucharest has the highest percentage of congestions taking into consideration other big cities in Europe. Many of the respondents said that there isn't a schedule of the trams/buses, all the public transport either we talk about subway or buses are

full of people at peak hours and the people questioned said they're always late because they have to wait for another bus/tram/subway to arrive when has more space and safe for them to travel to their destination.

From the charts above, we can see from the questionnaire that most of the respondents stated that there should be an improvement at the public transportation level. We can assume that by increasing the quality level of transportation, more people would leave their personal cars at home and take the bus instead. Another category that should not be neglected is the involvement of the city administration and more transparency. The people questioned agree that institutions should have a better relationship with its citizens.

## Conclusions

In researchers' opinion, cities are the social vital component of societies. Successful cities attract investments, businesses and people who can put in practice new ideas and innovation resulting into growth and prosperity. As the UN forecasted a few years ago, cities are only going to be more crowded and if we don't act and manage the natural resources with alternative resources that are healthier for us, we will not proceed on the path of sustainability; on the contrary, we will face social and ecological challenges. In order to manage and govern territorial systems, we have to overcome the traditional solutions and go forth by making the city an intelligent one. A smart city does not mean just a label attached to it, it has a deeper meaning in improving the quality of life, a strong attention to sustainability, combining innovation with technology and rising to the



potential where the approach to the problems are long-term solutions. In this paper it is presented not empirical research and a practical perspective. We saw that the level of satisfaction of public services in the cities of Romania, especially in Bucharest are unsatisfactory, marked by the people questioned with 2 (37% overall, see chart 3), from a scale of 1 to 5, where 1 is disappointment towards the public services and 5 very pleased with the public services provided by the city' administration. Also, we can conclude from the

charts that many people would like to see an improvement of the public transportation. By having this quality in a city, the city's managers can be assured that people would leave their personal cars at home and would travel by bus/tram/subway more frequently. This will result in fewer traffic jams in the city center. Finally, the links and hypothesis emerged in this paper can be further investigated, as sustainability management is a popular topic in the recent literature about management and intelligent government of a city.

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## Restructuring versus reorganization

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**Abstract:** Through this paper I try to delimit the two notions of “restructuring” and “reorganization” in order to make them easier to comprehend. For this to be possible, I will make a brief introduction to these concepts and I will try to delimit them to some extent.

The notion of “restructuring” can be defined as the process that has the purpose of reducing the size of the enterprise by reference to the number of employees and the number of hierarchical levels in the organizational structure.

The main reason a company resorts to the restructuring process is diminishing spending, increasing profits and increasing efficiency.

**Key words:** Restructuring, reorganization, social context, profitability.

### **1. Introductory notions about restructuring and reorganization.**

Under the conditions of the current market economy, the characteristics of the political context and especially the economic and social context in which the enterprise operates are constantly influencing the solutions adopted in the design of the organizational structures, which, in the developed countries, undergoes a chain of transformations and is constantly considering a number of new elements that present great diversity.

The objectives of increasing efficiency and profitability bring to the attention of managers responsible for logistics activities and managers at the top level of the organization, the concept of restructuring. In the literature, synonyms are used as follows: reducing size and reducing the number of levels of the organization.

The notion of "restructuring" can be defined as the process that has the purpose of reducing the size of the enterprise, by reference to the number of employees and the number of hierarchical levels in the organizational structure.

The main reason a company resorts to the restructuring process is diminishing spending, increasing profits, and increasing efficiency.

In addition to the many benefits that a company has due to restructuring, the process may also have some adverse consequences, for example, the company takes the risk of losing certain jobs, which results in a decrease in employee performance.

We can say that, nowadays, more and more enterprises are pursuing the argumentation of competitiveness, in the conditions of a society in a constant state of uncertainty

and based on a rapid and dynamic evolution. Such an example is an enterprise's strategy to gain an edge over other competitors in the field in which it operates by delivering in a short and good time the products and services it offers.

In the literature and in the context of the developed countries, some concepts on how to restructure enterprises are highlighted. For example, the centralization or decentralization of decisions should not be absolutized or maintained.

