



Sustainable Development GOALS 2030: Challenges for South and Eastern European Countries and the Black Sea Region

Proceedings of the
15th International Conference of ASECU



Organized on the occasion of 100th anniversary of the
University of National and World Economy

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SEA REGION

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Editors: Valentin GOEV & Grigoris ZAROTIADIS

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Three Seas Initiative Countries and Their Competitiveness in Europe

Bogdan Wierzbinski¹

ABSTRACT: The paper shows regional characteristics of three seas area in terms of defining competitive advantage of the whole region and its countries through development of relationship from the north to the south of Europe and changing their approach to a competitive paradigm of this area. The scientific discussion undertaken in this paper is related to internal resources as of ICT and human resources development (and its involvement in science and technology – measured by HRSC) as well as innovativeness. Regional strategy should be focused on knowledge-based economy giving possibilities to fast development of this area. This gives opportunity to fast progress of the region with central location in Europe which generates great opportunity to strengthening accumulated resources and in the nearest future gives opportunity of becoming a hub between east and west in Europe.

Keywords: regional development, regional competitiveness, evolution of economics processes.

JEL: F23, O11, O19.

INTRODUCTION

The Three Seas Initiative was launched in 2015 on the initiative of presidents of Poland and Croatia for establishing cooperation in the fields of energy, transport, digital communications and economy. The boundaries of the region are designated primarily by the coastlines of the three seas: the Adriatic Sea (in the south-west), the Baltic Sea (in the north) and the Black Sea (in the south-east). The range of the region is determined not only by geographical boundaries, but also by shared historical experience and similar economic and geopolitical conditions of the countries in this area.

The region includes 12 Central European countries (112 million people). The declaration of these countries of 23 August 2016, signed in Dubrovnik, facilitates cooperation in the field of supra-regional projects, as well as cross-border cooperation between countries. Twelve countries constitute a large endogenous potential which is used to a limited extent in shaping the socio-economic development of the region.

Analysis of the literature on the subject indicates the links between the increase in the level of intellectual capital and the economic growth of individual countries. Economic growth is usually measured by changes in gross domestic product, while intellectual capital is determined by many factors, the selection of which (in the research aspect) depends on the type and direction of the analysis.

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In this study, three categories were used as measures of intellectual capital potential creating the ability to build competitive advantage and competitiveness of countries (Szajt, 2013, pp. 144-145): - number of employees working in Knowledge-Intensive Services - KIS, which are directly related to the creation of business innovations based on technological changes in the areas of new concepts of services, new client interface and new services delivery system (Hertog, 2000, p. 495) and importance of knowledge intensity in the development of knowledge based economy. Human resources for science and technology - HRST, technology has significant importance in raising the competitiveness of countries, it is synonymous with the survival and development of economies, therefore HRST is important from the perspective of the country's characteristics and its ability to build competitiveness (Chou et al., 2008). On the other hand, the innovative activity of a society inhabiting a given area (country) is usually measured by the number of patents submitted by residents registered by the European Patent Office.

THE EVOLUTION OF ECONOMIC PROCESSES - FROM THE INDUSTRIAL ECONOMY TO THE NEW ECONOMY AND KNOWLEDGE-BASED ECONOMY IN TERMS OF DEFINING COMPETITIVE ADVANTAGES OF REGIONS

The economy is primarily a material, technological, political, legal-organizational and socio-civilization category. It consists of both the real sphere and the sphere of regulation, covering a variety of phenomena and processes related to economic activity.

The growth of the economy is referred to the real sphere of the economy which includes the material base of production along with natural resources, population and changes in its structure as well as manufactured production and consumption goods. However, the term "economic growth" includes only the increase in the volume of production and consumption goods and services, i.e. certain production factors and means of meeting needs. The development of capitalism has shifted research over " the nature and causes of the wealth of nations" from a family household to a capitalist company appearing in the form of various types of enterprises, thereby shifting emphasis on the driving forces of multiplying entrepreneur profits and domestic production - the wealth of nations, i.e. long-term economic growth, as one should capture it in modern economic language.

The research on the growth of the economy breaks down the emphasis on micro and macroeconomic determinants of growth, they can also refer to various scale of economic processes, such as a country or its individual regions, the state and society. When using the term economic growth, we usually refer it to the national economy. Economic growth may

also be referred to the group of countries distinguished by various criteria, such as the European Union or even the entire global economy (Woźniak, 2004, pp. 9-10).

The development and foundation of the knowledge-based economy is directly related to the growing importance and dissemination of new information and communication technologies (which could be used to manage mass society using software and computers (Bell, 1973, p. 344)), services and building an information society as well as the approach to acquiring knowledge of the necessary competing processes (Lozano-Platonoff, Sysko-Romańczuk, & Moszoro, 2004, p. 87). Information technologies are very close to creativity (Mitchell, Inouye, Blumenthal, & National Research Council (U.S.), 2003, pp. 27-28).

However, economic changes such as innovations related to the absorption of technological solutions (diffusion of innovations) would not be possible or their spread would be unsatisfactory if not for the quality of human capital. The microeconomic approach to KBE considers knowledge as a factor of competitive advantage (Kołodko, 2002, p. 155). The discussion about the character of competitiveness should be carried out by defining the phenomenon leading to the creation of the enterprise and its development capabilities, as a competing entity in the volatile environment (Kozłowski, 2011, p. 29). Global changes in the flow of information and the approach to running a business influenced the competitiveness of knowledge-based economies, in which more and more often virtual solutions, mainly related to information (and its management), were created than conventional ones. Generally, it can be concluded that computers and electronic communication have enabled the emergence of virtual organizations and virtual chains (Franke, 2002, p. 94).

Summing up, it can be concluded that competitiveness can be achieved by generating value resulting from the provision of innovative solutions based on high technology sectors more efficiently than competitors in a unique way, distinguishing a company or industry on the market.

THE DEVELOPMENT OF INFORMATION TECHNOLOGIES AND INTELLECTUAL CAPITAL IN THE IMPROVEMENT OF COMPETITIVENESS

The development of information and communication technologies (ICT) has an impact on the growth of Gross Domestic Product (GDP). Studies on this issue, initiated in the second half of the 90s of the twentieth century, emphasized the increase in labor productivity (as well as highlighted the importance of ICT in industry as well as macro- and micro-scale. The subject of research was also the contribution of ICT to the convergence of developing and highly developed countries. With the development of technology, labor performance (productivity)

increases, which in turn increases the efficiency of management processes, measured by productivity. Many studies characterize the positive impact of ICT on strong profit growth and economic development of highly developed countries (Piatkowski, 2006, pp. 39-40), (Oliner & Sichel, 2002). On the other hand, transition economies are characterized by a significantly lower return on invested capital in ICT solutions (Dewan & Kraemer, 2000, p. 552), (Pohjola, 2001). Adequate knowledge resources gathered through improving the efficiency of information processes play a special role in the process of adapting to changes of a competitive environment. They increase the company's possibilities in terms of adaptability and innovativeness of companies as conditions for survival in the market and achieving a competitive advantage.

However, it should be emphasized that ICT is not something that was started 30 years ago. The development of ICT was initiated in the 19th century, starting from reproduction and collecting documentation, in which, for example, a typewriter helped. The appearance of calculators and data processing methods (1883 - Charles Babbage's work on the differential machine "calculator of the time", 1887 – an American Herman Hollerith patented a calculating machine using punched cards as a data storage medium). Also, the revolutionary appearance of a telegraph that enabled sending information over long distances has caused a "reduction" in the distance and rapid, as it was at that time, flow of information. The introduction of these innovative technical solutions has had a significant impact on the way businesses operate. The 20th century is characterized by a very turbulent development of technology, in which we can distinguish very different periods:

1880-1941 - development of modern administration: (introduction of typewriters).

1914-1957 - mechanization of offices which was associated with the introduction of mechanization to offices, special attention was paid to work distribution and improvement of work efficiency. The scientific approach to management was emphasized.

1957-1980 - increasing importance of computers: in the period after the end of World War II, the departments of the central administration were transformed into computer centers.

1980-2000 - computer revolution: characterized by the development of personal computers, broad access to the Internet. At that time, the importance of people and organizations and the integration of many different systems can be noticed. ICT blurs the boundaries between organizations, groups or individuals (Bouwman, Hooff, Wijngaert, & Dijk, 2005, p. 29).

Importance of innovation processes

According to literature, (Rogers, 1983, p. 363) innovations in business organizations arise in the process of initiation and implementation. Initiation which is information collection, conceptualization and planning of innovation adoption, consists of designing stages of agenda setting, which are an attempt to define organizational problems justifying the need to implement innovation, as well as identify relevant innovations available in the environment at this stage. Matching is a link between the problem created with innovation and matching between the plan and the project. The second stage is implementation (these are all activities related to the implementation of innovation), re-definition / restructuring, when innovation, is adapted to a specific problem situation and in connection with the implementation, the organizational structure of the company is adapted.

However, it should be remembered that the change in the structure, strategy and technology must be related to solutions in the area of human resource management (Czubasiewicz, 2007, p. 135). Clarification is the right relationship between an innovation and an organization where innovation should be used in a full and correct way. The last element is routinization; innovation ultimately loses its separateness and becomes an element in current operations of the organization.

Analyzing this phenomenon from the perspective of the essence and importance of ICT in an economic organization, as an innovative approach to the management process, the process of diffusion of innovation associated with the introduction of ICT is becoming more and more important in this context. The organization is developing the last three phases (adaptation, introduction and implementation), which are an extension of the approach (Cozijnsen & Vrakking, 2003) characterized by research, development, diffusion, adaptation, introduction and implementation of new solutions.

However, it should be noted that there are many factors that affect the above-mentioned processes regarding the implementation of ICT solutions in the organization and its proper use by employees. These are mainly (Bouwman et al., 2005, p. 15):

- organizational factors - all factors related to the nature of organization and business environment in which the company operates,
- technological - all elements of activity related to information and communication technology (software, devices, networks or standards)
- economic - cost factors as well as profit factors relevant to the decision-making process in the field of ICT and having direct impact on them,

- end user perspective, variables characterizing an employee in an organization using technology, his position, tasks as well as his psychological determinants associated with making decisions in the field of ICT in the context of using these solutions in the company.

The techno-economic paradigm changed the current understanding of economics by introducing new rules and vocabulary, one of them being the "new economy" with many interpretations. However, the general understanding of this concept refers to a change in the understanding of economics in the context of changes in information technology. These changes are particularly significant from the perspective of the hitherto prevailing understanding of the economy of mass production in the 1980s (Kudyba & Diwan, 2002, p. 6). The concept of economic evolution described earlier by Thorstein Veblen is based on constantly changing institutions (technological institutions and ceremonial institutions) describing a dichotomous set of institutions that is confronted with an unchanging human nature (Ekelund & Hébert, 1997, p. 415).

This process is inseparable from education; you can look at it as an investment in people who are "carriers" of human capital, capable of adapting knowledge from the outside world (Nelson & Phelps, 1966, p. 75). Accumulation of the appropriate quality of human capital is a guarantee of development and proper use of technological achievements that give a chance to improve the quality of life. Some channels related to technological diffusion are directly related to international trade and foreign direct investments (FDI) (Keller, 2004, pp. 752-753). Diffusion of knowledge is of global importance, as well as local in relation to regions and cities, it may also lead to the formation of geographically limited economic clusters in this area.

In this wider, global scope, the spread of technology and knowledge through foreign trade, the development of telecommunications and the Internet provides access to the same scope of knowledge (Keller, 2002, pp. 120-121).

POTENTIAL OF INTELLECTUAL CAPITAL CREATING CAPABILITY FOR CONSTRUCTION OF COMPETITIVE ADVANTAGES

However, it should be noted that knowledge, which is inextricably linked to human capital, is only part of a wider phenomenon called intellectual capital, characterized as the wealth of the organization. Intellectual capital is perceived as the main element taking part in the process of globalization of economies. It has changed the essence of understanding the concept of organization's wealth - both in terms of its use and creation (Jarugowa & Fijałkowska, 2002,

p. 7). The intellectual capital of the organization can be divided into the unconscious part, which includes organizational capital and social capital, as well as the conscious part, i.e. human capital (Żemigala, 2009, p. 169). Table 1 presents the percentage of employees in high-tech industries among the countries of the Tri-Seas region.

TABLE 1
Human resources in science and technology (HRST) - Tree Seas Countries 2007-2018

TIME	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
European Union - 28 countries	39	39,5	40,1	40,8	42,3	43,1	43,8	44,4	45,2	46	46,6	47,5
Euro area (19 countries)	40	40,5	40,9	41,4	42,3	43,1	43,7	44,3	45	45,6	46,3	47,1
Bulgaria	30,8	31,4	31,8	32,1	32,7	32,8	34	35,4	36,3	36,8	36,5	36,8
Czechia	36	37,1	37,9	37,8	35,9	36,6	37,2	38,1	38,1	38,7	39,6	39,9
Estonia	44,4	44,4	45,9	45,2	47,3	49,2	48,9	48,9	49,3	49,1	50,3	52
Croatia	28,3	29	30,3	31,6	29,8	31,5	34,5	35,1	36,2	37,4	38,2	40
Latvia	36,9	39,4	38,7	38	38,2	40,1	41,2	40,7	42,4	43,3	44,4	44,4
Lithuania	39,9	42,3	41,7	42,7	43,6	43,9	45,6	46,5	48,2	49,1	49,4	50,5
Hungary	31,8	33,3	33,3	33	34,6	35,6	36	36,3	36,7	36,3	36,5	37,3
Austria	37,5	37,7	38,9	39,1	40,4	41,7	43	48,3	48,6	49,1	50,1	50,4
Poland	32,5	33,4	34,9	35,9	36,6	37,7	39	40,4	41,6	42,8	44	45,2
Romania	23	23,8	24,1	24	25,4	25,5	25,1	25,6	27	27,6	27,7	27,9
Slovenia	38,9	40,1	40,6	40,8	42,4	42,8	43,5	43,7	45,1	46,5	47,8	47,4
Slovakia	31,8	32	32	33,5	33,9	32,5	32,5	32,9	33,5	34,2	35,2	36,9

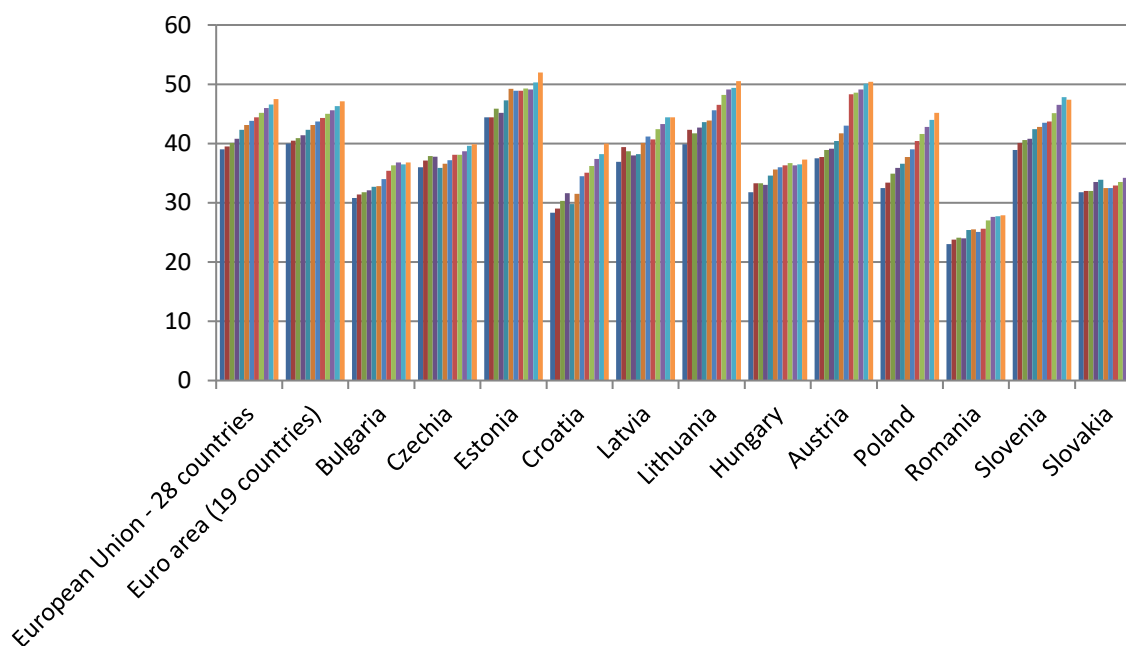
Source: Eurostat (Percentage of active population, people with tertiary education (ISCED) and/or employed in science and technology - from 25 to 64 years).

Analyzing the table, it should be emphasized that six countries belonging to the Tri-Seas region in 2018 reached a state where employment in the field of science and technology was similar to that occurring in the European Union but Lithuania, Estonia and Austria hire more workers in this area, which shows that they are becoming leaders in this field of knowledge-based economy.

Figure 1 shows the employment growth rate in the technology sectors in 2007-2018, as shown by the chart, the increase in employment from the science and technology sector in years is similar to the dynamics observed in the entire European Union.

However, it should be noted that Romania and Slovakia can not withstand the pace of employment, which in the long run may cause problems of growth and competitiveness for these countries. Another very important indicator (Table 2) is the percentage of employees in the medium-high technology manufacturing sectors and knowledge-intensive service sectors (KIS), which characterizes the structure of employees in the service sector based on high technology and knowledge.

FIGURE 1
Growth dynamics in Human Resources in Science and Technology (HRST) -
Three Seas Countries 2007-2018



Source: Eurostat.

TABLE 2
Employment in high- and medium-high technology manufacturing sectors and
knowledge-intensive service sectors - Tree Seas Countries 2007-2018

TIME	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
European Union - 28 countries	5,9	5,6	5,5	5,6	5,6	5,6	5,7	5,7	5,8	5,8	5,8
Euro area (19 countries)	6,2	6,1	5,9	6	6	6	6	6,1	6,1	6,1	6,1
Bulgaria	4,2	3,6	3,3	3,4	3,6	3,9	3,7	3,9	4	3,8	4
Czechia	10,2	9,5	9,5	9,9	10,6	10,5	11,2	11,2	11,5	11,4	11,3
Estonia	4	4,1	3,5	4,4	4,2	4,1	3,5	3,6	4	3,8	4,1
Croatia	3,8	3,3	3,1	3,8	3,8	3,6	3,3	3,2	3,4	3,7	3,5
Latvia	1,9	1,4	1,3	1,3	1,5	1,8	1,6	1,6	1,8	1,7	1,6
Lithuania	2,1	2,1	1,8	1,7	1,8	1,8	1,9	2,1	2,1	2,2	2,2
Hungary	8,6	7,8	8,2	8,7	8,4	8,5	8,9	9,1	9,5	9,8	9,9
Austria	5	5	5,1	5,5	5,8	5,8	5,9	6,2	6	5,9	6,3
Poland	5,4	4,8	4,6	4,8	4,9	5	5,2	5,3	5,7	5,9	5,9
Romania	5	4,6	4,4	4,7	4,5	4,8	5,3	5,6	5,8	5,9	6,4
Slovenia	9,1	8,5	8,6	8,2	7,8	8,3	8,6	9,4	9,6	9,8	10,2
Slovakia	10,2	8,6	8,6	9,7	10,2	9,8	9,4	10,6	10,8	11,2	11,3

Source: Eurostat. (The definition of high- and medium-high technology manufacturing sectors and of knowledge-intensive services is based on a selection of relevant items of NACE Rev. 2 on 2-digit level and is oriented on the ratio of highly qualified working in these areas.)

According to the table in 2018, countries such as Slovakia, Slovenia, Czechia and Hungary are the leaders in this area. These countries are leading in the field of services based on high technologies and knowledge, which is the basis for building their competitive position. Characterizing the employment structure in the high technology and knowledge sectors in the Tri-Seas area, the visible effect of this employment structure (Table 3) is the number of patents submitted to the EPO in individual countries.

TABLE 3
Patent applications to the European Patent Office (EPO) by priority year -
Tree Seas Countries 2006-2017

TIME	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
European Union - 28 countries	58407,5	58578,3	57049,7	56815,3	56769,6	57445,7	56771,7	56757,1	56753,0	57237,4	55984,2	54648,8
Euro area (19 countries)	48433,2	48318,7	47067,9	46994,4	46671,5	47003,9	46162,9	45885,8	45623,9	46035,2	44869,8	43571,2
Bulgaria	27,1	12,2	18,7	15,8	17,0	26,4	33,8	39,8	47,4	31,9	31,1	29,3
Czechia	152,9	189,3	209,6	176,1	192,6	222,8	232,0	250,6	269,9	295,4	318,7	357,4
Estonia	21,2	28,2	35,3	45,0	38,9	27,9	23,7	27,9	24,2	38,3	33,0	36,3
Croatia	35,5	31,2	28,9	22,0	30,3	17,0	19,4	18,5	14,6	17,9	21,1	19,9
Latvia	16,4	15,7	22,8	18,7	15,8	17,9	27,1	67,2	:	26,2	21,6	22,3
Lithuania	9,7	9,8	16,9	8,3	15,9	18,9	32,6	40,6	48,9	24,5	19,2	21,6
Hungary	165,0	191,1	181,2	184,4	195,5	221,6	207,8	215,6	222,3	205,2	201,3	196,8
Austria	1750,3	1722,0	1626,2	1711,3	1770,5	1800,3	1863,0	1913,5	1961,2	2001,6	2025,2	2029,6
Poland	140,3	201,8	233,7	291,6	361,4	384,8	483,3	547,2	609,2	578,4	627,3	686,6
Romania	20,2	32,6	33,5	31,1	34,6	60,4	71,6	85,1	101,9	93,5	98,9	99,6
Slovenia	100,4	120,1	138,9	123,3	106,3	112,1	126,7	127,9	135,1	119,1	112,4	114,3
Slovakia	40,4	38,9	36,9	28,9	46,5	54,8	44,5	49,8	:	41,9	54,2	55,1

Source: Eurostat. (The data shows the total number of applications per country. If one application has more than one inventor, the application is divided equally among all of them and subsequently among their countries of residence, thus avoiding double counting.)

The best in this context is Austria, which takes full advantage of the accumulated competitive potential in the high technology sectors. This translates into a record number of innovative patents submitted to the EPO. The next country is Poland, which occupies the second position in the ranking but nevertheless it is not a satisfactory position because the country has a significant base based on high technology and science.

SUMMARY

Summing up the above considerations, it should be emphasized that the area of the Three-Seas located in the central part of Europe can be crucial not only for the countries located between the three seas. It is justifiable to emphasize the fact that this area becomes a link between east and west, which is conditioned by the developed competitive potential of individual countries implementing the initiative of Three-Seas. The fact the area is simultaneously bringing northern Europe together with the south through jointly implemented

infrastructure investments that integrate this project and which is also an element increasing the competitiveness of the entire area as well as its individual members is becoming more and more important.

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Dutch Disease in Eastern Mediterranean

Grigoris Zarotiadis¹

ABSTRACT: Mediterranean accounts for the one fifth of global "blue economy" production, which makes it the fifth largest "economy" in the European area. Therefore, the well-known case of the so-called "Dutch Disease", along with the priorities set in the UN 2030 SDGs strategy, forces us to raise specific concerns and alternative proposals against the prospects of marine mineral extraction in Eastern Mediterranean.

In the present paper we start with analysing three types of concerns: (i) the problems arising from economic "monocultures" and the crowding out of alternative industries, (ii) the environmental opportunity costs and the non-financial sustainability concerns, (iii) the international political imbalances. Following, we evaluate existing relevant cost-benefit analyses and we conclude by setting the framework of those that needs to be done in order to efficiently study the alternative perspectives towards a non-extraction zone.

Keywords: Blue Economy, Marine Mineral Extraction, Dutch Disease, Mediterranean economy.

JEL: Q35, Q37.

INTRODUCTION

Sustainability is becoming more and more the central issue of our time, through its three key perspectives (starting from Barbier's popular three circles diagram in 1987 till the paper of Arushanyan et al. in 2017, one of the latest relevant contributions)²:

- i. the avoidance and / or reversal of adverse effects on the natural environment, caused either by the immediate over-exploitation of natural resources, or by the indirectly imposed limitations on the physical reproduction on our planet (the issue of *environmental* sustainability);
- ii. the *economic* dimension, meaning the ability of producing the needed wealth with the lowest possible effort (microeconomic approach), as well as the avoidance / utilization of negative / positive macroeconomic externalities;
- iii. sustaining conditions that secure equal opportunities, well-being and continuous improving living standards in the society (*social* sustainability).

Contrary to the beliefs of orthodox economists, all these cannot be simply achieved by letting market laws perform their balancing role. Monopolization being the inescapable result of increasing returns to scale technology and deepening product inhomogeneity on the one

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² Ben Purvis, Yong Mao and Darren Robinson (2019) provide a useful comprehensive review in search of sustainability's conceptual origins.

hand, along with imperfect Information and the resulting demand or supply driven externalities on the other, make “perfect competition” one of the most remote utopias.

Discussing about sustainability led to various, secondary or related concepts of political significance – e.g. “green growth” as the path towards “green economy”, corporate responsibility, social and environmental accounting and reporting, the transformation of Millennium Goals into the Sustainable Development Goals 2030, etc.

“Blue economy” is perhaps the latest term in this sequence. It refers to the recently increasing awareness for the economic significance of sea related activities – tourism, transportation, fisheries, coastal activities, (sustainable) energy, R&D (for a more detailed analysis see the following figure, originally represented in the cover page of the EC-report “What is the blue economy?” published in May 2018 by “Maritime Affairs and Fisheries”). The 2015 WWF briefing puts the value of key ocean assets over US\$24 trillion, with two-thirds of that based on assets that require healthy, productive oceans. For instance, even if fisheries are now overexploited, there is still plenty of room for aquaculture, which is the fastest growing food sector with the supply of 58% of fish to global markets, being vital to food security of the poorest countries especially.

The Mediterranean is extremely important with respect to the perspectives of blue growth, as it accounts for 1/5 (!) of global blue economy output and it makes the 5th largest economy in Europe (Randone et al. 2017), where we had 3.362.510 people being employed in blue economy sectors in 2014 (<https://ec.europa.eu/assets/mare/infographics/>). This explains the fact that European Commission shows strong interest in supporting the exploitation of blue economy in the Mediterranean – EC Communication (2017) 183 on an “Initiative for the sustainable development of the blue economy in the western Mediterranean” <https://ec.europa.eu/transparency/regdoc/rep/1/2017/EN/COM-2017-183-F1-EN-MAIN-PART-1.PDF> and EESC Referral Opinion REX/493-EESC-2017 on “Blue economy in the Western Mediterranean” <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/blue-economy-western-mediterranean>

Nevertheless, when we refer to “blue economy”, especially in the frame of political documents and discussions, we tend to forget the most important feature of the specific term, namely that the development of this sea-related activities should happen in a sustainable way. “Forgetting” this issue leads to various misinterpretations by including for instance drilling economy.

FIGURE 1
A diagrammatic approach of the term “blue” economy



The relevant discussion is ongoing and the present paper contributes by setting the theoretical framework for evaluating in a holistic way the developmental effect of exploiting the mineral reserves beneath Mediterranean. For this reason, we start with a review of the standard “Dutch Disease” and we proceed in adjusting this context to the specific characteristics of our area. Next, we evaluate existing cost-benefit analyses for drilling economy in the Mediterranean and we conclude in defining the dimensions that need to be additionally examined in order to have a final, complete evaluation and to support relevant policy decision making under the principles of sustainable development.

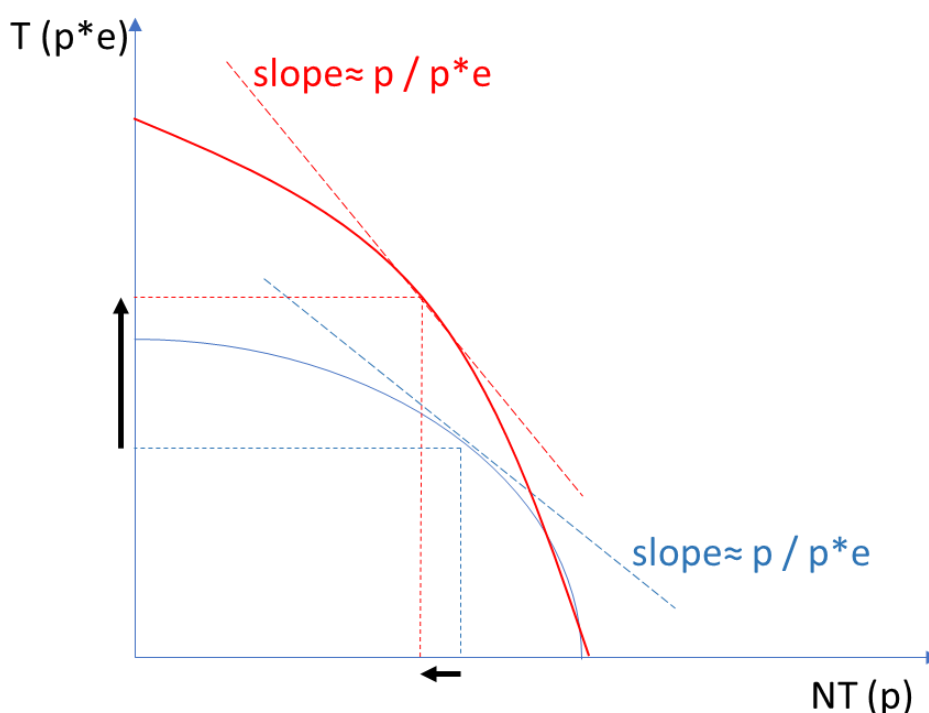
STANDARD DUTCH DISEASE

The term “Dutch disease” was firstly introduced in the Economist (26th November 1977) in an article that analyzed a crisis in the Netherlands after the discovery of vast natural gas deposits in the North Sea in 1959 (2,8 trn cubic meters of natural gas – the largest field in Europe – under the city of Groningen). The massive exports of natural gas caused the value of the Dutch guilder to rise sharply, making Dutch exports of all non-oil products less competitive. Unemployment rose from 1,1% to 5,1%, and domestic capital investment dropped.

Corden and Neary (1982) provided the standard economic theoretical explanation in the model with tradable and non-tradable sectors. The extraction of natural resources affects the economy in two ways: (i) the "resource movement effect", where employment and production shift toward the booming sector, away from the lagging sector, which is called "direct-deindustrialization". However, this effect can be negligible, since normally the booming extraction sectors has much lower labor intensity; (ii) the "spending effect" occurs as the resource boom increases demand for services leading to the so-called indirect-deindustrialization.

Dutch disease became widely used as a short description of the paradox where seemingly good news, such as the discovery of large natural reserves, have negative macroeconomic impacts. In fact, we are dealing with a case of macro-externality that takes two forms, the resource movement and the spending effect. Figure 2 presents a graphical analysis of the phenomenon. The vertical axis depicts the quantity of production in the sector of tradable products and the horizontal the analogue for the sector of non-tradables.

FIGURE 2
Standard Dutch Disease in terms of the "Australian" model



The discovery of large natural resources means that the blue production possibilities frontier changes into the red one. In the new equilibrium, price ratio changes due to the two pre-mentioned effects and becomes higher. In other words, we have both, local inflationary pressures (p rises) and domestic currency appreciation (e , in other words domestic currency

per US\$ falls). Even though the new PPF leads to higher levels of well-being, the increase of real exchange rate (p/p^*e) induces (i) adverse distributional effects, in social and spatial dimension, (ii) stagnation, even decrease of employment economy-wide in the short-run and (iii) adverse long run growth effect, especially in case of drilling economy.

DUTCH DISEASE ALA MEDITERRANEAN

There are several other cases in global economic history, in recent times but also back in time, where “Dutch disease” emerges. In the 19th century, Australian gold rush led to severe effects for the economy of the continent. Cairns have first documented this in 1859 (Corden, 1984). A recent Australian case is the one of mineral commodities in the 2000s and 2010s (Peter and Schniders, 2011 and Peter 2012).

Signs of emerging Dutch disease appear in almost all contemporary mineral reserves boom: for instance in Chile and Azerbaijani oil in the 2000s (The Economist 2007).

The phenomenon takes place even in bigger economies: for instance consider the effect of North Sea oil on manufacturing sectors in Norway and the UK in 1970–1990 (Bjørnland, 1998).

Moreover, there are versions of Dutch disease that appear due to a direct boom in foreign oriented services and in speculation markets. In Philippines, where strong foreign exchange flew in the country in the beginning of the 21st century led to losses of competitiveness, but also in the UK, where increasing reliance on the Financial Sector since the middle 1980s was preventing manufacturing growth (Christensen et al. 2016). A similar argument has been made regarding the effect of financial sector growth in exacerbating regional economic differences such as the North-South divide in Britain (Mody, 2016).

The case of Eastern Mediterranean and the prospects of various mineral reserves that have been discovered can be also discussed by using the toolbox of the Dutch disease theory. Moreover, when dealing with this area, given the pre-mentioned prospects of blue growth and the geopolitical / geoeconomic experiences from the Near and the Middle East as a whole, this helps us in widening the causal mechanism:

- i. First, because of the massive opportunity costs that can be caused, especially when the opportunities of the adversely affected, alternative sectors are very important.
- ii. Second, because world prices (p^*) of the booming tradable products may be adversely affected, either due to the magnitude of the discovered reserves and / or because of the adverse evolution of relevant consumer preferences.

The case of Eastern Mediterranean mineral reserves is a suitable scenario for widening the Dutch disease mechanism: (a) blue economy, which has significant prospects, will be probably adversely affected (the opportunity costs argument); (b) the magnitude of this reserves can be big enough to cause a fall in world mineral prices (foreign price effect). This will be even stronger in case the de-carbonization of world production (and thereby the fall of relevant world demand) will actually succeed.

FIGURE 3
The Mediterranean version

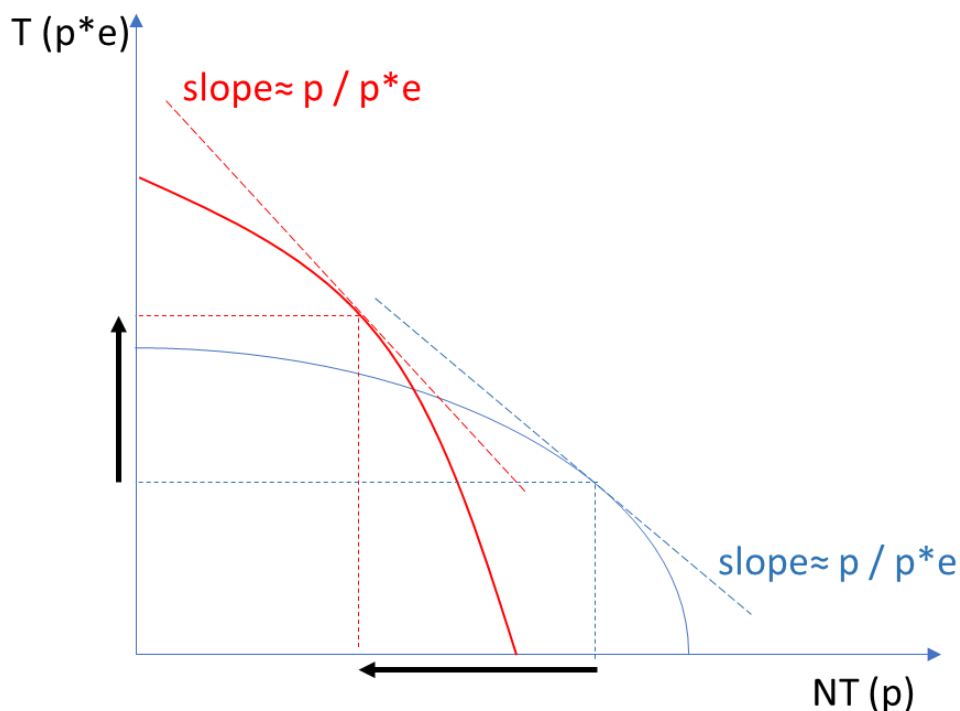


Figure 3 provides a diagrammatic analysis of the Mediterranean version of Dutch disease. Note that the main difference to figure 2 is the way how production possibilities frontier changes. In this case, the increase in the booming sector of tradable goods may be accompanied with a decrease in the production possibilities of the rest lagging and non-tradable industries (the new picture of the red curve refers to the mentioned massive opportunity costs).

At the same time, a combination of an increase in world supply with a change in preferences that lowers world demand may lead to a significant fall of p^* . This sharpens even more the slope – in other words the new equilibrium price ratio.

Both developments – the massive opportunity costs and the stronger fall of p/p^*e – may induce a fall in overall GDP and the well-being of the society, additionally to the severe

adjustment costs that will occur in the short run according to the standard version of the Dutch disease scenario.

Mediterranean version transforms Dutch disease from a simple “crowding out” scenario that incorporates several difficulties with respect to the necessary, structural readjustments in the short run, into a more severe “crowding out” that has also a negative overall effect in the long run. This is because, next the standard economic effect (through domestic inflationary pressures and a combined exchange rate effect in all participating countries), there are two additional categories of significant impacts:

- i. Environmental effects that can be (a) direct “cleaning” costs, (b) opportunity costs for other sectors, especially in those of blue economy (in other words the “environmental crowding out”) and (3) the non-financial adverse effects, or better expressed, those adverse environmental effects that can not be easily measured in financial terms (majorly because they include public, non-commercialized goods).
- ii. Geopolitical effect that includes (1) direct “dealing” costs as the control over the reserves generates major antagonisms between local and international state or private interests, (2) induced opportunity costs for other sectors – “geopolitical crowding out” – and (3) the analogue non-financial adverse effects.

EPILOGUE: TO DRILL OR NOT TO DRILL

World Wide Fund for Nature (WWF) Greece published in January 2019 a cost-benefit analysis of the exploitation of hydrocarbons in Greece (Kuyer et al. 2019).³ The research team based the estimation on four alternative scenarios:

Scenario 1 that provides a “central estimate” for all variables (central estimate for oil prices, levels of oil reserves in each field and cost of extraction);

Scenario 2 assumes a more positive economic outlook (e.g. higher oil prices and level of reserves and therefore for example more tax revenue and employment),

whilst scenario 3 assumes a slightly more pessimistic outlook relative to scenario 1 (e.g. lower than forecasted oil price or size of oil reserve or higher cost of extraction and therefore lower taxation revenue).

³ Check also the article “Oil and gas frenzy threatens Greek nature” published by WWF on February 25 2019 <https://www.wwf.gr/crisis-watch/crisis-watch/biodiversity-natural-resources/biodiversity/oil-and-gas-frenzy-threatens-greek-nature>.

Scenarios 1, 2 and 3 include minor to large oil spills over 25 years (according to the relevant literature review). Therefore, the difference in the final scenario 4 that there would be a single ‘catastrophic’ oil spill mid-way over the same 25-year period.

The study concludes on the estimated total costs, presented in 2017 prices using a 4% discount rate. Scenarios 1 through 3 indicate potential present value costs from €0.8 billion to €1.3 billion over a 25-year period, while scenario 4 indicates the potential present value costs to be around €5.9 billion. The major source of loss is to the tourism sector, followed by carbon emissions associated with extraction, and to a lesser degree, losses to the fishing sector, and costs associated with the clean-up of spills.

Nevertheless, despite the usability of this first quantitative evaluation and the political courage to counter-argue against the dominant view that strongly favors the prospects of drilling sector in Greece and the Eastern Mediterranean as a whole, there is more job to be done in terms of a holistic cost-benefit analysis:

- i. widen the “economic (standard) crowding out” effect by considering the strong prospects of blue growth;
- ii. include the “environmental crowding out”, next to the calculated “cleaning” costs;
- iii. as well as the direct “dealing” costs and the “geopolitical crowding out”;
- iv. improve the set-up of scenarios and the calculation of benefits by taking into consideration the price-effect of the combined massive increase of minerals and the highly possible (even wished) transformation of preferences towards a decarbonized production;
- v. and finally the application of the enriched cost-benefit analysis for each Eastern Mediterranean country, summarizing the results for the whole region.

Proceeding with the above is one of the most significant tasks for the academia in this region. The answer to the question “to drill or not to drill” has to be fast enough (before the hasty evolvement of drilling economy), careful, efficiently designed and holistic, based upon scientifically justified scenarios and calculations, as it may be of decisive importance for the future of Mediterranean as a whole.

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GDP Production Structure Convergence of Selected CEE Countries with the Eurozone

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ABSTRACT: Convergence of the production structures of member economies is an important contributor to the synchronization of business cycles in the Eurozone and the effectiveness of the monetary policy of the European Central Bank. This paper explores the progress made by several of the newest EU members from Central and Eastern Europe in terms of the convergence of their sectoral production structures towards the Eurozone. We employ two indicators that allow us to evaluate the degree of similarity between the production structures of the selected CEE economies and the Eurozone over the period 1998 – 2018. The results indicate that they have slowly become more similar, although some significant differences remain.

Keywords: structural convergence, economic integration, monetary unions, monetary policy.

JEL: E52, F02, L16, O47.

INTRODUCTION

Convergence of the production structures of member economies is often seen as an important contributor to the synchronization of business cycles in the Eurozone and the effectiveness of the monetary policy of the European Central Bank. This, along with the expansion of the euro area itself, is among the reasons for the renewed interest in the topic in recent years. In addition, the global recession of 2008 has raised questions over the differences in the effects of such events on the individual economies of the single currency bloc.

The CEE countries that joined the EU over the past 15 years are among the members with important differences in production structures from the Eurozone. They went through a long and difficult transition period during the 1990s before starting the process of accession to the EU. There is also considerable variation in their subsequent adaptation to the common market.

This paper examines the evolution of the production structures of some of the newest EU member countries from Central and Eastern Europe (CEE) towards synchronization with the Eurozone. More specifically, the countries that we look at are Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. Most of them are yet to join the Eurozone, which makes the issue of convergence very important for them. Additionally, the 15-year period since some of these countries joined the EU should be long enough to allow

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for an evaluation of the contribution of their deepening integration with the other Eurozone members towards the narrowing of the differences between their production structures.

In order to study this process, we first analyze the dynamics of the shares of the three main sectors in the production structures of the eight economies and the Eurozone over the period 1998 – 2018. We then apply a sigma convergence approach by estimating two indicators of structural convergence for the above economies against the Eurozone, namely the divergence index (*Div.*) and the dissimilarity index (*DISSIM*). Using the estimated values, we compare the economies to each other and to the Eurozone and interpret the results in the context of their (future) membership in the monetary union.

LITERATURE REVIEW

There has been increasing interest in the analysis of the convergence of GDP production structures and their dynamics in recent years. Most of the publications are focused on the convergence of GDP production structures of given countries in the EU or the Eurozone and they are usually conducted at different levels of disaggregation of GVA. The results of these studies are usually interpreted in the context of their influence on business cycle synchronization, which is seen to be of much importance for the response of national economies to the implementation of a common monetary policy and to other economic shocks.

The prevailing part of these theoretical analyses attempt to identify the main determinants of the convergence of GDP production structures (see Chenery (1960), Kuznets (1971) Krugman & Venables (1995), Barro & Sala-i-Martin (1992), Wacziarg (2004), Imbs (2000)). Some of these determinants lead to an acceleration of this process, while the impact of other factors is negative. The balance between these two opposite tendencies is not constant and depends both on the countries under consideration and the selected level of disaggregation. At the sectoral level some prerequisites for structural convergence emerge as a result of the narrowing GDP gap and the positive demand effect of the common market.

In a broad empirical study covering more than ten EU member countries Krieger-Boden et al. (2013) focus on some of the challenges of the convergence process from the perspective of the individual countries. Palan & Schmiedeberg (2010) use data for the whole EU (EU15 with the exception of Luxemburg) and confirm the existence of structural convergence within the group. Darvas and Szapary (2004) run an empirical survey of the behavior of GDP production structures in Hungary, Poland and Slovenia, and find a high correlation to the Eurozone in industrial production and a lack of such correlation in services.

Angeloni et al. (2005) view the composition of output as an important indicator for structural convergence and a benchmark for an assessment of the stage of economic development. On the other hand, according to MPC task force of the ECB (2004) the changes and the composition of GDP by main economic sectors are relevant to monetary policy. This may be explained by their impact on the transmission mechanisms of monetary policy as well as by their direct and indirect inflationary effects. Following Krugman's (1993) methodology, the above authors construct the distance index of output composition towards the Eurozone and estimate it for the new member states. For the same purposes von Hagen & Traistaru (2005) calculate the dissimilarity index and analyze its dynamics. Applying a similar approach, van de Coevering (2003) composes the output divergence index for the EU countries, the CEE countries (except Bulgaria), and for USA and Japan for reference.

Stattev & Raleva (2006) estimate the divergence index of GDP production structure of Bulgaria to the Eurozone and outline some positive trends, especially in the relative shares of agriculture, forestry and fishing, and services. Figuet & Nenovsky (2006) analyze the nominal and real convergence of Bulgaria and Romania and explain the weak real convergence with the different structural characteristics of the economies.

METHODOLOGY

In order to study the convergence of production structures, GVA of each economy is disaggregated into its constituent components by the product approach. This means that the total GVA is decomposed into the GVA of the three main sectors – agriculture, forestry and fishing (AFF), industry, and services. All relevant data about the Eurozone-19 and the selected CEE countries are obtained directly from Eurostat in accordance with ESA2010. The only exception is the empirical information about GVA in industry, which is adapted in advance to include construction.

The data used for the analysis of the sectoral dynamics of output and the respective structural convergence are on an annual basis and cover the period from 1998 to 2018. The considered period is long enough, and the number of observations is sufficient to outline the tendencies in both sectoral dynamics and GDP production structural convergence of the selected CEE countries to the Eurozone. The starting year also corresponds to the time the selected countries from the enlargements of 2004 and 2007 formally began accession talks with the EU.

The overall structural convergence of gross value added by main economic sectors in each country with that of the Eurozone is estimated through the traced over time divergence index, based on the following equation:

$$Div = - \sum \frac{(E_{nx} - E_{EZx})^2}{E_{EZx}} \quad (1)$$

where: x is the variable for which the divergence index is estimated; n denotes the country; E_{nx} and E_{EZx} are the relative shares of each production structure component (each main economic sector) in the GVA of the countries and the Eurozone. If $Div = 0$, then the GVA sectoral composition of the country develops as that of the Eurozone, and when it is negative it diverges from the respective composition in the Eurozone. The closer the value of the coefficient is to zero, the better the structural convergence to the Eurozone.

Another indicator that can be used for measuring the GDP structural convergence is the dissimilarity index, presented by the following formula:

$$DISSIM = - \sum |E_{nx} - E_{EZx}| \quad (2)$$

where E_{nx} is the relative share of sector x in country n 's GVA, and E_{EZx} is the share of the same sector in the GVA of the Eurozone. A higher degree of structural dissimilarity, or less similarity, is indicated by a larger negative value of the dissimilarity index. The closer DISSIM is to 0, the higher the similarity and the degree of structural convergence between the country and the Eurozone.

GDP PRODUCTION STRUCTURES DYNAMICS

There are some similarities in the initial positions of the CEE countries studied here in many areas of their economies, mainly as a result of their common pre-1990s political and economic background. There is, however, considerable variation among them in terms of their production structure at the start of the period. Most of them differ significantly from the Eurozone averages as well. Table 1 demonstrates this by comparing the shares of the three main sectors in gross value added in those countries and in the Eurozone in 1998. There are several observations that can be made from these data.

Firstly, two countries, Bulgaria and Romania, are clear outliers in terms of their AFF share, which exceeds the average for the remaining countries more than three times. The remaining countries have relatively similar shares of agriculture in their GVA with only Croatia and Hungary showing a slight deviation. However, they are also not very close to the Eurozone whose AFF share is around half of the average for the group at the time. Bulgaria is

the only economy in 1998 in which the share of industry in gross value added is lower than that of the Eurozone. All of the others have industry shares that are above the Eurozone average, with The Czech Republic being the most industrialised economy at 38.5%. The lowest national share of services in GVA in 1998 is found in Romania – less than half, while Croatia is closest to the Euro Area in that regard, but the gap is still significant.

TABLE 1
Percentage shares of the three sectors in GVA of the economies as of 1998

	AFF	Industry (incl. construction)	Services
Eurozone 12	2.4	28.5	69.0
Eurozone 19	2.5	28.6	68.8
Bulgaria	15.1	24.0	61.0
Czech Republic	3.7	38.5	57.7
Croatia	6.8	30.3	62.9
Hungary	6.9	32.6	60.5
Poland	4.3	35.3	60.5
Romania	15.9	35.7	48.2
Slovenia	3.9	36.1	59.9
Slovakia	5.2	34.7	61.0

Source: Eurostat, own calculations.

Overall, the CEE economies studied here show some similarities with the Eurozone, but there are also substantial differences both between themselves and with the Eurozone. This is an indication of the extent of the changes that the selected countries of CEE needed to go through, if their production structures were to converge to that of the EZ.

In the years since 1998 the countries followed a broadly similar growth path, with most of them growing at a relatively high annual rate of six to eight per cent throughout the 2000s, until the global recession of 2009. After the recession they went through a gradual recovery period before reaching rates of GDP growth between three and five per cent, which, although slower than the previous period, is still slightly higher than the Eurozone.

When it comes to sectoral growth rates, the **AFF** sector expectedly grows slower than total gross value added both in the Euro area and in the CEE countries.³ As a result, the share of the sector falls in all countries, which corresponds to global trends in the sector during the period. This trend is most pronounced in Bulgaria and Romania (especially until 2007), which start the period with significantly higher shares of AFF than the other CEE economies but reach levels within the same band as them by 2018. This adjustment process appears to be

³ Data on GDP and sectoral growth rates for the selected countries is available from Eurostat at ec.europa.eu/eurostat/data.

much smoother in Bulgaria than in Romania (see Fig. 1). The Czech Republic remains the closest to the Eurozone (as it was in 1998) in terms of the share of AFF over the period but is closely followed by Slovenia, with the latter being even closer in some years.

As a result of these variations the differences in terms of the respective shares of the AFF sector in total GVA both between the selected CEE countries and between them and the Eurozone appear to be decreasing (not solely because of the changes in Bulgaria and Romania) and the share of AFF in the CEE economies is slowly approaching the average Eurozone level. However, the process appears to take place mostly in the first half of the period and to be stagnating thereafter.

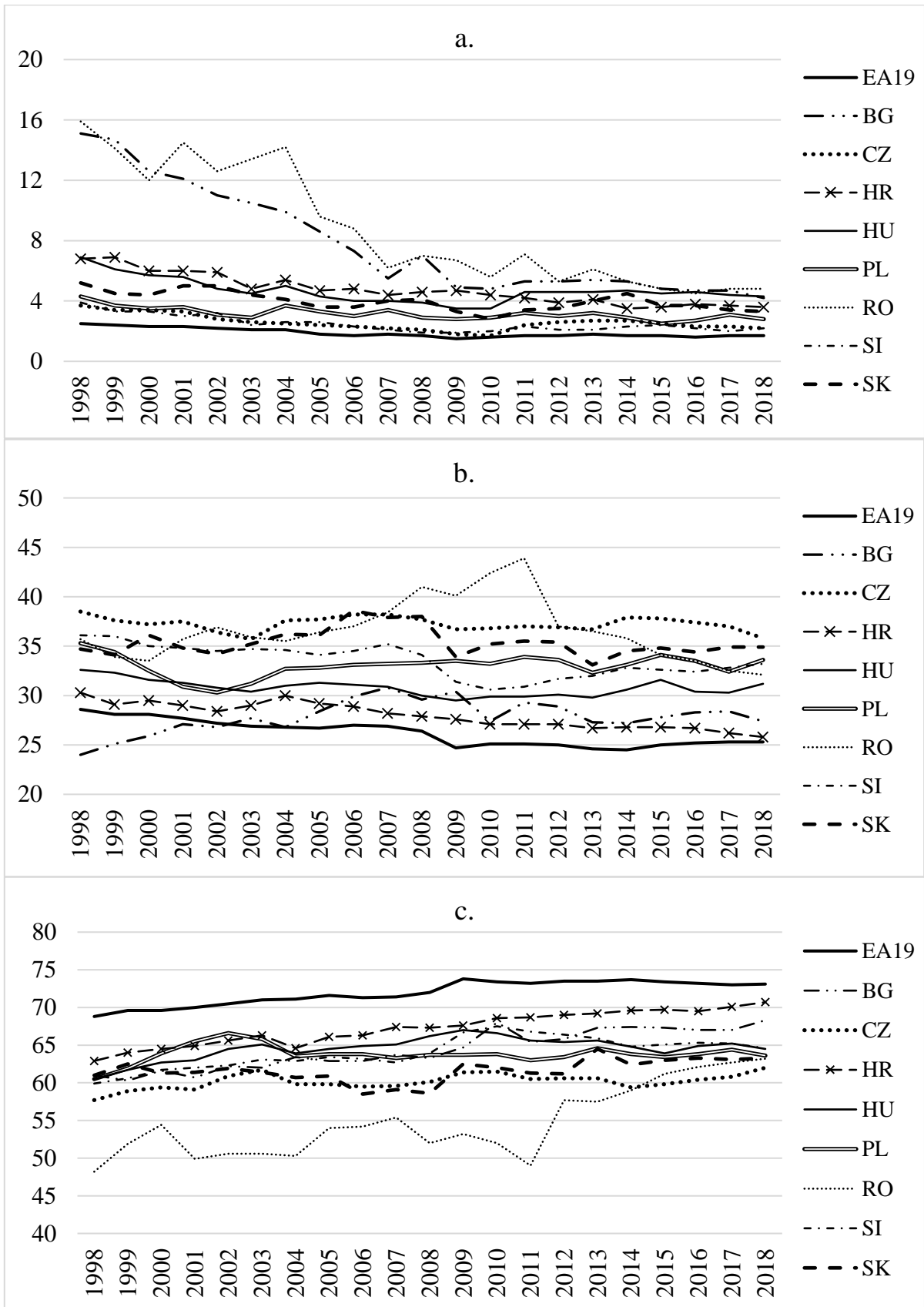
The growth rate of **industry** in the selected Central and Eastern European economies is also slightly below the growth rate of gross value added, although a lot of variation can be observed. In line with this, the share of industry in total GVA tends to fall in most countries during the period, but the trend is far from clearly identified. In Romania, for example, the share of the industry sector increases significantly (by more than 10 p.p.) until 2011; only after that year the direction is reversed and by 2018 that share falls below its initial level. Similarly, after starting as the least industrialised country in 1998, by 2007 Bulgaria reaches a share of industry in GVA comparable to the other new EU members, although that share remains among the lowest in the group. After this, a process of slow convergence back down towards the Eurozone begins. The newest EU member state, Croatia, is in fact the most similar to the Eurozone in terms of its industry share during most of the period.