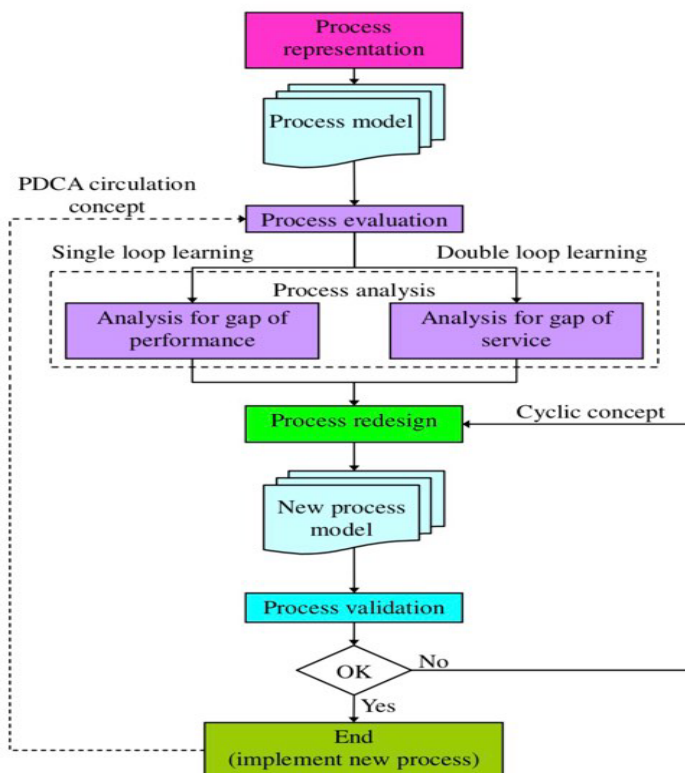
In my opinion, the economic situation in Romania in recent years, as well as the transition period we are going through, should generate a number of obligations on the part of the state to avoid or even eliminate certain determinants of imbalances, such as inflation of unemployment.

There are some roles in the transition period, among which we mention the most important, namely: the restructuring of the productive systems of the industry, according to the situation in the industrially deserted countries; ensuring the competitive structures of the goods and services market, eliminating the dominant monopoly positions of some producers; promoting competition and ensuring the conditions for its development; determining the degree of concentration of production.

Unlike the notion of "restructuring", the concept of "reorganization" may also refer to the re-profiling of the company.

Internally, in Romania, the notions of "restructuring" and "reorganization" are often erroneously mistaken. It is imperative to mention that the reorganization procedure presupposes the existence of a plan, well-established limits and can not be achieved without the concurrence of the courts of law or the syndical judge.

Fig. 1 Restructuring process



For example, the restructuring of a legal entity may occur when the company has a fulminating upward path and the original structure can not effectively manage the company's overall interests. Therefore, restructuring must not necessarily occur in the context of a crisis, but may be necessary when the company has developed, and the development of the initial structure is necessary.

Restructuring can also be generated by other causes, such as changing ownership or ownership structure, company division, major changes - bankruptcy etc.

## 2. Restructuring - the most used way of organizational and managerial change after 1989 in Romania and other countries.

Managerial restructuring should be used primarily to shelve the business from potential economic failure as a way of preventing and eventually re-establishing the business. In other words, the restructuring is one that has a preventative role and should not be used only when the business / society is in a deadlock. As such, managers should choose the way to restructure when they have strong indications that the business

is approaching an unfavorable threshold, without waiting for the state of insolvency to emerge. I made this point, which is essential in my opinion, because at national level, the solution to restructuring is the one that is used when it comes to insolvency, being a means of “treating” rather than prevention as it should.

According to a study by Harvard Business School, the term restructuring has been known in the world since the 1970s, when it was successfully applied to takeovers, mergers, sales, divisions, split-ups, financial recapitalization, and private transactions to glory renowned companies such as: Toshiba, General Electric, Motorola, Lockheed Martin, IBM, LTV, Siemens and Zenith.

We can define restructuring as redirecting one or more aspects such as repositioning the market to be more competitive, surviving in an unfavorable economic climate, or balancing the company to reorient itself to a new business direction. In other words, restructuring involves a wide-ranging process that extends to different sides of a company - purchasing, personal, economic, etc.

Romanian experts, insolvency practitioners and not only think that in Romania, managers choose the way of insolvency, without taking into account other variants, which, in most cases, could save the company they manage from insolvency. It is well known that the restructuring is divided into three categories, namely: portfolio and assets, capital and management of the company, any or all of them, applied correctly in each case, may have as a consequence saving the company from insolvency.