Generally, the differences between the countries appear to be closing marginally until around 2003 but stagnate or slightly increase thereafter much like the situation in the agricultural sector. Differences with the Eurozone also remain substantial and in fact rise in many countries (e.g. Hungary, Poland, Czechia, etc.) – despite the relatively stable share of industry in the EZ after 2009 – which is evidence of divergence instead of convergence.

Services growth generally outpaces total GVA growth in most countries. An interesting exception is Poland, where services grow much faster than total GVA between 1998 and 2002, but then their growth basically matches total growth. Romania experiences by far the largest increase in the share of services, followed by Croatia. The services share in the newest EU member state remains the closest to the Eurozone in almost all years, replicating the situation with the industry share of the country. There appears to be a relatively stable gap between the shares of the services sectors of the selected CEE economies until 2003-2004, which widens after that and in 2018 is larger than in 1998 (except Romania, which is initially an outlier).

FIGURE 1

Percentage shares of the main sectors in the selected CEE economies, 1998 – 2018
 a. – Agriculture, forestry and fishing; b. – Industry (incl. construction); c. – Services.



Source: Eurostat, own calculations.

The overall result of this is services generally increasing their share of GVA in all countries studied here, although the differences between them and the Eurozone (which has the highest services share throughout the period) are closing very slowly (except Romania, as already mentioned), if at all, despite the slight decrease in the share of services in the Eurozone in recent years.

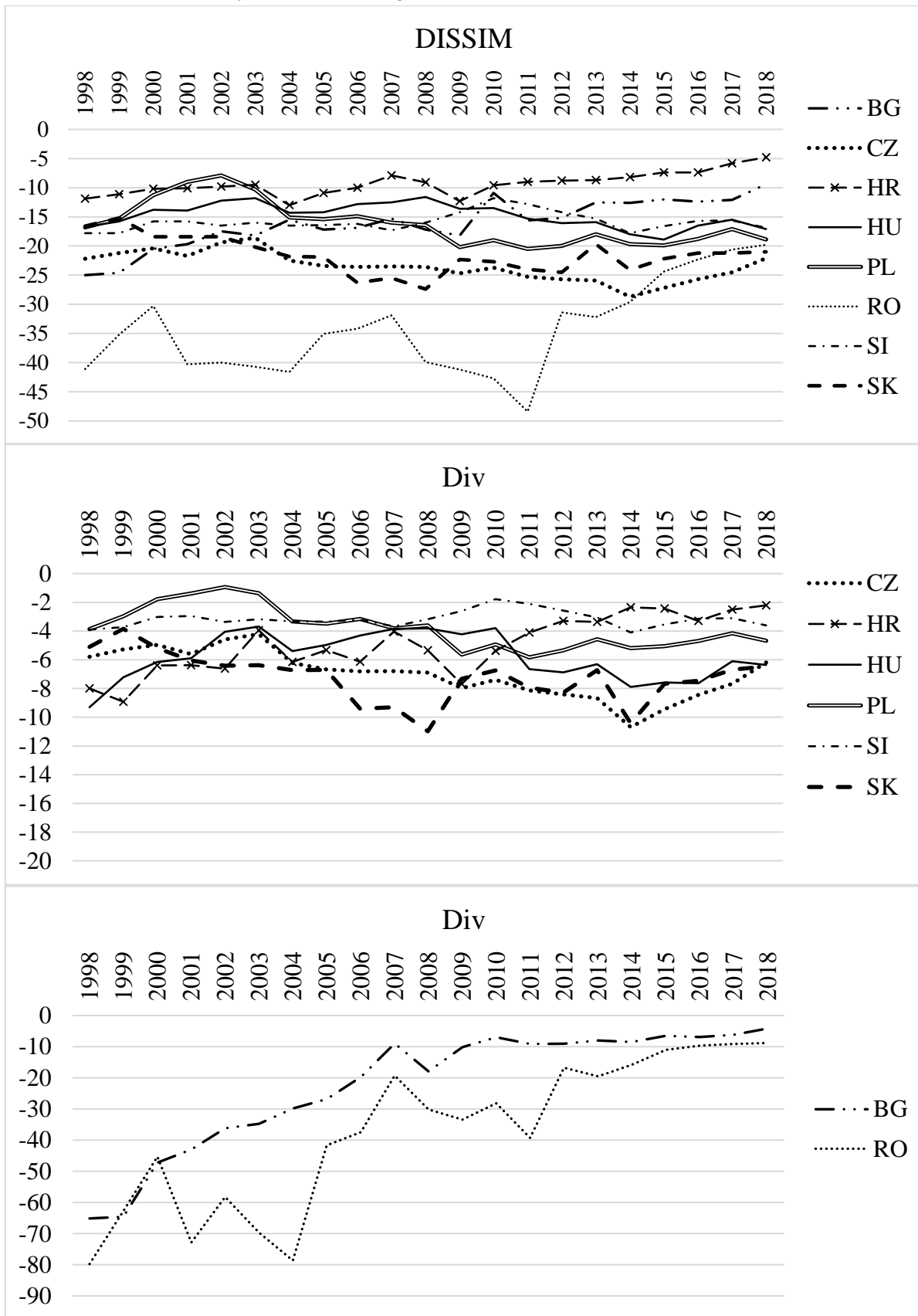
Overall, there is some weak evidence of convergence in production structures between the CEE economies and the Eurozone, mostly due to the AFF sector. The process is strongest during the period 1998 – 2007 (for AFF) and 1998 – 2004-05 (for Industry and Services); after that the picture is mixed and the arguments for the existence of convergence are less well supported. Croatia appears to be the country with the highest degree of structural convergence towards the Eurozone and Slovenia and Bulgaria are also relatively close, while Romania is probably the least converged. Despite being a member of the Eurozone, Slovakia is among the countries with the largest differences with the Eurozone averages.

THE CONVERGENCE PROCESS

The above analysis allows us to identify some basic trends regarding the production structures in the selected CEE countries and the Eurozone. We can see positive developments in some sectors as well as some less favorable ones. However, the complex composition of these production structures does not allow us to say whether the economies as a whole are becoming more similar to the Eurozone or not. By applying explicit measures of structural convergence like the dissimilarity index (*DISSIM*) and the divergence index (*Div*) we can get a better description of the process and draw better founded conclusions.

The divergence index (*Div*) generally confirms the observations made in the previous section, but the picture is still mixed. Overall, we can identify a slow process of convergence of the CEE economies towards the Eurozone, except for Bulgaria and Romania where this process is much stronger. There are, however, variations in it: initially, until around 2002, the tendency to converge towards the Eurozone characterizes the group as a whole, except Romania, where the index fluctuates without a clear direction. Then a period of slow divergence begins, which lasts until 2009. Again, this does not apply to Bulgaria and Romania, where a strong convergence trend is found. The third period from 2010 to 2018 is mixed, but with a slight prevalence of the tendency towards convergence (see Fig. 2).

FIGURE 2
Dissimilarity index and divergence index for CEE countries, 1998 – 2018



Source: Own calculations, based on Eurostat data

When it comes to the performances of individual countries Poland initially stands out with the highest level of convergence with the Eurozone, climbing to a value of -0.94 in 2002 – the highest of any country during the period. Then the country enters a period of pronounced divergence, ending up further from the Eurozone than it was at the start. Croatia is the most convergent economy during most of the second half of the period, as well as at the end of it, as a combined result of its own convergence towards the single currency area and the opposite developments in Poland. Most of the country's progress is found during 2009 – 2018, after fluctuating up and down without a clear direction prior to that.

Romania is the most divergent economy in 1998 and remains so throughout the period. The overall development of the *Div* index is towards convergence, but it fluctuates a lot over several subperiods; only in the last 4-5 years it manages to reach values that put it among the other countries. Nevertheless, the country ends the period much closer to the Eurozone and to the other countries compared to 1998. At the beginning of the period Bulgaria is the second most divergent economy, and it becomes the third most convergent one by the end of the period (after Croatia and Slovenia). The path of the country can be divided in two subperiods: 1998 – 2007 and 2007 – 2018, in which the value of the index increases consistently, but much more strongly in the first than in the second sub-period. This is not surprising, given the contribution of the agricultural sector outlined above (in addition, we should also be aware that the more similar the economies become, the more difficult it is to maintain the high rate of convergence).

There is remarkable similarity in the paths of the Czech Republic and Slovakia, with some minor exceptions. The two countries, part of the former Czechoslovakia, remain very close in terms of their production structures throughout the period. They are, together with Poland, the only economies that are more divergent at the end of the period than they were at the start. The performance of Hungary is interesting as well – the country goes from being the most divergent, except for the outliers Bulgaria and Romania, to the most similar to the Eurozone in the middle of the period in 2009-10, and back to being the second most distant one after Romania at the end.

When it comes to the differences between the CEE countries in terms of their convergence with the Eurozone, as it was pointed out in the previous section, the gaps appear to be closing until approximately 2004, then they remain relatively stable until 2009 (with the exception of Slovakia, which diverges briefly), but then a period of rising differences between

the countries follows, although the general direction still seems to be towards very slow convergence with the Eurozone.

The *DISSIM* index generally confirms the comments made using *Div*. One notable exception is that according to DISSIM Croatia is the most converged economy in almost all years, not just the second half of the period. Also, DISSIM shows Bulgaria as much more similar to the Eurozone and to the other countries during the whole period. The second index also confirms the slow progress of the CEE countries towards convergence with the Eurozone, and makes the increasing differences between them more visible.

CONCLUSIONS

The process of convergence is a long one and we cannot expect all countries in the Eurozone (as a single currency area) to have the same production structure. The CEE countries studied here have a very different economic history from the so-called 'core' of the Eurozone and many of them start the process of accession to the EU and subsequent membership in the euro area from very divergent positions in terms of their production structures by main sectors. Over the 20-year period of gradual integration with the old members and the removal of trade and other barriers and almost 15 years after many of them joined the union these production structures have slowly become more similar, but some significant differences remain.

There is tentative evidence of slow and uneven convergence of the CEE economies towards the Eurozone. It is more easily identifiable in the period until 2003-2004, and less so after that, with even some indications of increasing divergence. At the end of the period the production structures of the selected countries appear to be as a whole more similar to that of the Eurozone, but the process is far from smooth and not without reversals. Some economies are actually further away from the euro area at the end of the period than they were at the start (Czech Republic, Poland and Slovakia). The developments in the AFF sector contribute most to the convergence trend for the group, and especially for countries like Bulgaria and Romania. The impact of the Industry sector is less clear, with individual countries experiencing rising differences in its share and others becoming more similar to the Eurozone. To a large extent, developments in the Services sector mirror those in Industry and also contribute to the absence of a more clearly identified trend towards convergence.

When it comes to individual countries' performance, Bulgaria and Romania are obviously the most divergent countries at the beginning of the period, but while the strong tendency towards convergence in Bulgaria makes it one of the most convergent economies, Romania remains the worst performer, although it is much closer to the group at the end than

at the start. Countries that are already members of the Eurozone (Slovenia and Slovakia) do not necessarily show a higher degree of convergence than non-members. While Slovenia is consistently among the best performers, Slovakia is the second most divergent country at the end of the period.

The degree of convergence of the selected CEE countries with the Eurozone (along with the slow progress towards it) is perhaps not as high as could be expected after 20 years of accession and EU membership. Nevertheless, they all appear to be similar enough so that any potential outside shocks should not have significantly different effects on them and the euro area. Additionally, as far as the future membership of most of these countries in the euro area is concerned, we should not expect significant adverse effects either of the act of joining the union, or of the common monetary policy of the European Central Bank afterwards.

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The Prospects of Enlargement of the European Union: Regional Trade Integration and Stability in the Western Balkans

Georgi Ranchev¹

ABSTRACT: Has the creation of free trade area in Western Balkans based on CEFTA 2006 resulted in acceleration of the economic development of the region? Considering recent research, it could be confirmed that short-term impact of regional integration between developing countries like the ones in Western Balkans in terms of economic growth and foreign direct investment inflows are rather ambiguous. Coordinated efforts of all Western Balkans – 6 countries including Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia and UNMIK (Kosovo) with respect to tax and customs harmonization on the grounds of European Union requirements could lead to higher probability of sustainable macroeconomic and fiscal stability in the Western Balkan region rather than regional trade integration taken as isolated factor. A brief analysis of the trade between the WB-6 countries and Bulgaria (EU member state since 2007, former member of CEFTA and part of a free trade zone in Southeast Europe until the end of 2006) for the period 2006 till 2018 is also provided in the present paper. One of the main conclusions of the paper is that in order to achieve sustainable economic growth and political stability in the Western Balkans the process of European Union accession should be further speeded up. Although it looks like the prospects of southeast enlargement of the European Union is not exactly on the current agenda of politicians and societies in the present EU Member States a clearer vision for the accession of Western Balkan countries in the European Union is necessary more than ever.

Keywords: CEFTA 2006, regional trade integration, tax harmonization, Western Balkans.

JEL: F13, F15, H25.

INTRODUCTION

Looking 18 years back to Southeast Europe we could see a rather gloomy patchwork of small and relatively isolated countries trying to find desperately their new geostrategic goals and partners. Thus, on 27 June 2001 seven countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia (then referred as FYROM), Romania and FR Yugoslavia signed in Brussels a Memorandum of Understanding on the establishment of a Free Trade Zone in the region by the end of 2002 on the basis of bilateral free trade agreements. The Memorandum also confirmed that the signatory countries intend to harmonize their tax and customs legislation. Now in 2019 we face a completely different situation in Southeast Europe:

- Croatia, Bulgaria and Romania have joined the European Union.
- Albania, North Macedonia, Montenegro and Serbia are EU candidates, as North Macedonia and Albania are expecting invitations to start negotiations with the EU anytime soon.
- FR Yugoslavia has broken up into Serbia, Montenegro and UNMIK (hereinafter “Kosovo”).

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- The network of bilateral free trade agreements was cancelled and replaced by CEFTA 2006 agreement.
- CEFTA is completely reshaped as a multilateral trade liberalization vehicle and its current members are Albania, Bosnia and Herzegovina, North Macedonia, Moldova, Montenegro, Serbia and Kosovo.

In 2019 six of the countries in Southeast Europe – Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia and Kosovo (the Western Balkans or WB-6) are still struggling to achieve political, social and economic stability in a constantly changing geostrategic environment.

Further stabilization in the Western Balkans could be achieved if economic growth is speeded up as deeper trade integration could be one of the paths to follow. However, the removal of the trade barriers should go hand in hand with some level of harmonization of the tax and customs legislation as the European guidelines should be taken as a benchmark considering expected accession of the Western Balkans in the European Union.

REGIONAL INTEGRATION AGREEMENTS AND THE WESTERN BALKANS

Theoretical Background

The theory on regional integration generally identifies three main types of trade integration (see Schiff and Winters, 2003):

1. “North – North” integration between developed countries (EEC, Canada joining CUSFTA);
2. “North – South” integration between developed and developing countries (Mexico joining NAFTA);
3. “South – South” integration between developing countries (ASEAN, MERCOSUR, CEFTA).

This division is quite important as the economic implications of regional integration agreements may vary substantially depending on the type of economic integration perceived. The main implications of regional integration agreements between developing countries based on recent research could be summarized in the following way:

- Regional integration between developing countries could have a positive effect on foreign direct investments for the Western Balkans as a whole while the bulk of FDI inflows would be attracted by the countries in the region having the best locational advantages (see general analysis of Blomstrom and Kokko, 1997).

- There is no strong empirical evidence that regional integration between developing countries (like the ones in the Western Balkans) will stimulate growth, as opposed to the benefits in terms of growth rates enjoyed by a developing country integrating with developed countries (like the European Union) (see the analysis of Vamvakidis, 1998, and Arora and Vamvakidis, 2004).
- Corporate income tax competition between members should be avoided, as it could lead to substantial losses of budget revenues. As direct tax harmonization is practically impossible even on EU level, countries may coordinate appropriate corporate tax levels and conclude DTTs. Harmonization in the field of indirect taxes will lead to limitation of budget revenue losses within the countries forming a regional integration agreement (see also de Bonis, 1997).

CEFTA 2006

On the 19th of December 2006 the amendment of the Central European Free Trade – usually now referred as CEFTA 2006 was signed by Albania, Bosnia and Herzegovina, Croatia, Macedonia, Moldova, Montenegro, Serbia and Kosovo. CEFTA 2006 agreement actually replaced the network of bilateral free trade agreements based on the Memorandum of Understanding from 2001 and which until then were existing between Albania, Bosnia and Herzegovina, Montenegro, Croatia, Macedonia, Moldova, Serbia and Kosovo. The main objective of CEFTA 2006 is to facilitate the expansion of trade in goods and services and foster investment by means of fair, stable and predictable rules. An important aim of the agreement is also the elimination of barriers to trade and appropriate protection of intellectual property rights in accordance with international standards. The harmonization of trade policy issues such as competition rules was also agreed. It is expected that the Agreement will provide the necessary conditions for the members of CEFTA 2006 to prepare for EU accession, which was the agenda successfully achieved by the previous and founding members of CEFTA.

Selected WB-6 Country Indicators

In order to discuss the potential effects of CEFTA 2006 on the economies of the six Western Balkan countries we could analyze the basic economic indicators for the WB-6 countries, which are given in outline below.

TABLE 1
Selected WB - 6 country indicators

Indicator	ALB	B&H	KOS	NMAC	MON	SER	TOTAL
Area in sq. km	28,748	51,197	10,887	25,713	13,812	77,474	207,831
Population, 1000 pers. (2018)	3,057	3,850	1,907	2,119	614	7,078	18,625
GDP at ER, USD billion	13.1	18.2	7.1	11.4	4.8	41.4	96.0
GDP/capita (USD at ER)	12,500	12,800	10,900	14,900	17,800	15,100	
GDP, real growth, in %	3.8	3.0	3.7	0.0	4.3	1.9	
Unemployment rate, in %	13.8	20.5	30.5	22.4	16.1	14.1	
Trade balance, USD billion	-3.2	-4.3	-2.8	-2.0	-2.2	-4.5	-19.0

Source: CIA World Factbook data estimated for 2017/2018 and author's calculations.

The Western Balkans have a territory of 207,831 square kilometers and population of more than 18.6 million people. The economies although having positive growth rates with the exception of North Macedonia are relatively small in terms of GDP and GDP/capita. The unemployment rates in WB-6 are very high which could also be a sign for significant grey economy. The trade balances for all the countries are negative. The structure of the WB -6 economies is given in Table 2 below.

TABLE 2
Structure of the WB -6 Economies for 2017 as % of GDP

Sector	ALB	B&H	KOS	NMAC	MON	SER
Agriculture	41.4	6.8	11.9	10.9	7.9	19.4
Industry	18.3	28.9	17.7	26.6	17.1	24.5
Services	40.3	64.3	70.4	62.5	75.0	56.1

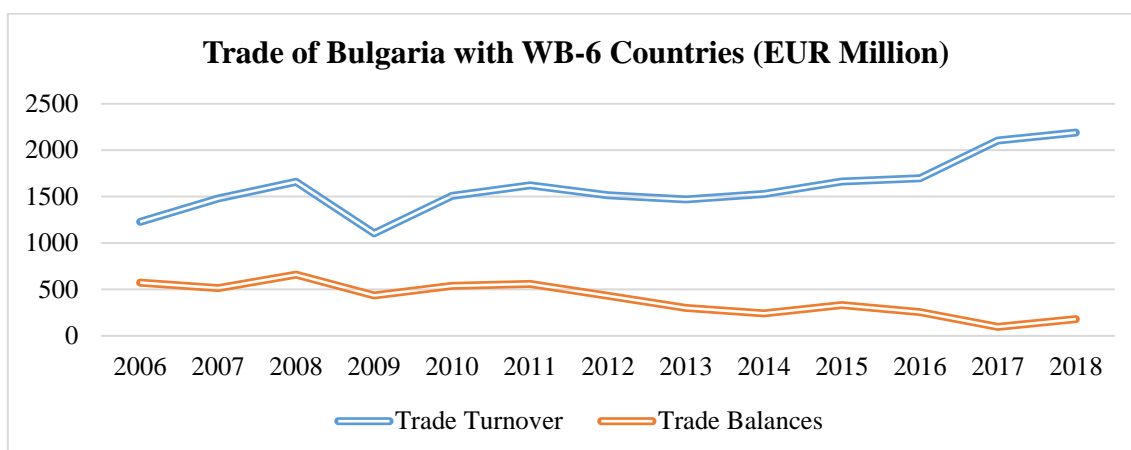
Source: CIA World Factbook data estimated for 2017.

Albania has the largest share of agriculture – 41.4 percent of GDP compared to the other countries. For all the countries except Albania the share of services is significant part of GDP as there is a clear shift from previous years from agriculture to services.

Trade relations of Bulgaria with the WB-6 countries: a case study

Going back to 2006, Bulgaria had bilateral free trade agreements with the WB-6 countries in place and was a member of CEFTA. The trade liberalization outcome for Bulgaria as member of the EU is to the benefit of WB-6 export to Bulgaria (see Figure 1 below). The trade statistic information for the analyzed period shows a clear increase of the Bulgarian trade turnover with WB -6 countries in line with reduction of positive trade balance with all WB -6 countries. The sharp decrease in 2009 is explained by the drop in international trade due to the global financial crisis. In Figure 1 below are shown the trends in trade turnover and trade balances for the period 2006 until 2018 between Bulgaria and the Western Balkan countries.

FIGURE 1
Bulgarian trade with WB -6 countries for the period 2006 – 2018 (EUR million)



Source: Ministry of Economy of Bulgaria and author's analysis.

Although trade balances continue to be negative for WB–6 countries except Serbia (see Table 3 below) clearly the Bulgarian positive trade balance in nominal value is decreasing. The further reduction or eliminations of trade barriers will provide for more opportunities for WB-6 companies looking for expansion in the EU. If the WB trade partners of Bulgaria are to be ranked based on trade turnover, the following results can be observed for the year 2018 (Table 3).

TABLE 3
Most important trade partners on the basis of turnover (EUR million) for 2018

Countries	Balance	Turnover	Rank
Serbia	-102.8	1160.2	1
North Macedonia	100.3	742.8	2
Albania	66.1	101.2	3
B&H	38.5	83.1	4
Kosovo	61.4	77.6	5
Montenegro	16.2	25.0	6
Total	179.7	2189.9	

Source: Ministry of Economy of Bulgaria and author's analysis.

As it can be seen from the data in Table 3, the most important trading partners of Bulgaria within the region are Serbia and Macedonia. Trade turnover with Albania, B&H, Kosovo and Montenegro is still insignificant and trade opportunities are to be further explored.

Corporate and VAT tax rates in the Western Balkans

The corporate tax and VAT rates for 2019 for WB-6 countries are shown in Table 4.

TABLE 4
WB-6 Tax Systems in 2019

	Corporate Tax Rate	Standard VAT Rate
ALB	15	20
B&H	10	17
KOS	10	18
MAC	10	18
MON	9	21
SER	15	20

Source: KPMG Global (2019).

Based on the data above we could summarize that the levels of corporate tax rates for the year 2019 are still rather low. This situation can be explained with the growing globalization of the business and implementation of new technologies, the adverse risk profile of investors in the WB countries and a significant pressure to provide competitive corporate tax rates (Bulgaria's corporate tax rate is also 10 percent), which resulted in a minimization of corporate tax rates in the region to historically low levels. Efforts to harmonize and/or coordinate the tax and customs legislation is of paramount importance for the successful operation of CEFTA 2006. The creation of clear rules, in line with the European requirements in this field is needed for securing long-term fiscal stability in the region. With the removal of the trade barriers, the differences between the tax legislation become apparent - especially with respect to VAT and the excise duties. In this way, if there would be significant discrepancies in the applicable VAT and excise duty rates, which could lead to a decrease of the budget revenues in the countries, which apply higher rates of indirect taxes. At the same time bigger differences in the corporate rates might have a substantial impact on the decision of the few potential investors to prefer a specific location/country for new investment among all other countries in the Western Balkans.

CONCLUSION

Deeper regional integration for the Western Balkan countries in parallel with relevant tax and customs harmonization based on EU requirements can facilitate the efforts to maintain more sustainable economic development in the WB region. In this way the requirements of the European Union in the field of indirect taxation and customs can turn out to be a common starting point in the direction of more active economic integration of the region in line with the forthcoming accession of the Western Balkan countries in the European Union.

Trade liberalization and fiscal stability through harmonization of tax and customs legislation should remain on the agenda of the countries in the Western Balkans, in order to

secure a long-term vision for the undergoing processes of modernization on the way of achieving European Union membership. The European Union institutions should provide more clear messages regarding the timing of accession of each of the WB-6 countries (notably the recent recommendation of the European Commission to opening accession negotiations with Albania and North Macedonia) as to further accelerate the processes of transformation in the region via the Berlin process and the Regional Cooperation Council.

The main goal of the present paper was to outline some of the most important aspects of deeper regional integration of the economies of the six WB countries. The analysis shows that although short-term economic effects would be ambiguous for the WB-6 countries, the process of trade liberalization amongst the Western Balkans and with the EU leads to gradual reduction of negative trade balances with some EU countries and which could bring more security having the effect of a greater degree of stability in these countries in the long run.

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Exchange Rate Volatility Impact on Financial Performance of Small and Medium Enterprises Sector

Irsida Dinoshi¹

ABSTRACT: For the macroeconomic importance that SME sector has, we decided to study the impact of exchange rate volatility on the level of financial profits and liquidity of the business. Our goal was to get some information's from managers regarding their experience in working with foreign currencies, their opinion on how do they evaluate the appreciation or the depreciation of Euro and USD as the most used currencies in the country, and how these fluctuations have impacted on the liquidity or on the profitability of the business. We drafted a questionnaire with 20 questions and addressed it at a target group of businesses operating in the Tirana region. We must emphasize that this is a study based on qualitative data because the expression in quantitative dates for managers constitutes a publication of confidential business information. The study period is very short 2010 – 2015 in order to be as close as possible to the reality. It is a random selection of firms and is mainly aimed at enterprises with expansion of activity domestically and internationally or operates with foreign currencies other than domestic currency. The methodology followed will be detailed at each step of the statistical tests to be used in the accurate processing of primary data, in raising hypotheses, and realizing the analysis of results in support of the economic reality in the country during the study period. The study concludes with the results of data analysis based on the study sample and ascertainment of the limitations of this study. Of course, suggestions are also made for further work following this study as this is a very large field and every day gets even bigger.

Keywords: exchange rate volatility, financial performance, managers, SMEs.

JEL: F23, F31, F 37.

INTRODUCTION

The change of the political and economic system after the 1990s in Albania was accompanied not only with great challenges but has been commented and analyzed by many domestic and foreign researchers for years. The Small and Medium Enterprises sector has an important role in the economic development of the country and its financial performance has an important role at the level of national finances. In an open economy country, it is estimated that exchange rate fluctuations may affect both the economic performance of the country and also the economic and political developments of it, the Bank of Albania monetary policy decisions, and so on. The exchange rate is a dynamic variable, whose mobility is determined by a wide range of economic, financial, political and social factors, the most important being the following GDP, inflation rate, balance of payments and interest rates². Based on empirical evidence the real exchange rate is closely related to the level of production and economic

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² Tertyshnaya, Ekaterina, and Ilona V. Tregub. "Effect of Exchange Rate Changes on Important Economic Indicators on the example of Romania." *Forum for Reseach in Empirical International Trade*, February 14, 2013: 1-19.

development in the country. Local currency devaluation creates opportunities to increase local exports and services by making our goods cheaper in foreign markets and lowering demand for imported goods in the country. While the strengthening of domestic currency certainly has the opposite effect, as it expands exports, import products become more competitive and this will also affect the deepening of trade deficit.

SMEs create jobs, compete with big enterprises, become part of the global market, contribute to poverty alleviation in developing countries, boost exports and reduce imports. Of course, education and work experience are factors that have a positive impact on job organization, business plan design; strategic objectives based on the mission and vision of the company, as well as in the forecast of the future or the selection of low-risk investments. The main responsibility for this is related to the company's manager or managerial skills.

PROBLEM STATEMENT

The most sensitive part of the exchange rate fluctuations is the business sector that operates in international trade. The Bank of Albania conducts ongoing studies on the fluctuations that the exchange rate has from its equilibrium level in order to maintain balances in other macroeconomic indicators where the impact is higher³.

The impact of these fluctuations is intended to be studied through an analysis at the microeconomic level by focusing on a casual business group with international activities. These businesses are localized at the industrial - economic zone Tirana – Durrës. We aim to analyze the study in the SME sector operating activity through which we will understand more about the level of experience of company managers on how do they manage the foreign currency price fluctuations, liquidity management, management of profit or loss in international trade etc.

OBJECTIVES OF THE STUDY

In this study we intend to:

- Understand how much SME sector was affected by the exchange rate volatility during the study period;
- To find out about the way of liquidity management, customer relationship management;

³ Referring to the publication of periodic reports of Monetary Policy and Financial Stability in the country by the Bank of Albania (www.boa.al).

- How much experience do the managers have in forecasting and preventing this phenomenon, etc

HYPOTHESIS

In the light of the problem of our study, we have raised the main hypothesis and some supporting hypotheses with some of the most important variables of the questionnaire as follows:

H₁: The differences between the two variables are not statistically significant

H₀: Differences between the two variables are statistically significant

H_{0a}: The currency with which most business transactions are carried out *does not have* significant links to the currency with which businesses keep their savings

H_{0b}: The type of business activity *has no* significant relation with the assessment that businesses give over the profitability level as the effect of exchange rate fluctuations.

H_{0c}: The type of business activity *does not have* significant links with the assessment of their performance as the effect of European currency empowerment.

H_{0d}: The type of business activity *does not have* significant links with the assessment of their performance as the effect of US currency empowerment.

LITERATURE REVIEW

What are small and medium-sized enterprises? There is no standard definition of what constitutes an SME making research into the contributions made by SMEs to economies around the world extremely challenging. Nevertheless, a substantial amount of work has been done to assess the roles that SMEs play in driving gross domestic product (GDP) growth and sustaining employment. The evidence suggests that SMEs are vitally important for economic health, in both high-income and low-income economies, worldwide⁴. A considerable number of studies have been worked out with purpose to demonstrate the role of the education in enterprises success, or if there is any relation between level of education of Small and Medium Enterprises owners and the growth of their businesses, using some financial indicators as variables. Peters and Brijlal (2011)⁵ conducted in their study that there is a relation between level of education and enterprises performance, using labour force and turnover as success indicators. Professional experience has been cited as an important factor

⁴ Edinburgh Group. "Growing the global economy through SMEs". <http://www.edinburgh-group.org>, Edinburgh Group, 6.

⁵ Peters, Ricardo M, and Pradeep Brijlal. "The Relationship between Levels of Education of Entrepreneurs and their Business Success: A Study of the Province of KwaZulu-Natal. South Africa." (IP Publishing Ltd. Bedfordshire, UK) 25, no. 4 (August 2011): 265-275.

affecting many aspects of entrepreneurial firms. Regarding Cowling (2009)⁶ it has been an increase in entrepreneurship courses taught in schools, further education colleges and universities and government support programmes to help entrepreneurs gain the necessary skills and knowledge⁷.

In developed countries and developing countries, SMEs contribute to the stability of the national economy. They help the economy cope with the shocks of economic cycles. SMEs serve as the main engine for the equal distribution of income among workers. Knowledge is recognized as an important weapon for sustaining competitive advantage and many companies are beginning to manage organizational knowledge⁸.

METHODOLOGY

Research Approach

It is used a descriptive research approach in aim to describe the key indicators selected from the questionnaire as: type of currency that businesses use, the type of activity that businesses exercise, the fluctuation of the US dollar and the European currency, their impact on the financial performance of businesses ect.

For the testing of these links, we created four sub-hypotheses supporting the main hypothesis, and we would appreciate the statistical significance of the linkage through the result of the Pearson Chi-square correlation coefficient. From the analysis of sub-hypotheses we give and answer the main hypothesis of this analysis, whether accepted or rejected.

Population and Sample

In order to gather the qualitative data, we developed a questionnaire with 22 different questions. Its distribution forms were via e-mail addresses and in some cases direct meetings on the premises of these businesses located in the region of Tirana. The only requirement was that business must have an international commerce or has considerable transactions in foreign currency. The final sample comprised 96 respondents. Our aim was to include questions related to: the type of business activity, their opinion on foreign currencies and which is most used in trade activity (based on their experience), the foreign exchange market in transactions,

⁶ Cowling, M. *"The impact of Entrepreneurship Training and Small Business Experience on Future Entrepreneurial Activity in the UK"*. UK: Institute for Employment Studies, 2009.

⁷ Chilya, Norman, and Mornay Roberts-Lombard. *"Impact of Level of Education and Experience on Profitability of Small grocery shops in South Africa"*. *Int.J.Buss.Mgt.Eco.Res* 3, no. 1 (2012): 462-470.

⁸ Myslimi, Grisejda, and Kriselda Kaçani. *"Impact Of SMEs in economic growth in Albania"*. *European Journal of Sustainable Development*, 5 3, 2016: 151-158.

the impact of the fluctuations of the exchange rate volatility on their profitability, lending policies of their company etc.

Data Gathering

In this study project, we initially engaged in collecting business contacts that would be the target group of this survey. The questionnaire was sent to the personal email addresses of business leaders and each should take no more than 5 minutes to complete and click on the alternatives for each question. Once a respondent sends the completed questionnaire, all the responses were collected on an excel sheet that we analyzed and created the most important links with some variables. The questionnaires were sent on the period November to December 2017.

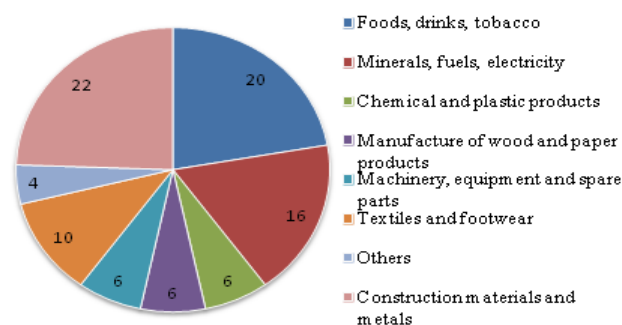
Data Analysis

Based on the sub-hypothesis and on the main hypothesis of the study, the links between variables were analyzed using the result of the Pearson Chi-square correlation coefficient in aim to state whether the hypothesis is verified or not.

RESULTS

On the tables below we have analyzed the most important questions that serve to prove the sub-hypotheses as well as the main hypothesis. The vast majority of surveyed businesses are concentrated in the Industry (in 42 cases), in Imports - Exports (12 cases), and in Other activities we have had almost the same number.

FIGURE 1
Type of businesses activity of the sample of the study



Source: Author's calculations based on collected questionnaires.

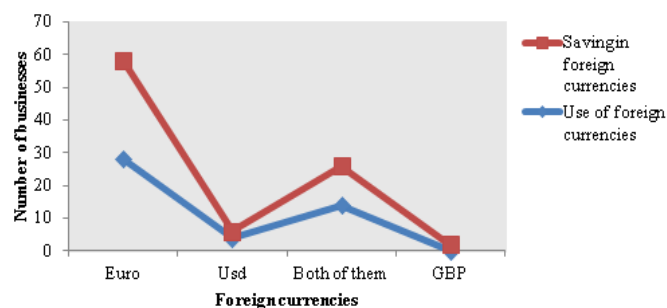
One of the questions asked by the questionnaire is related to the type of external trade activity ie Import, Export or both, the survey showed that businesses were more focused on

imports in 48 cases, as well as 28 businesses exercised both activities and only 16 businesses alone exported. Although our study sample is not very large, this result demonstrates the nature of the country's foreign trade development during the study period, where importers prevail over exporters of consumer goods and services. As far as the partner countries with which these businesses sell are Italy, Kosovo, Greece, and Germany.

A set of questions addressed to business managers had to do with the type of currency they used most in their transactions as well as on savings in order to manage the liquidity of the cash with which they operate.

European currency as the currency most used in transactions is also linked to the frequency of the European countries with which they develop foreign trade and have the most cooperation co-operations. The fact that these businesses choose to save more in the euro, shows that they have chosen a hedging strategy above the required level of liquidity as well as minimizing the level of losses as a result of the ALL / Euro exchange rate fluctuations in the market currency. This proves that these are businesses with long experience in the market and have good knowledge of the exchange market in the country.

FIGURE 2
Uses of foreign currencies on businesses transactions and savings currencies



Source: Author's calculations based on collected questionnaires.

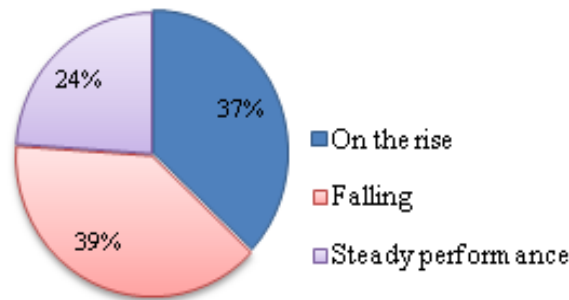
The group of the following questions relates to the estimates that businesses have made on the profitability level as a result of foreign exchange rate fluctuations.

In the concept of profitability, we did not insist on specifying specific reports, indicia or concrete financial values, but in their conclusions on the sensitivity of the annual profit margin over the last five years, if it had grown, decreased or remained almost in same levels.

According to this result, the exchange rate fluctuations during the study period have not helped the private sector increase in monetary transactions, expanding the market abroad, or undertaking the most appropriate new policies.

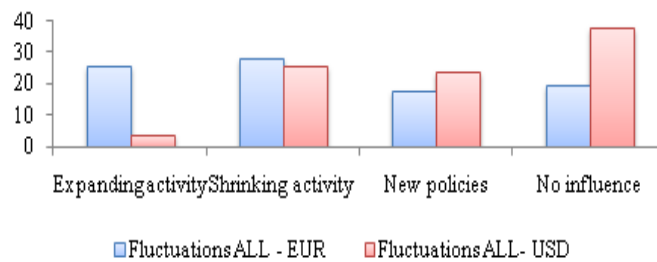
Most businesses have claimed that the European currency empowerment did not affect the expansion of the activity but kept the same growth rate and in some cases shrinking. About 20% of businesses have thought about finding new policies while for 21% of the study sample did not affect their activity.

FIGURE 3
Assessment of profitability levels affected by fluctuations in the exchange rate



Source: Author's calculations based on collected questionnaires.

FIGURE 4
Impact of exchange rate fluctuations in operating business operations



Source: Author's calculations based on collected questionnaires.

But on the other hand, these businesses have expressed a different stance on the US dollar fluctuations, because for 41% of them there has been no impact, and for the rest these fluctuations have led to lowering activity or undertaking new policies for the development of economic activity of them.

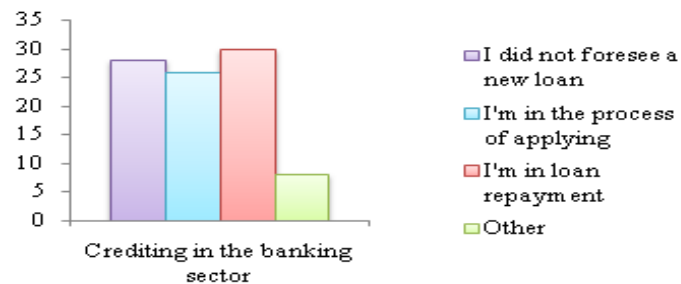
The last group of questions was related to the profitable business ability, their level of lending, and the relationship with customers and suppliers.

Businesses estimate access to credit as flexible with second-tier banks (52 of them), while 36 businesses have responded that they have noticed a rise in credit rating by the banking sector. The businesses surveyed stated that they were interacting with a second-level bank to repay a loan or were in the process of application and even had plans again lending

due to liquidity requirements. This indicates a continued support from the sector of businesses for additional liquidity.

Although the depreciation of the domestic currency over the study period, it has not led to high levels of profitability and expansion of the business, the pursuit of liquidity comes from policies that have businesses with each other in the supplier - customer relationship.

FIGURE 5
The business credit level in the second level banks



Source: Author's calculations based on collected questionnaires.

While connected to relations with customers and their suppliers, businesses say that their level of liquidity is reduced because it is noticed an increase in the time required by the clients to make the payment of credit sales. This has brought some delays in the settlement of their suppliers.

Statistical Analysis

In order to certify whether or not the main study hypothesis, we used the results of the correlation coefficient Pearson Chi-Square and the outcome of the p-value for each connection expressed through four sub-hypotheses with a statistical significance of 5%.

TABLE 1
Results of the statistical analysis of sub-hypothesis verification

Sub Hypothesis	Pearson Chi-Sq.	p-value	Results
H _{0a}	36.937	0.000	Is not verified
H _{0b}	6.867	0.143	Is verified
H _{0c}	17.542	0.007	Is not verified
H _{0d}	14.729	0.022	Is not verified

Source: Author's calculations according to the E-views statistical program 9.5.

On the basis of these results we have judged on the statistical significance of the connections between the most important variables of the questionnaire and through them we

appreciate the impact of exchange rate fluctuations of foreign currencies against the local currency used.

THE RESULTS OF THE STUDY ANALYSIS

The main purpose of the questionnaire was to share business experience about the exchange rate fluctuation impact on their annual earnings, the relationships and estimates they had for the most common currencies used in their transactions and their liquidity management capacity. Some of the most important results of the survey are:

- Most of the surveyed businesses, regardless of the type of currency they use in international trade transactions, aim at saving their savings in the Euro currency. So this currency was noted to have a priority in short-term and long-term liquidity planning by businesses. This also confirms the geographic extent of the international trade exercise by the business sector in the country.
- The type of activity (focused solely on exports, only in the import or export of both) has an influence on the estimates of the profitability of these businesses as a result of domestic currency exchange rate fluctuations with the most widely used foreign currencies (euro and usd).
- Business activity is more focused on importing goods and products and the effect of fluctuating domestic currency value against foreign currencies is estimated to have led to a decrease in the annual profitability level during the study period (and increase for exporting businesses). This means that ALL has shown stable and appreciative positions against the euro and US dollar as the most used currencies in the Albanian foreign exchange market.
- In order to have a more detailed assessment of the impact of each foreign currency on the activity performance of the surveyed businesses, we tested the statistical significance of the links if the type of activity exercised is more influenced by the strengthening of the euro or US dollars. Theoretically, the strengthening of foreign currencies (or the depreciation of domestic currency) will lead to lower profits for importers and higher profits for exporters.
- As such, for export businesses the largest share in transactions was the Euro, the strengthening of which has depreciated the ALL.
- The euro currency has had a more stable fluctuation level and a lower margin of avoidance than the US dollar against the domestic currency. The US dollar has shown divergence at higher margins (rather than euro) against the ALL. It also turns

out that these businesses have been prudent in assessing the domestic currency and in order to maintain good performance of their activity have undertaken new remedial policies.

- By analyzing the most important variables of the questionnaire, we have come to the conclusion that the differences between the two variables are statistically significant.
- Managers, regardless of the nature of their activity, have been shown to be careful in forecasting exchange rate fluctuations.

Through this study we realized that they had gained a good working experience and liquidity management by operating in the international market. Many businesses were not only cautious in the monetary forecasts available for their activity, but also customer relations often matched the curve of the currency price fluctuation in the country or even the seasonality of the business within the year.

It is good to understand that for the study period, despite the divergence of the exchange rate fluctuation being low, the SME business sector has not suffered any major losses during its activity because the factors have been managed well by their managers.

LIMITATIONS

Limited sample of subjects who were willing to cooperate for this study, consisting of about 100 firms located in Tirana Region and with international activity, has limited the full impact assessment of RER in this sector. It is recommended to conduct a study of the impact of RER fluctuations in the sector of medium and large enterprises that carry out international activity, to collect quantitative data for the construction of financial indicators, to target the expansion of the sample throughout Albania and to expand the period of study.

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Analysis of the FDI in Some of the Countries in South and Eastern Europe and the Black Sea Region Bulgaria, Greece, Poland, Romania and Slovakia in the 2013 – 2017 Period

Aglika Kaneva¹

ABSTRACT: This research is dedicated to the analysis of the dynamics of FDI in the countries in South and Eastern Europe and the Black Sea Region Bulgaria, Greece, Poland, Romania and Slovakia. The structure of FDI by partner countries and economic activities in South and Eastern Europe and the Black Sea Region countries has been studied. The factors that determine FDI in these countries have been examined.

Keywords: FDI, FDI by partner countries, FDI by economic activities, countries in South and Eastern Europe and the Black Sea Region, Bulgaria, European Union

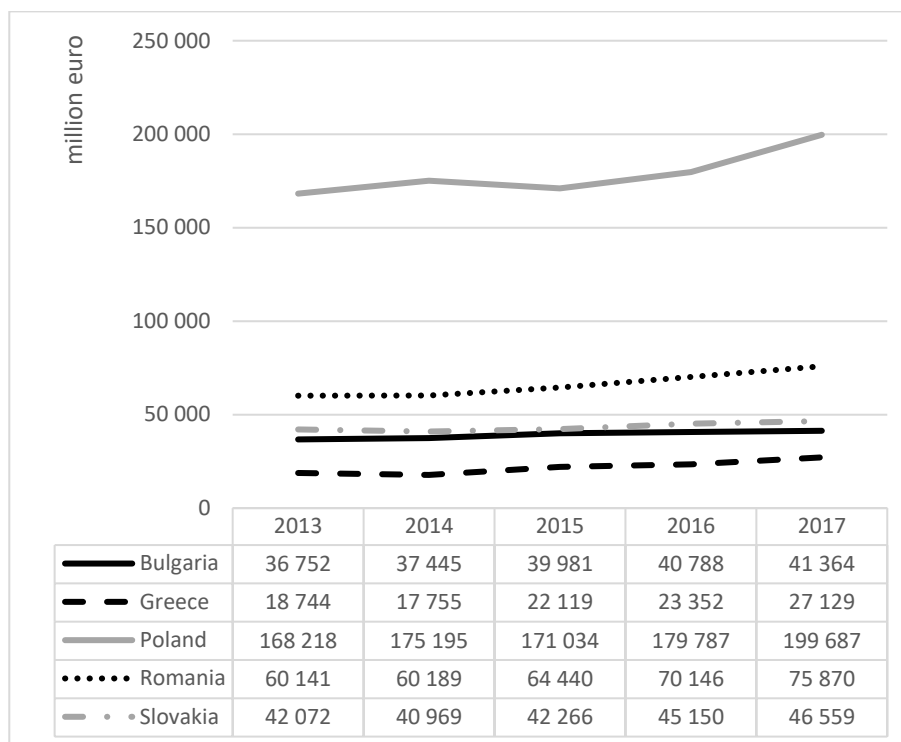
JEL: E22, F21.

The study of FDI in some of the Countries in South and Eastern Europe and the Black Sea Region Bulgaria, Greece, Poland, Romania and Slovakia is concentrated on several key indicators of the FDI such as their amount, FDI to GDP ratio, FDI from the EU to total FDI ratio, classification of FDI by partner countries and FDI by economic activity. The countries included in the analysis are EU Member States. The period is from January 2013 to December 2017 inclusive. In this study official statistics of the Eurostat have been used. For 2017 no data are available for the FDI by economic activity with the exception of Romania.

The FDI rose gradually and almost and continuously till the end of the analyzed period in all the analyzed countries. In Greece and Poland the increase of the indicator values was the biggest in the period under review although during some years FDI declined. An exception from this trend was also Slovakia, where the indicator also decreased its values in 2014. From the figure it can be seen that the highest indicator values were reached for Poland and Romania. Its value was highest in 2017 in Bulgaria of 41.363 million euro, as this, compared with the registered 36.752 million euro in 2013, was a rise of nearly 5 million euro. It has to be noted that the values of FDI in Bulgaria and the other countries changed to a large extent in parallel in the 2013 – 2017 period. A recommendation can be made that this positive trend should continue and measures should be undertaken by the countries' authorities in order to stimulate FDI to rise at a faster pace.

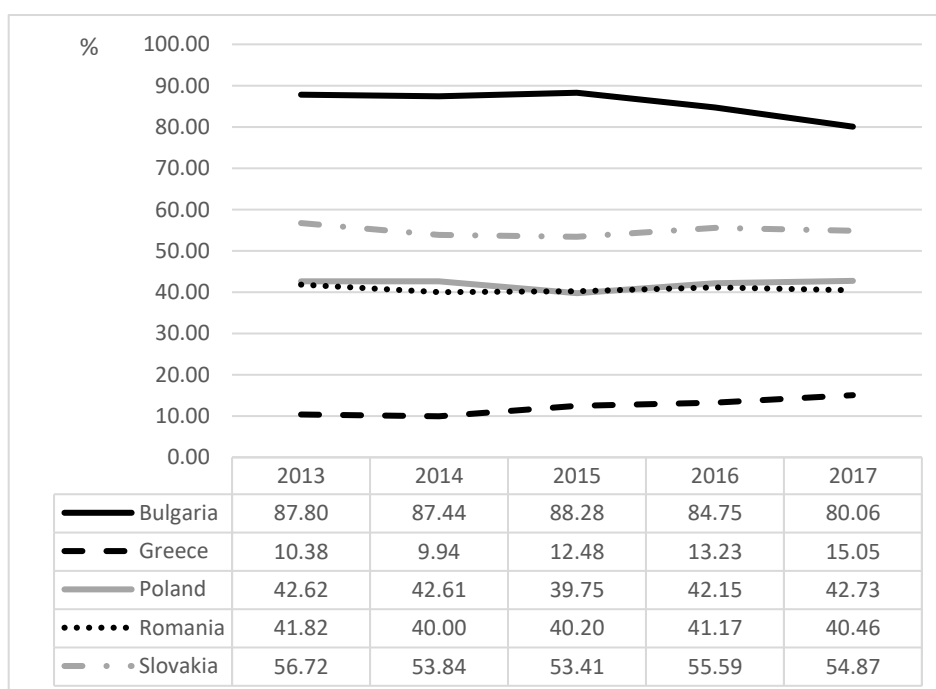
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FIGURE 1
Total FDI in Bulgaria, Greece, Poland, Romania and Slovakia
in the period 2013 – 2017 (million euro)



Source: <https://ec.europa.eu/eurostat/data/database>.

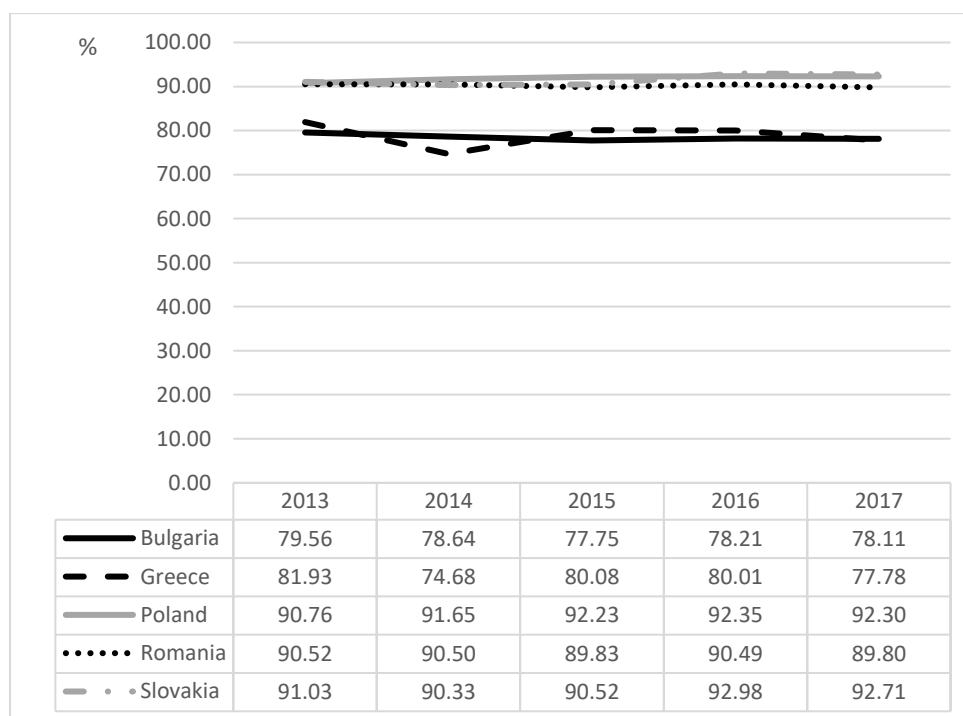
FIGURE 2
FDI to GDP ratio in Bulgaria, Greece, Poland, Romania and Slovakia
in the period 2013 – 2017 (%)



Source: <https://ec.europa.eu/eurostat/data/database>.

The values of the FDI to GDP ratio differ substantially for the countries under review. The values of the indicator in Bulgaria exceeded over twofold those of Poland and Romania, and over eightfold higher than the average values for Greece. The indicator FDI to GDP ratio in our country was highest in value. The values of the indicator for Greece are much lower compared with those for the other countries, but from 2013 to the end of the reviewed period, the values of the indicator for Greece increased each year with the exception of 2014, when the FDI to GDP ratio decreased. It should be noted that the values of that indicator of the analysed countries did not change in parallel. In Greece it increased, a decrease was observed in Bulgaria, and in the other countries remained at almost unchanged levels.