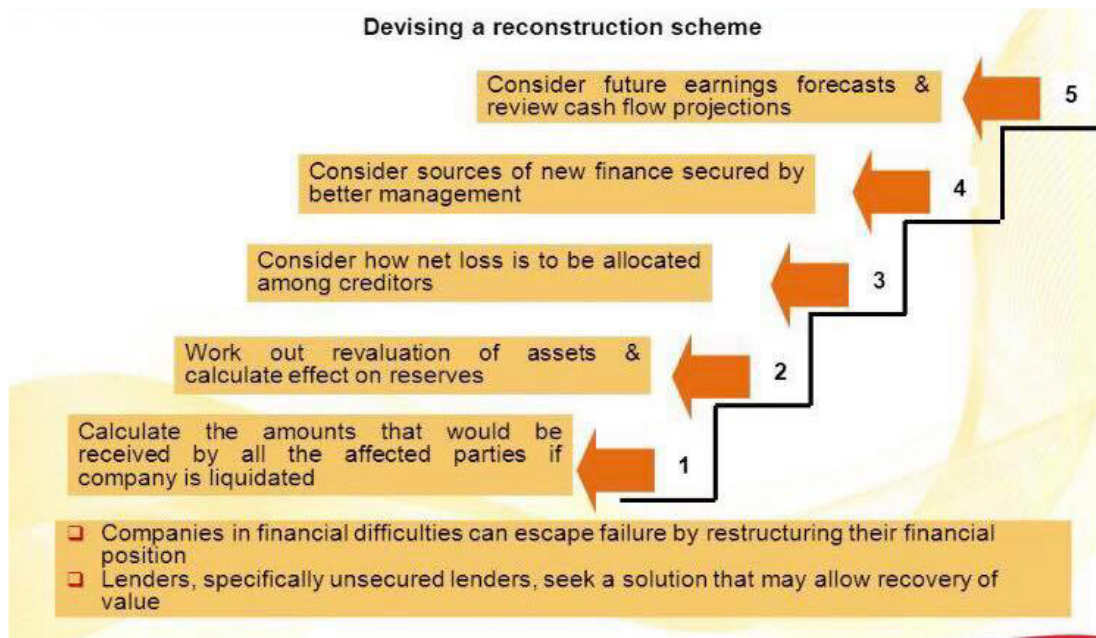
A well-thought-out restructuring designed to help the company in a deadlock has as its main purpose the reduction of financial

losses while at the same time diminishing the tension between debt and equity holders, in order to facilitate a prompt resolution of a difficult situation.

A restructuring that is inconsistent with organizational culture can very easily demonstrate that it is just a form change that is often hindered and interrupted by a category of circumstances that depend on the way in which the enterprise is structured and the relationships which is carried out inside it.

In order to be able to find us in the presence of an effective organizational restructuring process, we need to get to know and understand both the organizational culture of the enterprise and the factors that have important significance that is imprinted in the development or that determine the development of the organizational culture.

Fig. 2 Corporate Reconstruction and Reorganisation



### 3.The reorganization of a company

The reorganization process of a company should aim to improve its operating scheme in order to achieve positive results. It is a rather complex process because it is not enough to reorganize only certain segments of the company.

When we want to use such a process, we need to have well-trained managers in the company so that they can make the best decisions and resort to the best ways to improve these decisions.

In order for our reorganization to be successful, we need to analyze several types of processes to optimize the company's business.

In Romania, the process of reorganizing state-owned companies or having a majority state-owned capital are among

the Government's strategic priorities. The Government wants to apply this process especially to state-owned companies that have as their object the modernization of the infrastructure in the country. The reorganization of these companies aims to increase the efficiency of traffic and modernizing the conditions of public transportation.

Most companies rely on the reorganization process for two reasons: the first concerns the growing development of society and technology that forces companies to keep pace with them, and the second reason is the financial difficulty of the company at a time.