FIGURE 3
FDI from the EU to total FDI ratio in Bulgaria, Greece, Poland, Romania and Slovakia
for the period 2013 – 2017 (%)



Source: <https://ec.europa.eu/eurostat/data/database>.

All the countries in the analysis are EU Member States. The values of the share of FDI from the EU in the total amount of FDI clearly reflects this fact. Between 80 and 90% of the FDI came from the European Union. The indicator values remained at relatively close values during the analyzed period in these countries. Bulgaria had lowest levels of the FDI from the EU to total FDI ratio followed by Greece. The highest share of FDI was attracted from the European Union in Poland and Slovakia.

TABLE 1
Partner countries with highest value of FDI in Bulgaria
in the period 2013 – 2017 (million euro)

Partner	2013	2014	2015	2016	2017
European Union - 28 countries	29,241	29,449	31,084	31,902	32,309
Euro area (19 countries)	24,846	24,814	26,366	27,104	27,755
Netherlands	7,515	6,205	6,687	6,612	7,166
Austria	4,723	5,006	5,437	4,074	3,966
Germany	1,963	2,276	2,474	2,792	2,800
Italy	756	892	952	2,439	2,497
United Kingdom	1,999	2,230	2,248	2,335	2,277
Greece	2,574	2,477	2,631	2,699	2,229
Cyprus	2,109	2,262	2,108	2,222	2,190
Russia	1,820	1,957	2,062	2,042	2,035
Luxembourg	1,340	1,312	1,506	1,524	1,581
Switzerland	1,097	1,269	1,361	1,278	1,481
Belgium	535	608	675	783	1,302
France	734	945	987	1,096	1,140
Spain	1,001	1,140	1,148	1,103	1,096
Hungary	949	962	980	927	949
United States	1,043	939	1,009	985	926
Turkey	418	600	707	792	869

Source: <https://ec.europa.eu/eurostat/data/database>.

The partner countries with highest value of FDI in Bulgaria in the period 2013 – 2017 are EU member countries. These were the Netherlands with 7,166 million euro in 2017, Austria with much lower value of FDI of 3,966 million euro in 2017, Germany, Italy, the United Kingdom and Greece. Amongst the non-EU Member States high values of FDI from Russia, Switzerland, the United States and Turkey were observed.

TABLE 2
Partner countries with highest value of FDI in Greece
in the period 2013 – 2017 (million euro)

Partner	2013	2014	2015	2016	2017
European Union - 28 countries	15,357	13,260	17,712	18,685	21,100
Euro area (19 countries)	-	-	17,171	18,375	20,593
Germany	4,568	4,557	5,106	4,958	5,976
Luxembourg	5,001	4,812	4,378	5,346	5,729
Netherlands	3,460	3,676	4,575	4,757	5,087
Switzerland	1,165	1,162	1,636	1,830	2,819
France	2,188	1,513	1,892	1,389	1,486
Belgium	921	990	1,301	1,376	1,275
Italy	761	774	845	972	1,000
Spain	999	1,033	767	777	852
United States	750	790	733	541	813
Canada	66	935	688	561	720
Hong Kong	106	390	332	545	589
Bermuda (UK)	325	378	272	475	475
Austria	245	268	234	334	410
Ireland	127	389	346	390	407
United Kingdom	-264	-705	314	101	230

Source: <https://ec.europa.eu/eurostat/data/database>.

The leading partner countries with highest value of FDI in Greece for the period under review were Germany with 5,976 million euro in 2017, Luxembourg with 5,729 million euro in 2017, the Netherlands, Switzerland, France and Belgium. Most of these countries are EU Member States and all of them are European countries. Other partner countries were the United States, Canada and Hong Kong.

TABLE 3
Partner countries with highest value of FDI in Poland
in the period 2013 – 2017 (million euro)

Partner	2013	2014	2015	2016	2017
European Union - 28 countries	152,673	160,564	157,753	166,037	184,320
Euro area (19 countries)	136,223	145,226	140,155	148,368	164,376
Netherlands	27,172	29,874	31,777	35,081	38,469
Germany	28,067	28,123	25,768	29,932	34,907
Luxembourg	17,626	19,869	22,163	22,932	27,659
France	20,294	20,080	18,367	18,630	18,313
Spain	11,051	11,462	10,377	10,301	12,033
United Kingdom	7,145	7,021	8,913	9,478	9,537
Austria	6,649	6,424	6,304	7,288	8,458
Cyprus	6,259	7,887	6,111	5,942	7,154
Belgium	3,482	5,086	5,234	5,997	6,376
Switzerland	4,406	4,007	4,847	4,805	5,914
Italy	9,376	9,479	8,472	7,457	5,229
United States	7,041	6,279	4,405	4,550	4,775
Sweden	5,612	4,423	3,905	3,590	4,218
Denmark	2,878	2,999	3,262	3,138	3,323
Hungary	568	659	835	749	1,587
Portugal	1,816	1,898	1,089	1,031	1,549
Ireland	1,341	1,922	1,960	1,260	1,519
Finland	1,589	1,542	1,463	1,363	1,400
Norway	1,015	1,070	704	897	1,337

Source: <https://ec.europa.eu/eurostat/data/database>.

The highest value of FDI in Poland were from the Netherlands - 38,469 million euro in 2017, Germany with 34,907 million euro in 2017, Luxembourg, France, Spain, the United Kingdom. Non-EU Member States that have made substantial amount of FDI were Switzerland, The United States, Norway, South Korea, Japan.

TABLE 4
Partner countries with highest value of FDI in Romania
in the period 2013 – 2017 (million euro)

Partner	2013	2014	2015	2016	2017
Euro area (19 countries)	-	-	53,625	57,967	-
European Union - 28 countries	54,440	54,468	57,883	63,473	68,129
Netherlands	14,670	14,222	16,101	17,069	19,643
Germany	6,765	7,481	7,991	9,261	9,706
Austria	11,472	9,693	9,132	8,340	9,578
Italy	2,825	2,776	3,350	4,430	4,740
France	4,581	4,162	4,350	4,873	4,732
Cyprus	2,684	4,274	4,422	4,528	4,648
Luxembourg	1,699	2,151	2,701	2,989	3,543
Switzerland	1,949	2,150	2,232	2,547	3,145
Greece	1,941	1,645	1,747	1,925	1,724
Belgium	1,497	1,281	1,444	1,914	1,584
Spain	1,114	1,471	1,423	1,710	1,560
United Kingdom	1,480	1,508	1,346	1,703	1,452
Czechia	1,085	838	652	1,192	1,431
United States	1,089	1,081	1,627	1,346	1,128

Source: <https://ec.europa.eu/eurostat/data/database>.

The main Partner countries with highest value of FDI in Romania in the period 2013 – 2017 are countries from the European Union such as the Netherlands with 19,643 million euro in 2017, Germany with 9,706 million euro in 2017, Austria, Italy, France. Countries from outside the European Union included Switzerland and the United States.

TABLE 5
Partner countries with highest value of FDI in Slovakia
over the period 2013 – 2017 (million euro)

Partner	2013	2014	2015	2016	2017
European Union - 28 countries	38,297	37,008	38,257	41,980	43,167
Euro area (19 countries)	:	29,421	30,293	32,903	32,941
Netherlands	9,255	8,087	8,338	12,553	11,905
Austria	6,932	6,421	7,086	6,509	6,080
Czechia	4,509	4,215	4,167	5,145	5,005
Luxembourg	1,934	3,420	3,557	3,134	3,432
Germany	3,284	3,505	2,825	2,529	2,974
South Korea	2,470	2,623	2,967	2,903	2,948
Hungary	2,078	2,209	2,400	2,464	2,646
Belgium	1,489	2,050	1,989	2,220	2,424
Italy	4,159	2,628	3,123	2,193	2,187
Cyprus	1,189	1,126	1,271	1,716	1,632
United Kingdom	388	445	452	518	1,092
Sweden	332	243	237	333	915
France	947	960	842	837	915
Spain	491	505	540	618	729
Switzerland	705	696	660	563	619

Source: <https://ec.europa.eu/eurostat/data/database>.

The leading partner countries in terms of value of FDI in Slovakia were the Netherlands with 11,905 million euro in 2017, Austria with 6,080 million euro in 2017, Czechia, Luxembourg, Germany and Hungary. Countries that are not from the European Union were South Korea and Switzerland.

TABLE 6
FDI by economic activity in Bulgaria
in the period 2013 – 2016 (million euro)

Economic activity	2013	2014	2015	2016
Services	19,802	23,361	25,217	25,810
Real estate activities	6,682	9,801	9,904	9,718
Manufacturing	6,042	6,589	6,769	6,966
Financial and insurance activities	4,763	6,114	6,590	6,690
Wholesale and retail trade; repair of motor vehicles and motorcycles	3,324	4,444	4,969	5,486
Financial service activities, except insurance and pension funding	4,427	5,136	5,542	5,361
Electricity, gas, steam and air conditioning supply	0	3,063	3,190	3,213
Wholesale trade, except of motor vehicles and motorcycles	2,600	2,965	3,073	3,171
Manufacture of petroleum, chemical, pharmaceutical, rubber and plastic products	2,486	2,518	2,620	2,642
Retail trade, except of motor vehicles and motorcycles	512	1,269	1,647	2,057
Manufacture of coke and refined petroleum products	1,804	1,652	1,764	1,783
Professional, scientific and technical activities	1,482	1,338	1,467	1,420
Manufacture of metal and machinery products, except electrical equipment	1,050	1,323	1,314	1,396
Construction	2,452	1,134	1,325	1,342
Other manufacturing (C15, C23, C27, C31, C32, C33)	1,109	1,259	1,304	1,253
Manufacture of basic metals and fabricated metal products, except machinery and equipment	760	834	865	895
Manufacture of food products; beverages and tobacco products	825	882	859	857
Information and communication	1,971	277	785	817
Insurance, reinsurance and pension funding, except compulsory social security	210	787	844	765
Accommodation and food service activities	868	625	638	678
Activities of head offices; management consultancy activities	582	478	468	622
Manufacture of chemicals and chemical products	532	669	641	606
Activities auxiliary to financial services and insurance activities	125	190	204	564
Manufacture of textiles, wearing apparel, wood and paper products; printing and reproduction	468	450	484	564
Transportation and storage	336	402	486	519
Transport and storage except postal and courier activities	335	380	474	507
Management consultancy activities	367	292	275	426
Other professional, scientific and technical activities; veterinary activities	482	354	384	380

Source: <https://ec.europa.eu/eurostat/data/database>.

FDI with highest values in Bulgaria in the period 2013 – 2016 are made in the area of services - 25,810 million euro in 2016, real estate - 9,718 million euro in 2016, manufacturing, financial and insurance activities, wholesale and retail trade, financial service, electricity, gas, steam and air conditioning supply.

TABLE 7
FDI by economic activity in Greece
in the period 2013 – 2016 (million euro)

Economic activity	2013	2014	2015	2016
Services	7,249	8,123	11,310	11,610
Manufacturing	8,311	6,042	6,962	7,595
Wholesale and retail trade; repair of motor vehicles and motorcycles	4,762	4,567	4,990	5,168
Information and communication	4,283	4,366	4,021	3,926
Telecommunications	4,190	4,265	3,913	3,777
Manufacture of petroleum, chemical, pharmaceutical, rubber and plastic products	3,112	2,415	2,701	2,856
Retail trade, except of motor vehicles and motorcycles	2,295	2,287	2,552	2,606
Electricity, gas, steam and air conditioning supply	2,022	2,494	2,740	2,400
Wholesale trade, except of motor vehicles and motorcycles	2,095	1,998	2,081	2,177
Real estate activities	1,354	1,406	2,377	1,996
Manufacture of food products; beverages and tobacco products	3,325	1,800	1,707	1,771
Transportation and storage	610	730	805	1,678
Transport and storage except postal and courier activities	606	727	801	1,671
Insurance, reinsurance and pension funding, except compulsory social security	733	1,090	1,079	1,596
Manufacture of metal and machinery products, except electrical equipment	1,165	1,096	1,364	1,448
Other manufacturing (C15, C23, C27, C31, C32, C33)	575	602	1,057	1,396
Manufacture of basic metals and fabricated metal products, except machinery and equipment	948	951	1,200	1,316
Manufacture of coke and refined petroleum products	1,387	818	954	1,197
Mining and quarrying	496	430	356	1,160
Arts, entertainment and recreation	1,606	1,580	1,160	1,133
Gambling and betting activities; sporting and other recreational activities	1,203	1,358	981	986
Accommodation and food service activities	734	767	746	830
Manufacture of basic pharmaceutical products and pharmaceutical preparations	803	737	873	779
Manufacture of chemicals and chemical products	774	715	747	751
Activities of holding companies	800	832	735	680
Administrative and support service activities	275	558	607	675
Warehousing and support activities for transportation	135	161	193	534
Land transport and transport via pipelines	62	35	31	521

Source: <https://ec.europa.eu/eurostat/data/database>.

The economic sectors in which the highest levels of FDI in Greece were observed were services, manufacturing, wholesale and retail trade, information and communication, telecommunications, manufacture of petroleum, chemical, pharmaceutical, rubber and plastic products, electricity, gas, steam and air conditioning supply, real estate.

TABLE 8
FDI by economic activity in Poland
for the period 2013 – 2016 (million euro)

Economic activity	2013	2014	2015	2016
Services	99,944	103,511	99,645	109,076
Manufacturing	49,517	50,813	55,084	56,134
Financial and insurance activities	41,024	40,273	31,093	32,950
Financial service activities, except insurance and pension funding	36,924	35,827	26,547	28,790
Wholesale and retail trade; repair of motor vehicles and motorcycles	23,882	24,372	26,122	26,901
Real estate activities	10,831	12,203	14,621	16,425
Professional, scientific and technical activities	9,496	10,116	11,631	14,712
Wholesale trade, except of motor vehicles and motorcycles	12,529	13,216	14,650	14,376
Activities of head offices; management consultancy activities	8,278	8,680	9,770	12,522
Information and communication	8,235	10,163	9,426	11,902
Manufacture of food products; beverages and tobacco products	9,585	9,385	10,136	11,188
Manufacture of motor vehicles, trailers, semi-trailers and of other transport equipment	8,515	9,057	10,296	10,987
Retail trade, except of motor vehicles and motorcycles	9,785	9,348	9,692	10,357
Manufacture of metal and machinery products, except electrical equipment	9,221	9,654	9,747	10,331
Other manufacturing (C15, C23, C27, C31, C32, C33)	7,745	7,774	8,828	9,008
Manufacture of petroleum, chemical, pharmaceutical, rubber and plastic products	10,270	9,652	10,016	8,994
Construction	7,232	7,773	8,431	8,556
Management consultancy activities	6,096	6,213	6,515	7,431
Manufacture of basic metals and fabricated metal products, except machinery and equipment	6,262	6,563	6,405	7,085
Telecommunications	4,091	4,902	4,376	6,093
Manufacture of textiles, wearing apparel, wood and paper products; printing and reproduction	4,183	5,291	6,060	5,627
Electricity, gas, steam and air conditioning supply	5,645	5,580	6,067	5,154
Activities of head offices	2,182	2,467	3,254	5,091
Manufacture of wood, paper, printing and reproduction	3,730	4,805	5,473	5,014

Source: <https://ec.europa.eu/eurostat/data/database>.

FDI in Poland for the analyzed period were concentrated mainly in services, manufacturing, financial and insurance activities, financial service, wholesale and retail trade, real estate, professional, scientific and technical activities, activities of head offices, information and communication.

TABLE 9
FDI by economic activity in Romania
in the period 2013 – 2017 (million euro)

Economic activity	2013	2014	2015	2016	2017
Services	27,671	26,850	30,502	32,839	34,901
Manufacturing	18,705	19,273	20,479	22,446	24,256
Wholesale and retail trade; repair of motor vehicles and motorcycles	6,743	7,057	7,861	8,998	10,448
Financial and insurance activities	8,523	7,797	8,429	8,848	9,400
Financial service activities, except insurance and pension funding	7,464	7,046	7,589	7,891	8,400
Construction	2,290	2,515	3,527	4,475	6,021
Electricity, gas, steam and air conditioning supply	6,245	6,254	5,888	6,234	5,992
Manufacture of motor vehicles, trailers, semi-trailers and of other transport equipment	3,450	3,243	3,804	4,712	5,627
Real estate activities	3,616	3,400	4,351	5,323	5,594
Manufacture of metal and machinery products, except electrical equipment	4,245	4,654	4,772	5,125	5,581
Wholesale trade, except of motor vehicles and motorcycles	3,682	3,873	4,107	4,583	5,204
Manufacture of petroleum, chemical, pharmaceutical, rubber and plastic products	3,544	3,419	3,859	4,495	4,885
Manufacture of motor vehicles, trailers and semi-trailers	3,043	2,847	3,378	4,216	4,685
Retail trade, except of motor vehicles and motorcycles	2,675	2,788	3,317	3,696	4,591
Other manufacturing (C15, C23, C27, C31, C32, C33)	2,976	3,257	3,394	3,358	3,284
Manufacture of basic metals and fabricated metal products, except machinery and equipment	2,489	2,711	2,641	2,870	3,154
Information and communication	4,141	3,597	3,691	3,630	3,150
Professional, scientific and technical activities	2,276	2,158	2,408	2,271	2,676
Manufacture of food products; beverages and tobacco products	2,380	2,430	2,199	2,383	2,517
Manufacture of textiles, wearing apparel, wood and paper products; printing and reproduction	2,111	2,270	2,452	2,373	2,360
Agriculture, forestry and fishing	1,282	1,504	1,662	1,837	2,273
Mining and quarrying	3,530	3,345	1,953	1,832	1,967
Manufacture of rubber and plastic products	1,462	1,468	1,458	1,707	1,940
Telecommunications	3,393	2,771	2,726	2,477	1,936

Source: <https://ec.europa.eu/eurostat/data/database>.

Economic sectors with the highest share in FDI in Romania in the period 2013 – 2017 were services, manufacturing, wholesale and retail trade, financial and insurance activities, financial service, construction, electricity, gas, steam and air conditioning supply, manufacture of motor vehicles, trailers, semi-trailers and of other transport equipment, real estate, manufacture of metal and machinery products, manufacture of petroleum, chemical, pharmaceutical, rubber and plastic products.

TABLE 10
FDI by economic activity in Slovakia
in the period 2013 – 2016 (million euro)

Economic activity	2013	2014	2015	2016
Services	21,560	24,856	25,613	26,349
Manufacturing	13,612	13,690	14,055	14,570
Financial and insurance activities	10,281	10,047	10,320	10,482
Financial service activities, except insurance and pension funding	8,826	8,764	9,186	9,007
Manufacture of metal and machinery products, except electrical equipment	4,251	4,387	4,451	4,583
Wholesale and retail trade; repair of motor vehicles and motorcycles	4,050	3,716	3,800	4,121
Manufacture of petroleum, chemical, pharmaceutical, rubber and plastic products	2,630	3,061	3,241	3,403
Electricity, gas, steam and air conditioning supply	6,069	1,521	1,790	3,305
Manufacture of motor vehicles, trailers, semi-trailers and of other transport equipment	3,323	2,895	3,009	3,210
Manufacture of motor vehicles, trailers and semi-trailers	3,323	2,893	3,006	3,150
Administrative and support service activities	223	3,087	2,648	2,996
Real estate activities	2,627	3,189	3,021	2,850
Manufacture of basic metals and fabricated metal products, except machinery and equipment	2,410	2,475	2,399	2,634
Employment, travel agency, security and investigation, service and landscape, office administrative and support activities	-83	2,785	2,332	2,631
Other manufacturing (C15, C23, C27, C31, C32, C33)	2,094	2,068	1,966	2,127
Information and communication	1,716	1,592	2,177	2,032
Wholesale trade, except of motor vehicles and motorcycles	1,892	1,897	1,852	1,992
Retail trade, except of motor vehicles and motorcycles	1,847	1,594	1,684	1,878
Transportation and storage	1,119	1,165	1,705	1,739
Telecommunications	1,416	1,314	1,905	1,735
Transport and storage except postal and courier activities	1,103	1,151	1,690	1,702
Professional, scientific and technical activities	1,152	1,626	1,469	1,552
Manufacture of coke and refined petroleum products	1,263	1,335	1,459	1,504
Insurance, reinsurance and pension funding, except compulsory social security	1,466	1,277	1,159	1,497
Land transport and transport via pipelines	811	812	1,335	1,346
Activities of head offices; management consultancy activities	719	1,238	1,131	1,286
Manufacture of machinery and equipment n.e.c.	1,057	1,088	1,167	1,201
Manufacture of rubber and plastic products	1,008	1,048	1,063	1,143

Source: <https://ec.europa.eu/eurostat/data/database>.

The leading economic sectors in FDI in Slovakia were services, manufacturing, financial and insurance activities, financial service, manufacture of metal and machinery products, wholesale and retail trade, manufacture of petroleum, chemical, pharmaceutical, rubber and plastic products, electricity, gas, steam and air conditioning supply, manufacture of motor vehicles, trailers, semi-trailers and of other transport equipment, administrative and support service activities, real estate.

CONCLUSION

The conclusions which can be made from the analysis of the FDI in some of the Countries in South and Eastern Europe and the Black Sea Region and member states of the European Union Bulgaria, Greece, Poland, Romania and Slovakia in the period 2013 – 2017 are as follows:

- FDI grew till the end of the analyzed period in all the countries in the analysis;
- FDI changed in parallel during the period under review in all the countries;
- the values of the share of FDI in GDP differ considerably for the countries in the analysis. The values of the ratio in Bulgaria were highest;
- the share of FDI from the European Union in the total FDI in all analyzed countries is very high;
- most FDI in Bulgaria are made by partner countries from the European Union;
- the main partner countries as far as FDI are concerned are EU Member States – the Netherlands, Germany, Austria, Belgium;
- it should be noted that the share of countries outside the European Union in the FDI in Greece and Poland is higher and their number was larger. Most of partner countries in Romania are from the European Union;
- the main economic sectors with largest shares in FDI in the countries, included in the analysis, were services, manufacturing, wholesale and retail trade;
- the conclusion can be made that the countries in South and Eastern Europe and the Black Sea Region should strengthen cooperation in the area of FDI.

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Approaches for Accounting and Financial Reporting of Initial Coin Offering (ICO)

Borislav Boyanov¹

ABSTRACT: The article treats Initial Coin Offering (ICO) as an external source for the capital provision of a new company or a new investment project. The essence of ICO and the initial offering of tokens is examined. A distinction has been made between cryptocurrencies and tokens, with the main differences between them. ICO vs IPO and ICO vs venture capital funds are outlined. The article presents a classification of the tokens including their peculiarities.

The author used the methods of analysis, synthesis, description, systematization to explore the economic, financial and technological specificities of tokens to achieve the main goal of the article - developing approaches to their accounting reporting and presentation in financial statements.

The article defends the thesis that it is possible to apply a global accounting model for ICOs reporting. This model has two main aspects: a) from the point of view of the token issuers and b) from the point of view of the companies that use the tokens as assets held for trading or for investment purposes. These approaches have been developed on the assumption that there are no regulatory limitations on the ICOs activities.

There is also a critical analysis of the existing ICO weaknesses as well as the risks to their issuers and to the individuals and companies that invest in ICO start-ups and projects.

Keywords: ICO, token, reporting, accounting model.

JEL: M40, M41, M49.

INTRODUCTION

Initial Coin Offering is an innovative, high-risk instrument for providing liquidity and greater efficiency of the investor and start-up capital markets. In essence, for every ICO project, a specific company or individual *issues digital coins or tokens and sells them in exchange for fiat money, such as the euro or more often virtual currencies.*² Tokens and coins represent crypto assets for their holders. Coins and tokens are not the same crypto assets as there are differences in their *functionality but, in practice, the terms can be used interchangeably, because no universally accepted definition of either exists. Currently, the term ‘coin’ generally refers to a cryptographic asset that has the express purpose of acting solely as a medium of exchange, while the term ‘token’ refers to an asset that gives the holder additional functionality or utility.*³ Crypto-assets are generally defined as a cryptographically secured digital representation of value or contractual rights that is powered by forms of distributed ledger technology and can be stored, transferred or traded electronically. The ICO process uses Distributed Ledger Technology (DLT). This technology is a set of technological

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² ESMA highlights ICO risks for investors and firms, Press release, 13.11.2017.

³ PWC. A look at current financial reporting issues, September, 2018, p. 2.

solutions that enables a single, sequenced, standardized and cryptographically-secured record of activity to be safely distributed to, and acted upon by, a network of varied participants. This record could contain transactions, asset holdings or identity data. This contrasts with a traditional centralized ledger system, owned and operated by a single trusted entity.

CLASSIFICATION OF TOKENS

In chronological plan, the rise of ICO in 2017 and early 2018 was unprecedented because of entirely new method of "instant" raising huge funds for financing investment projects. However, a very large share of ICO proved fraud and did not fulfill their promises, which led to the rapid decline of ICO in the second half of 2018. Despite the successes and failures of the ICO, there has been an evolutionary transition of conventional financial securities into digital tokens on a blockchain. Within this short period of about two years, an extremely large number of ICO projects have been created that provide different types of tokens to their participants. This creates the need to systematize and categorize the tokens. In this process quickly the ICO issuers quickly became involved, as well as investors, national and international regulatory bodies, representatives of the academic community.

According to the independent Swiss financial regulator FINMA there is no generally recognized terminology for the classification of tokens either in Switzerland or internationally. FINMA categorises tokens into three types, as follow:

- **Payment tokens** are synonymous with cryptocurrencies and have no further functions or links to other development projects. Tokens may in some cases only develop the necessary functionality and become accepted as a means of payment over a period of time.
- **Utility tokens** are tokens which are intended to provide digital access to an application or service.
- **Asset tokens** represent assets such as participations in real physical underlyings, companies, or earnings streams, or an entitlement to dividends or interest payments. In terms of their economic function, the tokens are analogous to equities, bonds or derivatives.

UK Financial Conduct Authority categorised cryptoassets into three types of tokens:⁴

- **Exchange tokens** - these are not issued or backed by any central authority and are intended and designed to be used as a means of exchange. They are, usually, a decentralised tool for buying and selling goods and services without traditional

⁴ FCA. Guidance on Cryptoassets. Consultation Paper CP19/3*. January 2019. p. 8.

intermediaries. These tokens are usually outside the perimeter.

- **Security tokens** - these are tokens with specific characteristics that mean they meet the definition of a Specified Investment like a share or a debt instrument.
- **Utility tokens** - these tokens grant holders access to a current or prospective product or service but do not grant holders rights that are the same as those granted by Specified Investments. Although utility tokens are not Specified Investments, they might meet the definition of e-money in certain circumstances (as could other tokens), in which case activities in relation to them may be within the perimeter.

According EFRAG's *Research project on Crypto-assets Briefing paper* there are currently three main categories of tokens, however these categories are not mutually exclusive but may overlap:

- **Payment tokens** - Payment tokens are used as a means of payment for the acquisition of goods or services. These tokens are basically crypto currencies.
- **Utility tokens** - provide access to the issuer's product, service or ecosystem (including discounts on products or services) and *does not* offer the bearer any entitlement or rights of ownership. Although there might be exceptions, a typical characteristic of a utility token is that the product or service to which it is linked when it is first issued through an ICO is not yet developed or is under development. The stage of development differs from case-to-case. From an accounting perspective, it would be necessary to understand the underlying rights and obligations arising from the various utility tokens.
- **Asset-backed tokens (includes security tokens).**

Lars Kluhn, Nicolas Parhofer and Daniel Resas Tokens consider that offered in ICOs can roughly be placed into three functional categories.⁵

- **Currency tokens** are intended to serve as a cross-platform means of payment and often have little or no functionality apart from their transferability. Examples for such tokens are Bitcoin or Bitcoin Cash.
- **Investment tokens** are designed to resemble traditional securities. They are rights to future (crypto-) cash flows and may come with voting rights etc.

⁵ Lars Kluhn, Nicolas Parhofer, Daniel Resas. **Initial Coin Offerings (ICOs)**, Economics and Regulation, 2018, p. 8.

Utility tokens can only be used in a platform's native network. They grant (exclusive) access to the services available on the token issuer's platform.

The literature review that was made shows, that institutions and researchers of ICO group together around three categories of tokens based on their characteristics and functions. And according to the author, it is appropriate to organize the tokens into three categories, namely: **currency tokens, security tokens and utility tokens**. An important conclusion is that to understand tokens it is not necessary to understand the technical details of digital protocols, programming languages and cryptographic hash functions. It is more important to understand the economics of tokens and its accounting reporting

INITIAL COIN OFFERING (ICO) VS INITIAL PUBLIC OFFERING (IPO) AND VENTURE CAPITAL FUNDS

In an IPO or venture capital fundraising round, the company sells its shares or equity in exchange for additional capital from investors. Newly raised capital is used to develop the company's operations and to increase its equity. Investors in the company benefit from the increase in equity through the generation of larger profits. The advantages of investing in ICOs are numerous. First and foremost, *ICOs offer you access to the ground floor of companies that have the potential to revolutionize entire industries, if not the entire world. That directly equates to higher return on investment when things go right. Additionally, because of the volatility and frequent uniformity of the cryptocurrency market, if cryptocurrency and blockchain as a whole are on the rise, people will be on the lookout for all sorts of cryptocurrencies, which will cause tokens purchased in ICO events to spike solely due to natural blockchain-related hype⁶.*

ACCOUNTING MODEL FOR ICOS REPORTING

Accounting model for ICOs reporting has two aspects a) cryptographic assets held for own account b) cryptographic assets held on behalf of third parties. These approaches have been developed on the assumption that there are no specific regulatory limitations on the ICOs activities, but in terms of the applicable IFRS as a global accounting framework.

At present, globally, there is no single, generally accepted accounting framework for recognizing and reporting the variety of cryptographic assets. By using the methods of systematization and aggregation of different types of crypto assets, it is possible to classify them for accounting purposes. In determining the types and approaches to account the tokens

⁶ <https://roninai.com/ico-ipo-investment-strategy/>.

should answer two questions:

- *What is the main purpose of the tokens?*
- *How the tokens get their inherent value?*

The answers to these two questions are summarized in Table 1.

TABLE 1
Determining the types and approaches to account for tokens

Subset	Purpose	Inherent Value
Currency token	Cryptocurrencies are digital tokens or coins based on blockchain technology, such as Bitcoin. They currently operate independently of a central bank and are intended to function as a medium of exchange.	None inherent value. Derives its value based on supply and demand.
Utility token	Utility tokens are digital tokens based on blockchain technology that provide users with access to a product or service and derive their value from that right. Utility tokens give holders no ownership in a company's platform or assets and, although they might be traded between holders, they are not primarily used as a medium of exchange.	Value is derived from the demand for the issuer's service or product.
Security token	Security tokens are digital tokens based on blockchain technology that are similar in nature to traditional securities. They can provide an economic stake in a legal entity: sometimes a right to receive cash or another financial asset, which might be discretionary or mandatory; sometimes the ability to vote in company decisions and/or a residual interest in the entity.	Value is derived from the success of the entity, since the holder of the token shares in future profits or receives cash or another financial asset.

Source: PWC, Specific subsets of cryptographic assets.

Cryptographic Assets Held for Own Account

As there are no accounting standards and generally accepted rules of accounting and financial statement presentation of cryptographic assets in order to create and maintain an ICO it is necessary each entity to apply carefully and consistently the accounting models and practices set out in the separate IFRSs or in other applicable accounting regulations.

Accounting of cryptographic assets as already stated depends on their inherent value and purpose. From the perspective of an entity that owns cryptographic assets on for own account, the same should be accounted:

- **Currency token** – when comparing their characteristics with the applicable IFRSs, it is determined that it is most appropriate to be accounted as inventory under IAS 2 Inventories as they partially meet the definition of inventories as they are assets for which IAS 2 - Inventories do not require that they have a physical substance, but can not meet the requirement to be hold for sale in the ordinary course of business. Alternatively, a currency token is appropriate to be accounted for as intangible assets

in accordance with IAS 38 - Intangible Assets because they are most closely aligned with the definition and criteria for recognition of an intangible asset because: (a) they are not cash and cash equivalents; b) have no physical substance; c) the value of the virtual currency can be measured reliably and it is probable that the enterprise will receive the expected future economic benefits; d) virtual currencies can be divided or separated from the enterprise, sold, transferred, exchanged.

- **Utility and security token** – these tokens, which give their holders a contractual right to receive a certain sum of money or other financial assets should be accounted for as **financial assets other than cash**. For the classification and valuation of these types of tokens that meet the definition of a financial asset, the enterprises must follow the guidance in IFRS 9 Financial Instruments. Depending on the goals of the management of the enterprise for which it uses the tokens, as well as the professional judgment of the accountants, they can be accounted for as inventories, intangible assets, receivables in the form of advances, or stand-alone assets. **Utility tokens** generally entitle their holders to receive goods or services at some future time or period. In this connection, these tokens should be accounted for as intangible assets or as short-term receivables from suppliers in connection with advances made. **Security tokens** may entitle their holder to cash based on future platform gains or residual interest in net assets. Such rights may be discretionary or mandatory and may be accompanied by the opportunity to vote to influence decisions related to the main platform. Upon these circumstances, there may be a contractual right to cash or another financial asset, in which case these tokens meet the definition of a financial asset regulated by IFRS 9.

Cryptographic Assets Held on Behalf of Third Parties

ICO tokens might also be held by an entity on behalf of its customers. Some examples are⁷:

- An entity that operates a trading platform that enables its customers to exchange different cryptographic assets, or to exchange fiat currency for a cryptographic asset.
- An entity that offers custodian services for its customers' cryptographic assets. In this case, customers lodge cryptographic assets with the entity for safe keeping.

There are a wide variety of conditions for holding tokens. In most cases, there will be some indication that the tokens are held on behalf of customers, and that sets out what customers need to do to access or use these cryptographic assets. In these cases the key

⁷ PWC, Specific subsets of cryptographic assets, 2018.

accounting question is whether or not such holdings of tokens on behalf of customers should be recorded on or off the entity's balance sheet.

In determining whether an asset and a liability should be recognized in the balance sheet of an entity holding a cryptographic asset on behalf of customers, the following should be taken into account:

- Right to 'borrow' tokens to use for its own purposes. If the entity has such a right, it would seem that the definition of an asset set out above is met.
- Rights of customers to cryptographic assets held on their behalf if the entity is liquidated. In particular, if customers would have the status of unsecured creditors with no preferential claim on the cryptographic assets held by the entity on their behalf, this is a strong indicator that the cryptographic assets and the corresponding liability should be recognised on balance sheet⁸.

The accounting handling of tokens depends on what value or rights are granted by every token to its holder. The following conclusions can be drawn in this connection:

- If the token represents / entitles its holder for future transactions with its issuer, then the token essentially constitutes a **liability for its issuer**.
- If the token gives voting rights in decision making in the operational and strategic policy of the enterprise or gives the right to receive dividends in the future, then the token is more a classic /conventional/ expression of the **company's equity**.
- If the token does not grant future rights or privileges of its owner, then from the perspective of the issuer proceeds from its sale should be reported as **revenue**.

ACCOUNTING RISKS TO THE ICO

ESMA is alerting investors of the high risk of losing all of their invested capital as ICOs are very risky and highly speculative investments. The price of the coin or token is typically extremely volatile and investors may not be able to redeem them for a prolonged period. Another key risk stems from the fact that, depending on how they are structured, ICOs may fall outside of the scope of EU laws and regulations, in which case investors cannot benefit from the protection that these laws and regulations provide. ICOs are also vulnerable to the risk of fraud or money laundering.⁹

According to Gregory Simon, CEO of Loyyal, USA "current accounting approaches

⁸ PWC, Specific subsets of cryptographic assets, 2018.

⁹ ESMA highlights ICO risks for investors and firms, Press release, 13.11.2017.

towards ICOs are creating a potentially disastrous bubble for companies issuing them”.¹⁰

In order not to reach catastrophic consequences of inadequate accounting approaches and policies, theoreticians and practitioners in the field of accounting and financial audit should immediately begin a steady dialogue about applicable accounting principles, and to engage in this debate and all stakeholders engaged in the field of financial services.

ACCOUNTING ASPECT: REVENUE OR LIABILITY

Assuming that the issuance of tokens is an obligation of the enterprise to third parties and / or legal entities or revenue, then it should find a basis and rationale for their accounting. Internationally, this basis is IFRS 15 Revenue from Contracts with Customers. IFRS 15 introduces a five-step model for revenue recognition:

1. Identify the contract with the customer.
2. Identify the performance obligations in the contract.
3. Determine the transaction price.
4. Allocate the transaction price to the performance obligations in the contract.
5. Recognize revenue when (or as) the entity satisfies a performance obligation.

If we apply this model to utility tokens than:

1. Identify the contract with the customer - while each ICO has unique Terms of Use, generally speaking, most define the customer as the possessor of the token private key and the bearer of the token.

2. Identify the performance obligations in the contract - the performance obligation can generally be defined as the right to consume the company's goods or services (in most cases access to software) at some point in the future.

3. Determine the transaction price - the transaction price is usually an important part of the ICO Terms of Use as it helps to define the token as a utility token.

If it weren't steps four and five, then the ICO could easily be classified as revenue. Now that we know that an ICO can be classified as revenue, step four tells us when that revenue can actually be recognized in the issuer's financial statements. The fifth step is the real recognition of the at this future moment.

Revenue recognition under IFRS 15 is based **on the transfer of control**. Control is defined as the ability to direct the use and receipt of virtually the entire control over the other benefits associated with an asset. **The key point** is the issuer to determine whether the

¹⁰ Simon. G., The Impending Risks of ICO Accounting: Has avoiding treating Initial Coin Offerings as Equity..., October, 2017.

transfer of control occurs over time.

Revenue must be recognized at the time the obligation is fulfilled. This is most likely to happen when the token is presented to the publisher for the purchase of goods or services. As utility tokens cannot be recognized in accounting items as equity or current income, it remains an alternative to account for deferred income for subsequent periods and to report them in the balance sheet liability.

An Illustrative Example

Company “UTI” issues 50 000 tokens in an ICO on 1st May 2018. The market value at the time of issuance is 50 000 EURO or 1 EURO per token. The token is a utility token redeemable upon demand by the bearer for the company’s software product, when available. The token is listed and trades on exchanges. The company's current account has received EUR 50,000 from the sale of the tokens. As of December 31, 2018, the market price of the tokens was found to be 6 EURO per token.

Assuming that an entity applies IFRS as its accounting base, then their issuance will cause changes to two accounting entities. On the one hand, the funds in his current account in euro will increase, and on the other – as a **future performance obligation or deferred revenue liability. The token is equivalent to an unsecured, noninterest bearing promissory note issued in exchange for goods or services that may or may not exist yet¹¹.**

1st May 2018

↑ Current bank account in Euro - 50 000

↑ Deferred revenue liability - 50 000

31st December 2018

↑ Expenses from revaluation of financial instruments - 250 000

↑ Deferred revenue liability - 250 000

IFRS 15 requires the obligation to be stated in the balance sheet at the expected redemption value. Although the initial value of the ICO was EUR 50,000, due to the increase in the market value of the redemption rights, the issuer already assumes a liability with an equivalent value of EUR 250,000 from sales of software products.

In this example, the issuing company is not in a favourable position because when the tokens are redeemed the liabilities will be transformed into revenue, but without any tangible

¹¹ Simon. G., The Impending Risks of ICO Accounting: Has avoiding treating Initial Coin Offerings as Equity..., October, 2017.

remuneration received in return. The company is required to provide software products worth 250,000 Euro in return for which it will receive nothing.

Contrary to the expectations of issuers and investors, from an accounting point of view, the more attractive to the issuing company is the situation where the market price of the tokens decreases over time. As the market price goes down, the company can use its remaining cash from the ICO sale to buy back the tokens at a discount up to the original issue price.

If we go back to the example and assume that the price of 1 token is significantly reduced and as of 31.12.2018 is 0.10 Euro, and the issuing company decides to buy back 100% of the issued tokens.

31st December 2018

↓ Deferred revenue liability - 5000	↓ Current bank account in Euro - 5000
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31st December 2018

↓ Deferred revenue liability - 45000	↑ Income from revaluation of financial instruments - 45000
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CONCLUSION

New accounting standards are needed to meet the new paradigm created by blockchain technology. Globally the economic processes are evolving too quickly and this necessitates that accounting standards are adaptable and open to the application of emerging economic phenomena. Accounting theory and practice need a new generation of accounting standards to facilitate public and private blockchain adoption and reporting.

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Analysis of Consumer Preference for Olive Oil Attributes in Albania

Morena Boja¹

ABSTRACT: Consumers requirements today are always on the rise not only for the safe food, but their preference has change toward the products attribute too. The food marketing sector is responding to the ever-increasing consumer demand with respect to the attributes of food products. Customer preferences for olive oil are always on the rise. They create their preferences based on the best combination of tangible or intangible attributes. Nowadays, agri-food industry is facing many challenges, such as food safety, relationship between food and health and so on but the key of the success for the companies that produce or sell in the current market is to understand the consumer preference and to offer and adapt the product with their needed. The purpose of this study is to analyze the role that the attributes have on consumers' preferences when they purchase olive oil, focusing specially at five extrinsic attributes: price, certification, brand, place of purchase and packaging. Data will be collected through personal interviews, using a questionnaire addressed to consumers who are purchasing food in stores, supermarkets or specialized shops in Tirana and Durres the two biggest cities in Albania with large level of consumers. The measurement of attitudes/preferences will be using a multi-attribute methodology.

Keywords: Consumer preference, attribute, olive oil, food product.

INTRODUCTION

Recent years have been characterized by significant changes in life style and eating habits of consumer. Consumer preference are a long process that includes the pre purchase evaluation phase. According to (Kotler & Armstrong, 2004) in this stage the consumer uses information to arrive ata set of final brand choices. Due to the low economic opportunities the Albanian consumer has always paid attention to the price of the product much more than the brand name. At the time of purchasing a product each of us pays great attention to its attributes, often in food products as they are health-related products the attention is much more than the other kind of products. A first objective of this paper was to investigate consumer preference and attitudes toward olive oil. This research aims to show the evaluation of some external attributes of olive oil by the consumer. The second objective was to identify the relevance of some attributes on the focus of this study are the price,certification,brand,place of purchase and packaging.The relationship of this attributes with Albanian consumer preference for olive oil.

LITERATURE REVIEW

Attributes play an important role as evaluation criteria for all kinds of the products. In recent years the food marketing sector has evolved greatly in response to ever-increasing consumer

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demand for food products with an increasingly wide array of attributes. According to (Eroglu & Machleit, 1989) attributes are defined as characteristic or dimensions that consumer use to categorize offer that are presented and thus facilitate the development of purchasing process. Attributes have been categorized into intrinsic and extrinsic. Extrinsic are product-related attributes, they exist outside the product as (brand, price, country of origin, warranties or services and other). The two kind of attributes arise and they focus on the positive health effects but the extrinsic characteristics of the product, trust in the production method and the origin of the product are playing a more important role in consumers' decisions (Compés, 2002). In the case of olive oil products, a large number of studies concluded that the intrinsic attributes (such as taste, color, flavor, smell) and the extrinsic attributes (packaging, price, region of origin) have great importance in consumers' purchase decision (Chan-Halbrendt, Zhllima E, Sisiorc, Imami D, & Leonetti E, 2010; Ward, Briz & De Felipe, 2003).

This paper analyze the extrinsic attribute, according to the (Richardson et al., 1994; Lee & Lou, 1996) extrinsic attribute are most often used by consumers in their purchasing decisions. Nowadays brand has become an increasingly important quality signal. According to (Keller, 1993), brand adds to the consumers' perceived value of a product or service, and customer-based brand equity occurs when the associations are favorable, strong and unique, while (Kapferer, 2004) add that trust develops and an emotional relationship follows. Food brands play an important role in the food marketing system through their impact on consumer confidence in food quality (Caswell & Padberg, 1992).

Bernabéu et al. (2009) analyzed Castile-La Mancha (Spain) consumer preferences for olive oil, choosing the attributes of price, production system, type and origin. The results showed that olive oil type (extra virgin) was the most valued attribute, followed by origin (domestic), then price and production system (organic).

Kavallari et al. (2009) studied the factors influencing demand for olive oil in Germany and the UK. The authors found a preference in both countries for bulk rather than packaged olive oil, allowing retailers to reap higher benefits in the supply chain.

Dekhili et al. (2011) analyzed the impact of origin on consumers' selection of olive oil in France and Tunisia. The origin was valued differently by consumers in the two different countries: while French consumers gave greater importance to the country of origin, Tunisian consumers gave more importance to the region. Regarding the price attribute, French consumers valued this more than both the country and region of origin. However, consumers in Tunisia valued price less than the region but more than the country of origin.

Menapace et al. (2011) studied the country-of-origin effect on Canadian consumer preferences for extra virgin olive oil. They found willingness to pay varies according to the product's country of origin.

Erraach et al. (2014) analyzed consumers' preferences for olive oil in Andalusia (Spain) using the following attributes: origin, price, color and packaging. The most valued attribute was price, then origin, packaging and color. The authors also studied the impact of socio demographic factors on preferences, finding that older adults gave greater importance to the origin of the olive oil.

Yanguí et al. (2014) analyzed consumers' preferences for extra virgin olive oil in Catalonia (Spain). The results showed that the most important attributes were price, origin, certification and brand. They also found that income and the level of education affect consumer preference regarding their study consumers with higher educational levels and greater purchasing power were less sensitive to price.

RESEARCH METHODOLOGY

The present study is based on primary data as well as secondary data. Primary data is collected from the questionnaire, a sample of 200 Albanian consumers was interviewed to acquire information about their behaviour while purchasing olive oil and their perception of its quality attributes. Interviewees were asked at supermarkets or specialized stores that market food products in Tirana and Durrës the two biggest cities in Albania. All the interviewees have 18+ years old, in the cases where they answer that not use the olive oil the questionnaire is interrupted. A specific questionnaire, was submitted to the people in order to collect socioeconomic information and analyse the consumers preference for olive oil attributes, including the frequency of purchase, perception of quality attributes linked to olive oil and preferences regarding the area of origin, brand, place of purchasing, certification and packaging. The data of the study has been analyzed through SPSS (Statistical Package for Social Sciences).

DATA ANALYSIS

Consumer preferences are different, each individual has their own preferences, regarding to (Slovic, 1995) preferences are usually heterogeneous and utilities lie on a constructive level and are not directly observable. In this study we will highlight which of the defined attributes influences Albanian consumer preferences but in particular we are focused in Tirana the

capital city of Albania and Durres the second biggest city, where is concentrated the population and the development of the country.

TABLE 1
Do you consume olive oil?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	175	86.6	87.5	87.5
Valid No	25	13.4	12.5	100.0
Total	200	100.0	100.0	
Total	200	100.0		

Source: Primary data.

In the recent years in Albania is increase the use of olive oil as we see from the table 175 of the interviewers are answered that consume olive oil we have follow the other questions and 25 of them don't use olive oil, so the questionnaire is interrupt.

TABLE 2
Education * How important is for you the kind of certification of olive oil?
Cross tabulation

		How important is for you the kind of certification of olive oil?				Total
		A little important	Somewhat important	Important	Very important	
P3.Education	Elementary school	0	0	3	7	10
	High School	0	0	20	17	37
	University	1	8	55	59	123
	Other	0	0	1	3	4
	32	0	0	1	0	1
Total		1	8	80	86	175

Source: Primary data.

Our preference regarding packing, brands, certification, the place of purchase and price are affected from demographic factors. As can be seen from the above data, the most important people that pay attention to the certification are who have declared that are graduated from an university. The data support the theory that educational attainment influences our preferences. From the data collected we see that income doesn't affect the importance that individuals give to certification it is always important or very important irrespective of income level.

TABLE 3
Education * Which is your favorite brand of olive oil? Cross tabulation

		Which is your favorite brand of olive oil?		Total
		Local brands	Foreign brands	
Education	Elementary school	10	0	10
	High School	31	6	37
	University	99	24	123
	Other	4	0	4
	32	1	0	1
Total		145	30	175

Source: Primary data.

Sometimes the level of the education affect our ways of nutrition, usually for the food products Albanian people chose foreign brands because are considered much more secure and with high quality but in the case of olive oil the interveners prefer local brands much more than olive oil foreign brands.

Another attribute that Albanian consumer pay attentions the area of region 145 (71.8%) from 175 with which has continue the questionnaire answer that for they is important the region where olive oil comes from. The dates show to that the AC (Albanian consumer) prefer to buy at the same seller only 23.2% of the respondents answered that they buy olive oil at different sellers. Regarding to the place of purchase the majority of consumers interviewed 28.7% responded that they buy olive oil in small local factories in front of supermarket specialized shops or shopkeeper built by area farmers or other people familiar with them. The fact that Albanian consumers prefer to buy food products or olive oil in this case to the acquaintance is related not only to the lack of knowledge of the brands, certification and market opportunities, but also to the low reliability of the control of food products in the market by public institutions. Recently, various food safety scandals have been circulating in the media confirming the low level of control.

TABLE 4
Monthly Income (New ALL) *Do you pay importance at the price of olive oil? Cross tabulation

	Do you pay importance at the price of olive oil?					Total
	I pay no attention to it	A little bit	I pay some attention	I pay attention	I pay very attention to price	
0-50 000 ALL	1	8	11	3	0	23
50 001- 100 000 ALL	13	39	14	43	9	118
100 001-150000 ALL	1	9	12	1	1	24
150 001-200000 ALL	1	0	4	1	0	6
200 001 ALL	1	0	2	1	0	4
Total	17	56	43	49	10	175

Source: Primary data.

As the table shows the number of the consumer that pay attention to the price of olive oil at the moment of purchase is higher than those consumers that do not do it.

TABLE 5
Income (New ALL) * Do you consume olive oil certified as organic?

	Do you consume olive oil certified as organic?		Total
	Yes	No	
0-50 000 ALL	11	12	23
50 001- 100 000 ALL	23	95	118
100 001- 150 000 ALL	11	13	24
150 001- 200 000 ALL	2	4	6
200 001 ALL	1	3	4
Total	48	127	175

Source: Primary data.

According to Tsakiridou et al. (2006) the demand for organic olive oil is strongly affected by socioeconomic consumer characteristics, as well as by the volume of their income, their occupation, and to a lesser degree, by their attitudes toward organic products, food safety and the environment. As we can see from the data collected the some factors affect consumer preference too. Consumers who claim to consume certified organic olive oil not only have above average income as we see from the table but also have an educational level.

CONCLUSION AND RECOMMENDATIONS

The results of the current work underlined the importance of attribute when we purchase olive oil. After reviewing the information collected we see that in the difference from the other European countries Albanian consumer buy or prefer to buy olive oil in plastic bottles than in glass bottle if we refer Greek consumer according to Krystallis & Ness (2005). They simultaneously respond positively to quality marks, the mention of the country of origin and the glass bottle they point out too that Greek olive oil consumer grant no importance to the product brand. Regarding to the brands Albanian consumer prefer to buy national brands over the foreign ones they pay attention for the origin of the product, our results confirm the conclusion of a large number of studies that have found that consumers' product evaluations and buying intentions are related to the origins of the products (for relevant literature reviews, see Papadopoulos & Heslop, 2003; Srinivasan & Jain, 2003; Pharr, 2005). The results of this study with offer some important information all the businesses that sell or produce olive oil and maybe will help them to create marketing strategies.

One of the tips we give is informing consumers about glass bottle packaging and why most consumers interviewed prefer plastic bottles. To promote differentiation, the information available to the consumer should be increased and improved. Informing consumers regarding the attributes of olive oil, their characteristics and benefits would be beneficial through communication and promotional activities. In future papers it would be of interest to analyse other olive oil attributes that could represent possible sources of innovation for firms in the sector, such as the size and colour of the bottle.

I also think that Albanian consumers need to be informed about the types of certification and the differences between them. When filling out the questionnaires, it was observed that consumers consider bio-olive oil produced by small farmers and which does not pass through the industry but has little or nothing. information on the certification and benefits of products certified to European standards.

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Key Success Factors for Realizing the Competitive Advantage of Renewable Energy Business Model

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ABSTRACT: The new sustainable business models (SBMs) are built to generate not only economic value, but environmental and/or social values as well (Nordhaus, 2015, Romer 1994). In this context, renewable energy is an important accelerator of sustainable development. The research objective of this paper is an assessment of the key success factors for effective use of the policy instruments that contribute to more efficient and sustainable production of renewable energy equipment and renewable energy. However, renewable energy business models need to be supported by appropriate fiscal incentives. These incentives help to eliminate or minimize the cost escalation (Lytinen, 2017, Shaltteger et.al 2012), and be more competitive for industrial and household consumption. Nowadays companies around the globe are changing their business behavior in line with the environmental and social sustainability principles. This change is necessary because the principle of voluntary business involvement is insufficient for dealing with sustainability issues (Carroll, 1979). Hence, the role of governments in reaching sustainability goals is gaining importance (Dentchev, Hazendonck and van Balen, 2017). We apply thorough analyses of the market regulation that has changed the business environment and made it favorable for the production of clean energy. The study incorporates qualitative research, using semi-structured and in-depth interviews (Eisenhardt, 1989; Strauss and Corbin, 1994; Yin, 2003). A comparison analysis between Belgium and Bulgaria's investments in REBMs will contribute in making the difference between cooperatives and traditional business models. The main findings of this study are related to the assumption that companies that specialize in high-tech production and implementation of photovoltaic and wind equipment may acquire additional competitive potential and may realize double dividend: pollution free production of electricity and sufficient profitability (Klein, 2015, Arrevalo et. al., 2011). We bring facts and arguments supporting the conclusion that this highly dynamic energy sector may contribute for technological innovation and better market competitiveness.

Keywords: business models, competitiveness, public policy, renewable energy, sustainable development.

JEL: H25. L21. M21. Y18. Q01.