The goal that every manager proposes when using this is to save the company and recover it for outstanding results. An analysis and financial diagnosis of the company is automatically imposed and it is only then that



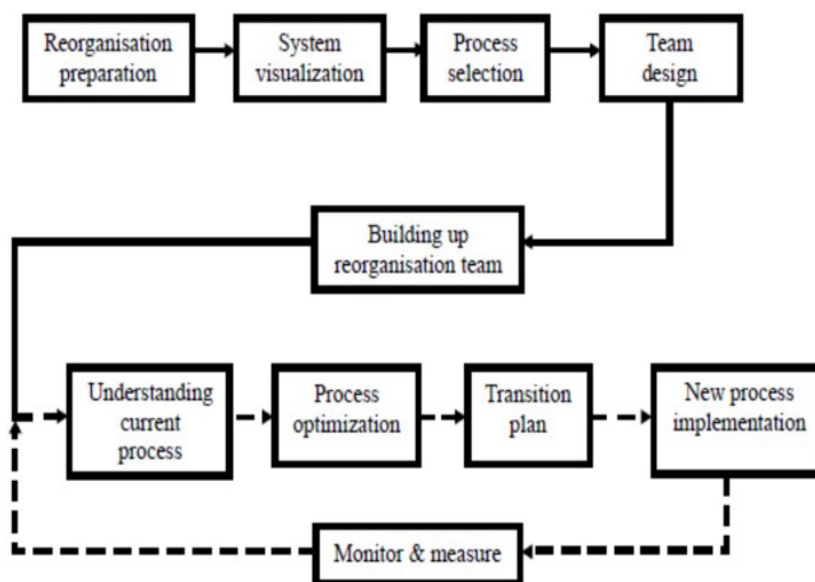
the decision can be made whether or not a reorganization process can be implemented.

In order to meet consumer wishes and to remove competition, companies have to adapt to the market's evolution.

The expansion of the company implies an adaptation to the new market

requirements in this way, it is necessary to reorganize its organizational structure and to adapt to the current needs in order to give the desired yield.

*Fig. 3 Model of the process of reorganization*



According to a study carried out in this field, it was demonstrated that a complete reorganization of the organizational structure of a company is necessary, not only a partial reorganization being sufficient to achieve the objective pursued.

Extremely important in the development of the company are besides internal resources, theand external ones, the secret of success is the perfect combination of those two.

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When we refer to the term of reorganization in the field of management, we must not confuse it with other terms, such as: bankruptcy, judicial reorganization and legal insolvency.

#### 4. Study case

There was a railway company few years ago, named Reva. The main discover they made was to identify a restructuring need in order to dynamize and adapt the company's core business on a new highly competitive market in Europe. In addition, a strong managerial assistance was required due to the company's upgrading.

Therefore, the initial stage in the process of Reva Simeria restructuring consisted in the organizational diagnosis. In this stage were evaluated the issues Reva encountered in terms of productivity and organizational climate. The purpose of this diagnosis process was to highlight the best restructuring method taking into consideration the further effects of modernization.

The second stage was initiated by establishing an organizational modernization plan, adapted to the organizational new context. In these circumstances, the plan was designed that way to allow the improving positioning phase into the new market and increasing the production processes' efficiency.

The third stage consisted in analyzing the first two stages' results based on a set of decisions adopted by the team that implemented the project of organizational diagnosis. Concluding, there was resulted a total productivity increasing, system inefficiencies were significantly reduced and the organization gained a higher flexibility, with no competencies loss.

The subsequent plan of organizational change brought about:

- A new set of values and principles of work
- Increasing the weight of external customers for repairing wagons and rolling stock

- Investing in new projects to modernize production according to the European model
- Streamline the production team and the team management
- Ensuring a strong leadership that supports and inspires change

#### 5. Conclusions.

Due to technological, cultural, scientific, economic and political changes, organizations have to abandon obsolete ideas and outdated processes and adopt new ones that are in line with current market demands.

If so far the basis of the actions of a company were the principles of Adam Smith, which said that industrial activity could be fragmented into simple, separate activities, now organizations will have to adapt to the post-industrial era requiring unification of operations, resulting in a unique process and efficient.

Organizations must implement certain tactics to ensure sustainability and long-term profitability. This can be done through plans, objectives and planning that will lead to the achievement of the proposed results and the improvement of the structural organization.

It can be noticed that the manager or, as the case may be, managers are responsible for the success or failure of a business. Proper diagnosis and choosing the best way to revitalize the company are the essential requirements to achieve the desired results.

Most of the time, when talking about a restructuring in the business environment, most people think that they will be fired, though the two notions are not synonymous. We can say that, in the case of organizational restructuring, it can still take place, as well as layoffs.

In my opinion, I can say that there is no need for an economic crisis for a company to undergo a restructuring process.

The restructuring process can be seen as a process of reorganizing the company. Its

purpose is to make the company more profitable and much better organized.

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