INTRODUCTION

We share the understanding that a good business model “begins with an insight into human motivations and ends in a rich stream of profits” (Magrreta, 2002, p.3). Different authors and practitioners have highlighted other dimensions of the business models, like the importance of sustainable consumption and production towards sustainable development (Lüdeke -Freund & Boons, 2013; Boons, Montalvo, Quist & Wagner, 2013). Most importantly, they have identified sustainable business models (Wells, 2013) as “meta” factors towards cleaner production (Lüdeke-Freund, 2010, Tukker et.al, 2008). Turning green into gold is the wake-up call of the day (Esty & Winston, 2009) as the agenda for the new business models for sustainability is to move towards corporate sustainability (Lüdeke-Freund & Dembek, 2017;

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Bocken et al., 2014), and going beyond the rationale of how an organization creates, delivers and captures value (Joyce & Paquin, 2016; Casadeus-Masanell & Ricart, 2010; Osterwalder & Pigneur, 2009).

SUSTAINABLE BUSINESS MODELS AND LITERATURE REVIEW

Theoretical review

However, a key question for defining a business model as sustainable is related to the core idea of how does a business build sustainable competitive advantage (Teece, 2010) and how it can generate profit. In this regard, innovation and efficiency are identified as key “design themes” (Zott & Ammit, 2008) of the sustainable business models for building-up competitive advantage (Bocken, Short, Rana & Evans, 2014) from a strategic perspective. In the market-based economy and decentralized decision-making structures, new business models play a decisive role for eco-friendly alternatives (Lüdeke-Freund, Carroux, Joyce, Massa & Breuer, 2018) which gain competitive advantages. The resemblance is appropriate following the illustration of renewable energy business models (Dovi, Friedler, Husingh & Klemeš, 2009) where at one hand they lead to lowering gas emissions and reducing the dependence on imports (considered as positive externalities). On the other hand, this eco-friendly alternative suffers from competitive disadvantage if negative externalities are not included in the market prices (Porter & Van Der Linde, 1995).

Companies around the globe are changing their behavior to be able to incorporate the principles of the environmental and social sustainability. Model innovation is an efficient tool for an adequate adaptation to the new business environment and the new standards introduced by the governments (Carroll, 1979). That is why the role of governments in reaching sustainability goals is gaining importance (Dentchev, Hazendonck and van Balen, 2017). Green and competitive sustainable business models became the ultimate efficiency tool (Osterwalder, Pigneur & Tucci, 2005) for value creation and delivery for the customers as part of the transition management for sustainable development (Loorbach, 2010; Gladwin, Kenelly & Krause, 1995).

Following Elkington’s triple bottom line (Elkington, 1998) for sharing the corporate social responsibility’s agenda, we focus on a critical analysis of renewable energy business models and how we have learned the lessons for contribution in the design of better policy instruments towards realizing the competitive advantage of eco-alternative models in the renewable energy sector.

Methodological approach - Case study

A multiple cases approach is deemed most appropriate and more robust than a single case study as the potential benefits of data richness, depth and quality, compensate for the associated shortcomings of limited representativeness and generalization (Eisenhardt, 1989; Strauss and Corbin, 1994; Yin, 2003). Our comparative analysis between Belgium, Bulgaria, the Netherlands, Denmark and Sweden's investments in renewable energy business models explains the difference between cooperatives and traditional business models. We show the details how the cooperative's business model, with community-based social marketing initiatives, creates the promotional factors required for a resilient energy sector.

Following a qualitative research conducted in the afore-mentioned countries for the period March-September 2019, we have found out that the most important building blocks of renewable energy business models are the developers, financial parameters (equity provider and the loan provider), operation and maintenance of the installation and at last but not least, competitors in the energy market. While analyzing the patterns of the renewable energy business models it is important to highlight the fact that this study shows an exploration of competitiveness amongst different forms of renewable energy business models. They are coming mainly from geographical location, access to resources, with adequate regulatory framework and appropriate mentality. However, it is important to note that apart for huge projects (like offshore wind), there is a lot of room for many people at the moment to enable many differences towards our common sustainable future. And still, electricity market is far from any consolidation in many of the block mentioned above due to the diversity of the landscape.

SUSTAINABLE BUSINESS MODELS – MAPPING THE VALUES

This paper deals with the companies that specialize in high-tech production and implementation of photovoltaic and wind equipment, and may acquire additional competitive potential and may realize double dividend: pollution free production of electricity and sufficient profitability. Moreover, knowledge gap remains in the governance of BMs resulting from network participation for sustainability. In particular, we are having a view through the lenses of economic governing of the commons (Ostrom, 1990) and energy companies (sun and wind) involved in a sustainable development model. The existing literature also argues that firms must redesign their BM based on networks and collaborative practices to attain sustainable development (Bocken et al., 2014; Roome and Louche 2016), as there's little research into the role of individual level factors affecting the scaling process for impact

(Smith and Kistruck, 2016). However, the production of renewable energy is still much more expensive than the production of energy based on non-renewables. Nevertheless, as stated by Lyytinen (2017), the establishment of favorable business model for sustainable development, supported by fiscal incentives, may overcome the problems with the cost increase. Moreover, most developed countries nowadays are trying to deal with the deployment of the appropriate policies (Rodrik, 2005. P.1) for better spillover effects as a contribution to the circular economy. The contribution statement of this paper is to offer an understanding on how the underlying mechanisms of achieving environmentally friendly production of RE equipment affect the positive externalities on nature and socio-economic effects, and more over enhance the competitiveness towards sustainable development. Moreover, on the verge of positive and negative arguments, there is an argument known for pushing forward economic development, namely that competition is the main advantage of the market economy, and competitiveness shall be seen as value added for the firms (Krugman, 1994, p.44) that specialize and create competitive advantage towards sustainable development. The analysis of the sustainable business models for renewable energy, and the concept of ‘sustainable BM’ shall be seen as ‘a business model that creates competitive advantage through superior customer value and contributes to a sustainable development of the company and society’ (Lüdeke-Freund, 2010). After the implementation of the first Clean energy package (Directive 28(EC)/2009), we have seen so built the renewable energy sector (*from the scratch as the case of Bulgaria*), and so far, the scholars and practitioners have recognized 8 types of sustainable business models for renewable energy, divided by the principle of ownership, service and governmental support. Following Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, „*the schemes used to promote the use of energy from renewables from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or otherwise, the volume of such energy purchased*”

TABLE 1
Sustainable energy business models according to Directive 2009/28/EC of the European Parliament and of the Council

№	Direct price support schemes	Indirect support schemes
1	Feed-in-tariffs	Investment aids
2	Premium payments	Tax exemptions / reductions
3	-	Tax refunds
4	-	Renewable energy obligation scheme
5	-	Green certificates

Source: Drawn by Neda Muzho based on the analyzed information.

Following a broad research of Asian development bank (2015), (Bauens, Gotchev & Holstenkamp, 2016., Herbes, Brummer, Rognli & Blazejewski, 2017) we add another perspective different from the EU's regulation towards systematic review of clean energy models, as we have seen that they have divided sustainable business models for renewable energy based on real case studies, as follows:

TABLE 2
Sustainable energy business models by ownership and service criteria

№	Ownership business models	Service business models
1	Public-private partnership	Local ownership cooperative
2	Multiparty ownership	Energy performance contracting
3	Lease or hire purchase model	
4	Dealer credit business model	

Source: Drawn by Neda Muzho based on the analyzed information.

Following the understanding that sustainable business models create competitive advantage through superior customer value (Lüdeke-Freund, 2010), therefore an analysis of the traditional renewable energy business models with governmental support (feed-in-tariffs) as applied in Bulgaria and the cooperatives in Belgium, as a way of overcoming the renewable energy barriers (Richter, 2013.; Viardot, 2013; Strupeit & Palm, 2016; Del Rio & Unruh, 2007;) with community-based social marketing initiatives that are creating the promotional factors required for a resilient energy sector. A critical review of the three main building blocks of the sustainable business models (Bocken et al., 2014; Osterwalder and Pigneur, 2005; Teece, 2010;), namely, *value capture*, the revenue obtained from sales, *value proposition*, the value embedded in the product/ service to generate economic return, and *value creation and delivery*, which is the chance for exploiting new business opportunities, new revenues, new market opportunities, and new value distributions.

TABLE 3
Value mapping

Values	Value proposition	Value creation and delivery	Value capture
1	Product / service	Activities	Cost structure & revenue streams
2	Customer segments and relationships	Resources	Value capture for key actors
3	Value for customers, society and environments	Distribution channels	Growth strategy
4		Partners and suppliers	
5		Technology and product features	
Summary	What value is provided and to whom	How is value provided	How does the company make money and capture other forms of value?

Resource: Adapted from Richardson, 2008; Osterwalder and Pigneur, 2005; Bocken et al., 2014 and Short et al. 2013.

TABLE 4
Critical analysis of the building blocks of REBM

No		Value proposition	Value creation and delivery	Value capture
1	Feed-in-tariffs	<ul style="list-style-type: none"> - Sustainable RE service - Traditional approach towards clients - Controlled by the government - Providing clean energy, “green jobs”, and environmentally friendly production 	<ul style="list-style-type: none"> - Renewable energy production - Solar and wind resources - Using national grid - Government – main distribution partner 	<ul style="list-style-type: none"> - Firms engaged with feed-in-tariffs earn money through preferential buying schemes per kW/ h from the government - Growth strategy is mainly stimulated by subsidies
2	Cooperatives	<ul style="list-style-type: none"> - Sustainable RE service - Client oriented - Voluntary and open membership - Provide education and training for the members - Transparency - Providing clean energy, “green jobs”, and environmentally friendly production - Controlled by the members - One member-one-vote - Typical for North Europe 	<ul style="list-style-type: none"> - Renewable energy production - Solar and winds resources - Building-up local grids / easy permit system - Main partners: Government and local communities 	<ul style="list-style-type: none"> - Revenues mainly coming from the high prices per kW/ h from the local communities - Growth strategy mainly oriented through re-investing the gains

Source: Drawn by Neda Muzho based on the analyzed information.

With regard to the policy instruments that different countries use for stimulating the renewable energy business models, in the case of feed-in-tariffs, a sector was built from the scratch using the subsidies system and the preferential buying price per kW/h, as the sector’s market capitalization is valued at € 2.4 bln. Moreover, starting from January 1st, 2019, new changes to the Energy Act in Bulgaria would present to green energy producers a new opportunity, as they may sell-buy the extra amount of produced green energy to the Energy Exchange, built-up as part of Remit Regulation 1227/2011, since 2014. The cost of renewable electricity is constantly falling due to the lower cost of wind turbines and photovoltaic panels. According to IRENA (International Renewable Energy Agency) data, prices in France and Germany have already reached 4-6 cents per kilowatt hour. But why does not Bulgaria have such low prices for green energy and even pay 2 times more, and the price per kW/ h is 10-

euro cent. The reason is that investments in the sector in our country happened in the period 2007-2010, when technologies were very expensive. Now solar panels, for example, are 80% cheaper. For comparison purposes, cooperative renewable energy models implemented mainly in Northern Europe had the possibility to follow-up the deployment of solar panels and wind energy farms without signing long-term agreements (as case of Bulgaria from 2009 – 2021) and making the consumer a debtor, nevertheless that the cost of technology improved up-to 80% during the same period. A case study coming is from the Netherlands. A very successful business model is building-up the cooperative business model and implementing long-term purchase power agreements (PPA), usually signed between two parties, usually between an energy and an individual or other company. Following the example given by “Europe Corporate Renewable Market Watch” shows that four companies, Google, Philips, Akzo Nobel and DSM have signed a PPA with wind project in the Netherlands, known as the “Dutch wind consortium”, enabling the construction of 102 MW Krammer Wind Park Project. Another key player is the Norwegian aluminum company Norsk Hydro signing a long term PPA with the Green Investment Group, with a total duration of 29 years, and this is officially the world’s longest wind power purchase agreement. Sweden currently is ranking number 1 in the total use of energy coming from renewables, as 51 % of its energy is mainly coming from off-shore wind, water and solar energy. The Green Investment Group has put forward € 270 mln to develop a 235 MW project in the Swedish town of Övertungen. The most important feature of this project is that wind farm is going to be built out of 56 Siemens Gamesa turbines, each with capacity of 4.2 MW. Most importantly, Siemens is one of the companies that will buy the produced energy directly for the next 29 years to come. Moreover, based on a study published by “Europe Corporate Renewable PPA Market Report 2018 – 2027” in June 2019, authors argue that most important governmental incentives are viewed as imposed regulatory framework and tax incentives for stimulating the private companies, which have experience and the appropriate financial means, to forest the renewable energy sector. We would like to add that on top what is said above, a very important key-word is “long-term regulatory framework”, especially when it comes to shaping the goals of the private investors for 20 or 30 years. Best practices so far are coming from Sweden, Denmark, Norway, the Netherlands and UK which hold the first places in terms of renewable energy production and competitive renewable business models.

FINDINGS AND CONCLUSIONS

Following the research, we have conducted, it was revealed that on top of the most important policy instruments provided by the government which are used to enhance the competitiveness of renewable energy business models, is the secured and straightforward permitting system. This is a major hurdle in many countries, especially densely populated ones. Moreover, a bold and stable subsidy framework, if any with market enabling possibilities (excluding the feed-in-tariff system due to regulatory and political risk), and level playing field or preferential conditions for grid access and ancillary services (it is important to grow for enabling the electrical market integration), remain the most preferable tools for building-up the “muscles” needed to pave the way towards sustainability and reshape the oligopolistic electrical market. In addition, subsidies should be stable but also have the best efficiency possible in order to limit the cost for grid users. There should also limit as much as possible market distortion and fake market signals (example of negative prices in Germany). Other complimentary policy instruments which are used to enhance the competitiveness of renewable energy business models are multistage permits, application for production license schemes, other fancy requirements and connection delay from TSO/DSO etc.

It is very important to be considered public policy instruments for technological innovation, as the key enabler is to accept the creation of “sandbox” (fintech innovations) on both regulatory and technical side. Engineer can find very challenging solutions but if they have to wait a proper regulatory framework, it will take years to make concrete experiments on very promising topics like microgrids etc.

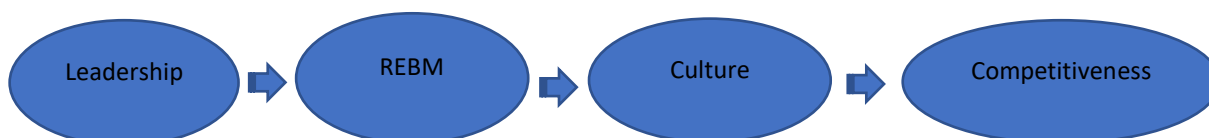
The scope of the study is limited mainly to the wind and solar energy sector and its development in Belgium and Bulgaria following the Scandinavian example of Denmark and Sweden. It consists of micro economic analyses of this sector and its potential for further development. We bring facts and arguments that this highly dynamic energy sector contributes for the technological innovation and better competitiveness of the economy. By our perspective, it could not be possible without the intervention of the government (Steurer, 2013) and the implementation of the EU Directives, concerning the restructuring of the energy sector and making it more efficient and more environmentally sound.

DISCUSSION AND MOTIVATION FOR FURTHER RESEARCH

Sustainable development problem is one of the most promising and challenging directions of modern science (Gechev, 2005). We would like to point out that the implementation of

environmental standards by the companies all around the world plays a substantial role in reducing the CO₂ emissions and contributing to sustainable and inclusive growth. Moreover, building-up resilient energy sector cannot be done without building sustainable renewable energy sector, with predominant part of wind and solar energy due to their price competitiveness (IRENA, 2019). Investing in the right renewable energy business model is step № 1 towards solving ecological and social problems, and improving corporate sustainability (Bocken et al., 2014; Lüdeke-Freund & Dembek, 2017; Schaltegger et al., 2016). Following the Nobel prize theory of how we should manage the commons (in our case the energy coming from the sun and wind) and find a polycentric model of governance, equally distant from government and private control. In the case of renewable energy business model, we believe that leadership defines the model. The main actor in the path towards 100 % renewable energy in the most developed countries like Norway, Sweden, is the government! It enhances the right sustainable models by imposing the right regulatory framework and tax incentives. Step number 2 is that the model imposes the culture. One of the most important patterns of the most developed countries is solidarity. So that when the price is raising per kW/ hour due to the raise of the renewables in the energy mix in the country, the government has made sure through the 5th estate, the media, that everybody is aware of. At last but not least, a very good business model is defined by its competitiveness, and the culture is the performance engine of the renewable energy business model.

FIGURE 1
Competitive renewable energy business model



Source: Drawn by Neda Muzho based on the analyzed information.

Future research needs to analyze in more details the implementation of the aforementioned model, especially in the south-east European countries and in more details the implementation of PPA agreements in the Bulgarian renewable energy sector.

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Review of the Renewable Energy Sources (RES) in the International Business – Their Current Status and Future Trend

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ABSTRACT: The process of increasing carbon emissions in the atmosphere due to the excessive use of fossil fuels over the past century has led us to the current situation, where there is a need for new methods to produce energy. Renewable energy sources are the best available solution at the moment to reduce negative impact on the environment and to ensure sustainable development as a legacy for the next generations. It is a task for the international business and government institutions, which are responsible to make this transition possible worldwide. Although the countries in South Eastern Europe and especially on the Balkans are still far from the needed level of RES implementation and establishment, they are catching up the Western countries with an accelerated pace in the last few years. This report examines the current progress in the development and the usage of renewable energy sources. The goal has been achieved through analysis and synthesis of empirical information, content analysis of various publications on economic, environmental and climate change topics. Subsequent conclusions about the strengths and weaknesses of RES are included in the paper and then forecasts are made about their future impact on the business and the daily lives of the people. The results of this review show that ‘green’ energy will occupy a very important place in the international business in the 21st century.

Keywords: international business, renewable energy sources, sustainable development.

JEL: Q27, Q37, F64, F42, F20.

INTRODUCTION

The renewable energy sources (RES) also referred to as alternative energy, “green” energy or renewables for short are gaining momentum and increasing their role in our society by each day. According to some scholars and engineers this could have happened in the middle of the previous century because there the technology was enough developed, but the rise of the fossil fuels slowed down this process. But what exactly means renewable energy? The definition from the American energy information administration (EIA) is the following: “Renewable energy is energy from sources that are naturally replenishing but flow-limited; renewable resources are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time.”²

The types depend on their initial source and are hydropower, geothermal, wind and solar. It is called “green” because the minimum impact on the environment and its very low level of pollution. This means that the energy from renewables is not only clean, but also widely available depending on the nature conditions and the weather.

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² Retrieved from https://www.eia.gov/energyexplained/?page=renewable_home.

For business on global scale those are good news. They are able to invest in local infrastructure and plants in order to be energy autonomous. After the initial high costs they will be able to receive very cheap energy for their internal demand in the manufacturing process. In fact nowadays many governments have special regulations, programs and subsidies to speed up the development of such measures. For example, EU and China are putting the most efforts for increasing the usage of renewables as their long term strategy.

The current research is intended to make the state of the art review not on the technical part of the renewable energy sources as many other available articles, but on their economic effects. The humans are different from all other species because we adapt to the changing environment more successfully. Furthermore, we use the changes in our advantage to survive. So this century will be one of those key moments when the era of fossil fuels will be over due to their scarcity and their harm for the nature. It will be the time for new energy. We can predict that the attention will turn to carbon-free energy sources, which could suppress the harms from Global warming and boost the international business development to new highs.

Brief history of renewable energy sources

The renewable energy has a long history. Many people believe that the renewable energy sources (RES) are a modern invention. The truth is that only the technology and their purpose as energy suppliers have changed. In fact the man has harnessed the power of the Sun, the water and the wind back to the times of Ancient Rome. There are historical evidences that some brilliant Greek and Roman inventors used them for different purposes. Without coal fuel the point of their usage was different. For example the genius of the ancient world - Archimedes has used the sunbeams and polished shields as mirrors to sink attacking roman ships during the siege of his home city Syracuse in 212 BC. Egyptians and Greeks used sunlight for heating of their homes with a special technology, which was perfected by the Romans in order to keep the temperature during the day and night, including with the help of hot water tanks under the floor. Wind and water were also used for different purposes by the ancients. They were and still are powerful tools in our help. The Romans were skilful exploiters of the natural resources in each conquered region. They transformed them into heat, light, mechanical power, and aqueducts, they even made solar and water clocks. For example Pliny the Elder mentioned in his "Historia Naturalis" of 77 AD that waterpower was used in the flour mills. Furthermore, the technique of hydraulic mining is a Roman invention.

When we speak about wind energy, we are usually referring to the classic windmills, which are still very common throughout the world in different forms. But their history is even

older. As Paul Gipe once wrote about the wind energy: “Wind energy is not some exotic new technology like nuclear power. Only wind energy’s current manifestation is new. We have lived peacefully with the wind before, and we can do so again.”³

Current status and future trends of renewables

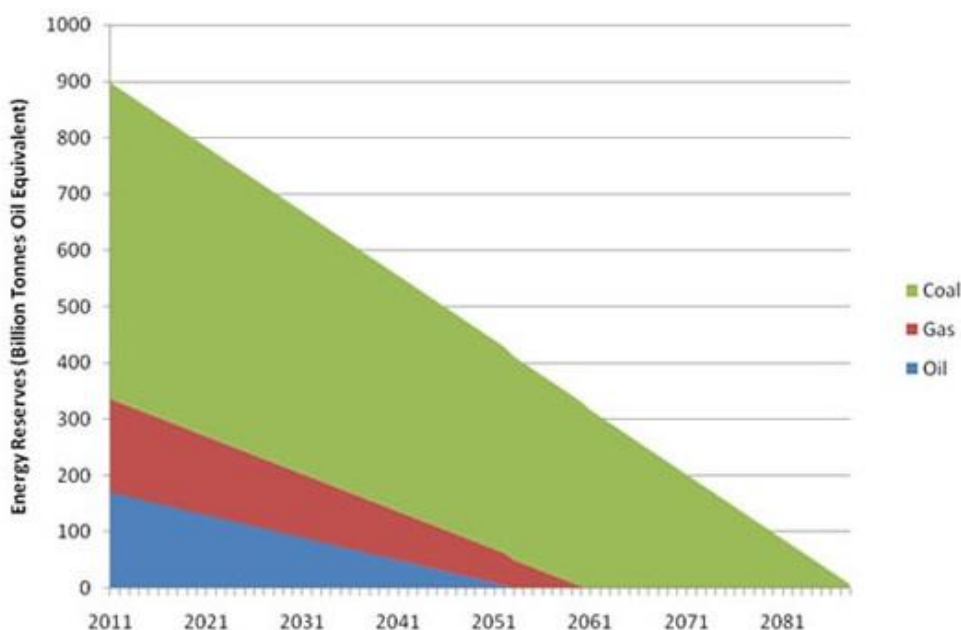
The next industrial revolution is happening now, but unlike the previous it is happening on two fronts – one is in search of new energy suppliers and another is in digitalization. For the purpose of this article the focus is on the former. There is a simple reason why the humanity will need a new kind of power – the current hegemony of the fossil fuels is predicted to end in the next one hundred years. At the moment the renewable energy is still behind the rates of consumption of its competitors but is catching up rapidly.

In a publication⁴ from 2015 the author writes about possible scenarios when the reserves of oil, natural gas and coal will be used-up. He also addresses the fact that developing nations like India and the countries in Africa are still very dependable on fossil fuels and “will contribute to the growing thirst for energy”, but it is also mentioned that with the development of technology makes the renewable energy sources cheaper by each passing day. We have to consider the fact that there are some unexploited reserves of fuel in distant areas such as Antarctica, but they are hard to get and it is debatable, if the efforts will be worthy. Furthermore, nowadays oil supply is a powerful weapon for a political influence and there are many speculations that could change the prices in a matter of hours. But this “game” could not last forever and sooner or later the reserves of barrels will be over and then the governments will have two options – transition to renewables and other power sources or fight over the last remaining oil wells. Both scenarios have their supporters. If the current rates of fossil fuels production and demand keep their current levels then the situation could be summarized by the following graphic:

³ Gipe P., 1995, *Wind Energy Comes of Age*, New York: John Wiley & Sons, p. 482.

⁴ Retrieved from https://www.business-standard.com/article/punditry/how-long-will-fossil-fuels-last-115092201397_1.html.

FIGURE 1
Prognosis for the decline of available fossil fuels reserves

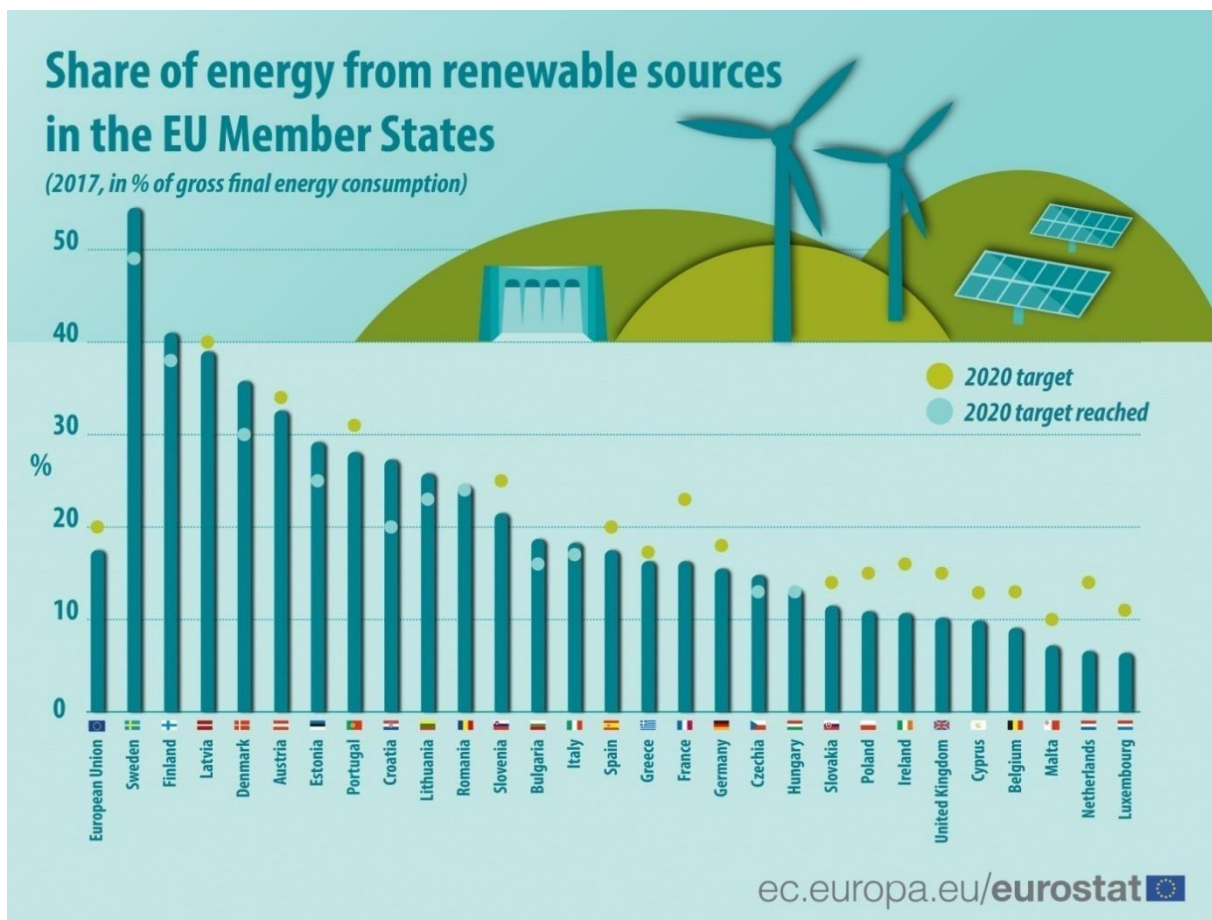


Source: Retrieved from <https://www.ecotricity.co.uk/our-green-energy/energy-independence/the-end-of-fossil-fuels>.

The figure shows that the oil reserves are expected to end in 30 years, gas – in 40 and coal in 80 years time. We can make a logical assumption that the humanity will abandon the fossil fuels long before the actual end of their supply, because of the harms they bring to the environment and the other available options.

The current status of renewables is very different than it was twenty years ago. Now it has a widespread usage and is further growing in popularity. During the last five years after the recovery from the last world economic crisis the attention is focused on innovations and alternative energy sources. EU government is an excellent example for a progress in that area. The European Commission has issued series of decision and recommendations for this particular matter and is putting a lot of efforts to increase the percent of energy consumption from renewable energy sources. They have made an official research in 2017 to check the progress with achieving their target goals for 2020. The results are shown in this bar chart:

FIGURE 2
Share of energy from renewable resources in the EU Member States

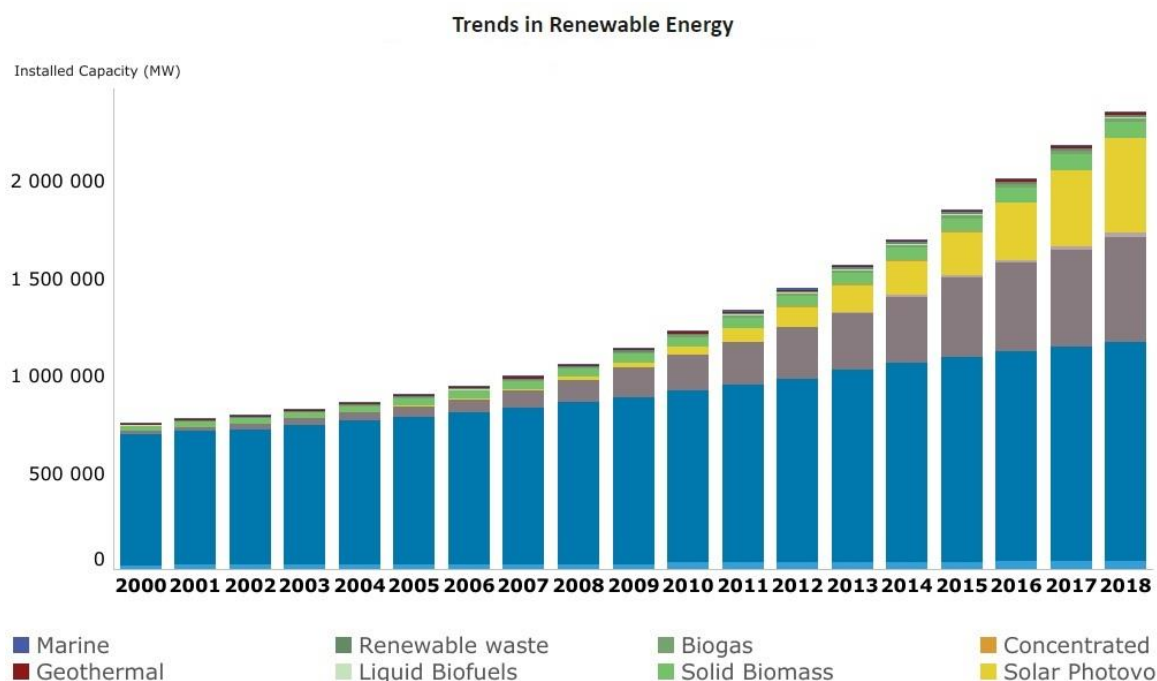


Source: Retrieved from https://ec.europa.eu/eurostat/statistics-explained/images/b/b4/Share_of_energy_from_renewable_sources_2017_infograph.png.

As expected the countries in Scandinavia are the leaders in that area and they have achieved their goals few years in advance. This is due to the local nature conditions, but mostly because the political will to implement such measures. Countries from East Europe and the Balkans are also performing rather well and are in the middle of the chart. Bulgaria for example has already achieved its target. Surprisingly at the bottom are countries with high standard of living and strong economies such as the United Kingdom, Malta, the Netherlands and Luxembourg. It is certain that those countries have installed and working plants for renewable energy. One possible explanation is that their conventional energy suppliers are too well integrated and are working at their maximum levels, which is why the percent of renewables in the final gross energy consumption was not very noticeable back in 2017. For the whole EU renewable energy represented 17.5 % of energy consumed, while heading to the target of 20 % in 2020.

Data from Eurostat is reliable for analysis of the current status. However for the next part of the review about the future trends the most detailed information can be received from the annual reports of the International Renewable Energy Agency (IRENA). Its purpose is to support more than 180 countries in their transition to a sustainable energy future. In its report⁵ from 2018 the agency released information about the continuation in the fall of costs for renewables. In another report⁶ from the same year IRENA announced one of its key findings: “Onshore wind and solar PV are set by 2020 to consistently offer a less expensive source of new electricity than the least-cost fossil fuel alternative, without financial assistance.” The progress is mostly due to the efforts and the investments put for innovations in this industry.

FIGURE 3
Share of installed capacity worldwide in megawatts from different types of renewables



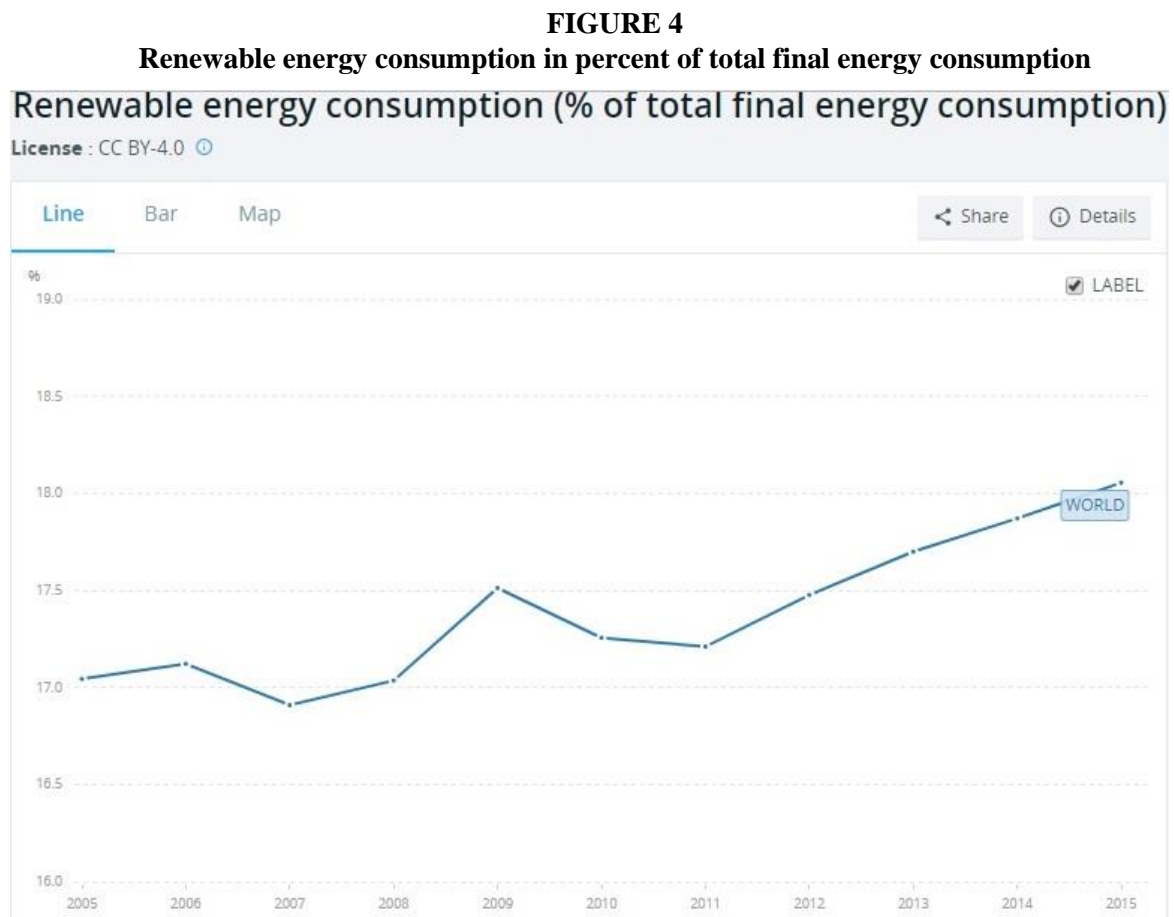
Source: Retrieved from <http://resourceirena.irena.org/gateway/dashboard/?topic=4&subTopic=16>.

As we can see from the bar chart above the installed capacity in the world with renewable energy sources is increasing by each year for the whole observed period from 2000 to 2018. In the last five years the capacity has doubled its size. The significant rise in installations of solar photovoltaic panels and renewable waste equipment is notable. The panels as mentioned before became more popular and cheaper. All this means that we can

⁵ Global energy transformation: A roadmap to 2050, 2018, International renewable energy agency, p. 19.

⁶ Renewable power generation costs in 2018, 2018, International renewable energy agency, p. 9.

expect this upward movement to continue in the next years. The rapid growth of the renewable energy sources marks a long-lasting trend, which is not drastically effected by economic crises, such as the last one from 2008, as it was the fact with other commodities. Only the levels of consumptions are affected during such periods. This could be proven by the following line chart with data from the World Bank for the period between 2005 and 2015:



Source: Retrieved from <https://data.worldbank.org/indicator/eg.fec.rnew.zs?end=2015&start=2005>.

The information shows that during 2010 and 2011 the consumption was lower due to the crisis and the lower income of the consumers. After recovery from the crisis and the start of increase in the available disposable income logically their consumption expands from 2012.

So, what impact could Renewable energy have on the international business? The answer could be summarized in one word – pricing. For example, more power from RES could lead to lower production costs for the companies, which use them. Then they will be able to produce more with the same amount of money. This can lead to more goods being offered to the local market and exported or to the increase in the value of the company, if the management decides to keep the excess in stock. This will mean that the company will be

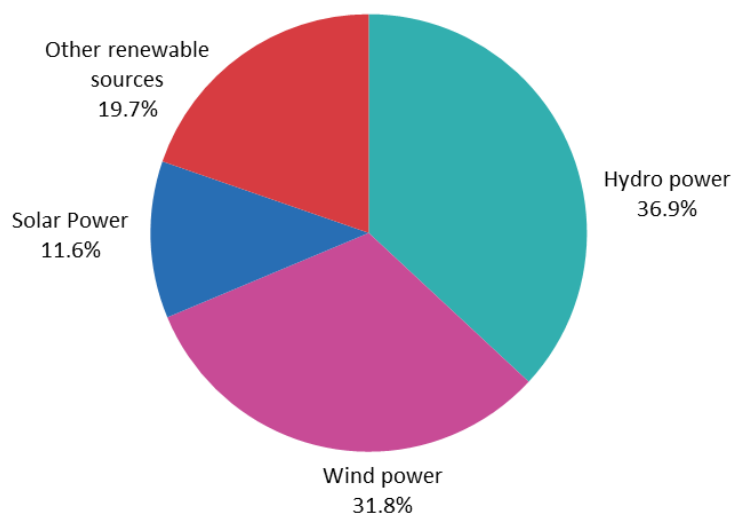
more competitive on the market. The difficulty comes from the implementation of the RES in the factory – its initial costs are high, but there is also a need from desire to substitute the traditional energy with “green”. The implementation of renewables could lead to significant transformation of the international business environment such as emerging of new technological conglomerates, where the conventional energy suppliers will be changed with “green” producers. The involved companies, which apply this strategy, will possess higher competitiveness on the international market due to the cheaper energy for their factories.

Pros and cons of the “green” energy

We must distinguish the different types of renewable energy sources from one another because each one has its own strengths and weaknesses. For example, the power of the Sun is easy to gear and has great efficiency, but it is not constant and is hard to store for future use. The large number of solar panels throughout the world proves the advantages in their use, but some areas like the deserts have a greater potential for their installation. New technologies allow much more of the sun light to be captured and transformed into energy and there are new types of batteries with greater storage capacity.

The wind and waterpower are more reliable and more constant than the solar energy and could be used also during the night, but require significant funds for developing of the infrastructure and the power plants for their utilization. That is why it is usually build on national level with or under government control, but the generated energy is on larger scale than the produced from sun beams. The following pie chart from the data of Eurostat reveals the generated electricity in EU for 2016:

FIGURE 5
Gross electricity generation from renewable sources in the EU, 2016 year



Source: Retrieved from <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20180921-1>.

It is not a surprise that according to the data from Eurostat from 2016 the gross electricity generation from renewable sources in EU is composed mostly of hydro power (36,9%) and wind power (31,8%). Each of them is nearly three times more than generated solar power. Other renewable sources include mostly energy from biomass, which also has a great influence on the market of renewables. It also has pros – cheap, recycling of wastes is wildly available, and cons – pollution from burning, repulsive odour, expensive extraction process. The analysis of all mentioned types of renewable sources leads us to the conclusion that despite some fixable flaws, the “green” energy could offer much more gain than it costs.

Renewable energy as an option for sustainable development

The concept for sustainable development has a modern meaning, which includes the view of satisfying the needs of the present generation without causing obstacles to the future generations and their ability to meet their own needs. There are a number of goals for sustainable development set in September 2015, as part of the 70th session of the UN General Assembly. The renewable energy sources could aid in accomplishing some of them like: climate action, sustainable cities and communities, but especially for affordable and clean energy. Almost all kinds of renewables could help for this purpose, but we must exclude some types of biomass energy where there is a need of burning process, which could lead to air pollution. Solar, water and wind energy have their cleanness and inexpensiveness. In fact an article⁷ from 2017 suggests that researchers from the Massachusetts Institute of Technology (MIT) have proposed a method of storage the excessive energy from renewables. Their idea is to turn the additional electricity into heat and then to “to heat up a large mass of firebricks, which can retain the heat for long periods if they are enclosed in an insulated casing. At a later time, the heat could be used directly for industrial processes, or it could feed generators that convert it back to electricity when the power is needed.” This will solve the problem with the need of batteries, could further lower the international prices of renewables and to make them more accessible for the business owners around the globe. Further in the text is stated: “The collapse of electricity prices due to expansion of non-fossil energy is already happening and will continue to increase as renewable energy installations increase”.

In a report⁸ from 2016 the authors suggest the idea that: “Adopting a people-centered approach and empowering citizens, farmers and small businesses to invest in renewable energy projects can be a powerful tool for socio-economic development and local wealth

⁷ Retrieved from <https://www.weforum.org/agenda/2017/09/this-ancient-technology-could-be-the-answer-to-one-of-renewable-energys-biggest-problems>.

⁸ Sawin J., Sverrisson F. and Leidreiter A., July 2016, Renewable Energy and Sustainable Development: Accounting for impacts on the path to 100% RE, Sunna Research and World Future Council, p. 23.

creation.” This is another step to sustainable development and its positive economic impact on the society. They also predict that transition to renewables will assure new jobs in the sector and in this way assisting in achieving some of the other goals of sustainable development.

CONCLUSION

The world is changing rapidly. New technologies and revolutionary ideas dictate our way of living and even our modern thinking. Nowadays the big international corporations, which have made their initial capital and later profits from the rise of fossil fuels in the last two hundred years, need to change their ways of conducting business or to face extinction before the end of this century. Some of them are already putting a lot of money in their research and development departments in order to be part of the pioneers on the new energy market and to have a fair share in it. Many governments are also participating in the transition process with their policies and measures aiming to ease the implementation of renewable energy sources for the businesses and to ensure the further development of its infrastructure.

Bulgaria is one of the countries, where the renewable energy sources are widespread. As we concluded from the data from Eurostat in 2017 the target of share from renewables in the total energy usage has been already achieved back then. We can assume that favourable nature conditions, the Bulgarian entrepreneurial thinking and the good business climate have made its contribution for that. In 2019 the conditions for further rise in the application of renewables are even better after the prices of energy from fossil fuels are increasing annually and the business owners are demanding for reforms in the sector. The situation escalated during the summer when the prices on the Bulgarian energy exchange have doubled in comparison with the averages in the EU. This means that for companies in Bulgaria the transition to “green” energy is not only recommendable, but is becoming a necessity with each passing day.

From the findings, the following suggestions are made that can further improve the role of renewable energy sources in the international business and global economic relations:

- More subsidies and government support are needed for project with renewables – China, EU, USA, Brazil, India and Japan are good examples about that;
- Less bureaucracy will be a powerful stimulus for new investments and the entry of more entrepreneurs in this sphere for each country;

- More specialists in the field of renewable energy are needed, since it is expected the number of installations to increase and new working positions to be available worldwide;
- More funds for research and development of scientists, which are specialized in working with renewable energy sources of all kinds. This could help the improvement of the current level of technology and to increase the efficiency of the installations;
- Introduction of courses in schools and on work seminars will help in educating the population about the benefits of using renewable energy sources;
- Last but not least the “green” energy could assist in preserving the flora and fauna as ecosystems and to enhance the lifestyles and well-beings on all people. For this purpose there is a need of strong political will in order to aid the transition from fossil fuels to a low-carbon economy, despite the powerful lobbyism of conglomerates in coal and petroleum industries.

If all those suggestions are considered and there is a political will to coordinate significant funds in order to support the transition of their countries to a sustainable energy future, then we will be able to enjoy the fruits of the power of renewable energy sources in all their glory. After thoroughgoing evaluation we can logically predict that the usage of renewables will continue to grow in the upcoming years. It will not change only the economical balance of power, but will boost the international business as well.

Family Savings and Their Investment Alternatives in Albania

Ejona Duçi¹
Brikena Leka²

ABSTRACT: The investment deals with the area of uncertainty and is defined as the possession of current financial resources in order to achieve the highest benefits in the future. Two of the most important elements in investment are: time and future. Therefore, information that can help shape a vision for future levels of investment status in security is important. Investments and savings are totally different from the economic perspective. Savings are considered as the margin of income that individuals have available at the expense they make. Saving can be invested to achieve higher returns or not. While Consumption is considered a total expense for goods and services used to meet the needs of individuals over a certain period of time. Through various statistical methods we can determine at macroeconomic level, or individually, investment or savings values. Through this study, we aim to give a clear vision of the investment alternatives offered to individuals in the Albanian market and to analyze the individual investments of Albanian investors.

Keywords: money, investments, consumption, savings, bonds.

JEL: H3, G11.

INTRODUCTION

‘Money never made a man happy yet, nor will it. There is nothing in its nature to produce happiness. The more a man has, the more he wants. Instead of filling a vacuum, it makes one.’
(Benjamin Franklin, 1880)

Money is a very necessary element to meet our basic needs. People's personal finances depend on the skills people must increase the level of income. Some of the income is inherited. This may seem an easy way to financial stability, but it also comes with some responsibilities that are difficult to achieve. People can inherit wealth, but then not knowing how to add or retain, lose or diminish it. Personal finances can be considered as a blessing because they force people to think about their financial decisions. The idea of a lifelong job nowadays can not be found. Many people have started working on more than one job in order to secure the necessary family income. This is due to the lack of job stability and the way to succeed is wealth gathering. Expenditure control is a very important element of personal finance. In addition to daily spending, there is a need for specific, planned or contingency events such as marriage, higher education, family business creation, or serious illness affecting scrutiny. To meet these needs, individuals benefit from savings that are very important in such situations. In general, experts suggest that saving individuals should be at least 10 percent of their income. Keeping money in a locker is not a smart move and savings

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do not help the state or the owner. A worthwhile step would be to invest these savings in order to benefit from returns. In this paper we should suggest the best alternatives to be invested.

THE RESEARCH METHODOLOGY

The main purpose of this paper is to analyze investment alternatives of individuals in Albania. For this purpose, these methods of analysis have been adopted: descriptive, comparative, material review, analysis of third-party search results, and analysis of selected individual research results. The mayor part of the study shall be the presentation and description of the results obtained by a group of individual investors in Albania.

INVESTMENT ALTERNATIVES FOR ALBANIAN INDIVIDUALS

Classical Family Investments consist of (Leka.B, 2009):

1. "Almost Cash" instruments that are considered as a classical investment. Individuals aim to keep cash for high liquidity for any necessity. A good way to save money would be investing in short term maturity instruments with high liquidity and low risk, such as treasury bills, or placing money on bank deposits.
2. Investments in real estate. Albanians invest in real estate because they feel safer when they own such wealth and think about the durability it has and about the potential benefits that it can offer in the future.
3. Investment in shares is a different investment alternative. It is considered tangible, realistic, and enables individuals to diversify their portfolio by reducing the risk that this portfolio can bear, but it also brings greater benefits than all the investment alternatives.
4. To invest in bonds is a second-tier investment for Albanians, although the most commonly widespread are investments in government bonds, are low-risk investments with lower profits than the above-mentioned investments.
5. Investment funds are considered as money collected by households (and other financial institutions), which are managed by a licensed company in order to realize higher profits for investors. There are four investment funds in Albania: "Raiffeisen Prestigj", "Raiffeisen Invest Euro", "Credins Premium" and "WVP Top Invest". These funds represent a different investment option to benefit higher returns.
6. Pension plans are considered individual investments in pension funds, in addition to investments in the obligated public social security scheme. But these types of investments are

very little applied in Albania compared to other forms of investment, as we will see below from official data from the Bank of Albania.

INVESTMENTS OF ALBANIAN INVESTORS – THIRD PARTY RESEARCH RESULTS ANALYSIS

The development of the Albanian market and the overcoming of the transition period from the centrally-based economy to the market economy changed the perception over saving and investing. Albanians still consider the bank deposits as the best investment alternative. This is evident if we refer to the data published by the Central Bank of Albania.

TABLE 1
Investments of Albanian individuals in the financial system

	2016, December		2017, June		2017, December		2018, June		2018, December	
	ALL in MLd	%	ALL in MLd	%	ALL in MLd	%	ALL in MLd	%	ALL in MLd	%
Deposits in ALL	454.3	40.3	465.1	422.1	467.2	41	456.7	41.1	462.8	41.2
Deposits in currency	476.4	42.3	432.8	39.2	469.5	41.2	447.1	40.3	464.6	41.4
Treasury Bonds	65.2	5.8	67.3	6.1	63.6	5.6	65.1	5.9	59.4	5.3
Bonds	64.5	5.7	67.9	6.1	72.1	6.3	77.4	7	77.1	6.9
Investment funds	65.4	5.8	70.8	6.4	65.1	5.7	62.5	5.6	57.3	5.1
Voluntary private Pension funds	1.2	0.1	1.3	0.1	1.6	0.1	1.8	0.2	2.1	0.2
Portfolio of Individuals	1,127	100	1105	100	1139	100	1111	100	1123	100

Source: Bank of Albania and Albanian Supervisory Authority, 2019.

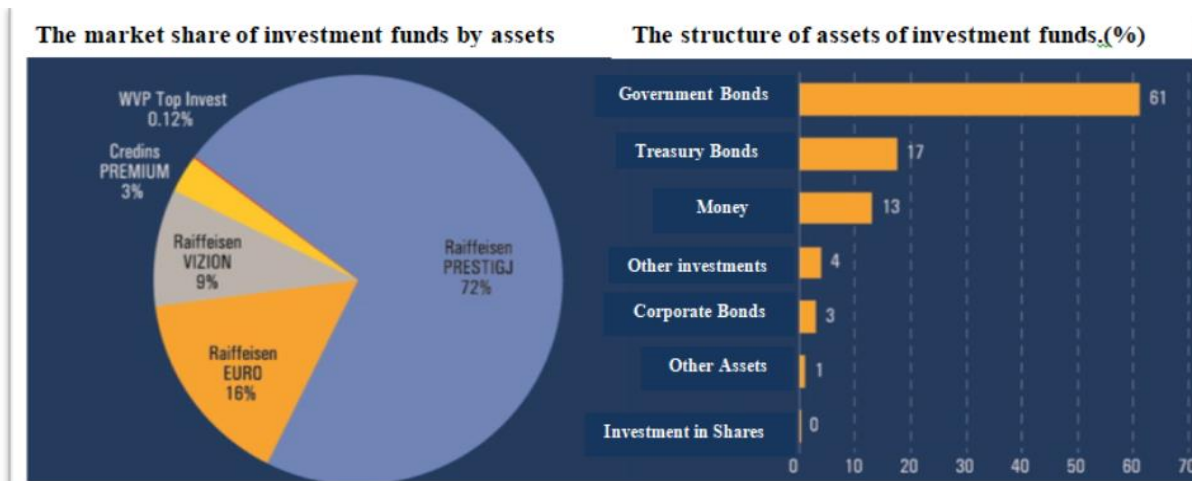
According to the Bank of Albania data, Banks are more reliable for Albanians as they have lower risk than any other investment.

Bank of Albania data show that during the second half of 2018, the savings of resident individuals increased by 1.2% or by ALL 13 billion.

Deposits in Albanian lek and foreign currency accounted for over 80% of total household savings, while investment in bonds, treasury bills and investment funds accounted for 6.9%, 5.3% and 5.1% respectively of total financial assets of individuals.

During the year 2018, individuals increased their investments in deposits (mainly in the form of foreign currency deposits), while investment in treasury bills and investment funds fell slightly in nominal terms (by 8% and 10% respectively) and in weight, to the investment structure.

FIGURE 1
Individual Portfolio Composition, December 2018



Source: Albanian Financial Supervisory Authority, 2019.

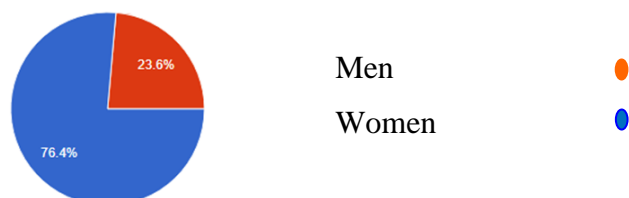
According to the data from AFSA by the end of 2018, the number of investment funds in the Albanian market went to five out of three at the end of 2017. In the investment fund are added also Tirana Bank and National Commercial Bank. Despite this expansion and increase in the supply of investment alternatives, the net asset value in these funds shrank by more than 9% compared to the previous year, stabilizing at 535 million euros. Financial experts, but also fund representatives themselves, admit that the main effect of this contraction has been the performance of interests, both for the euro and the domestic currency. Under the pressure of non-attractive interests, poor financial consumer education, lack of fiscal incentives and a capital market still unformed, investment funds remain far from potential. However, the year 2019 is seen with more optimism from all sides. As the investment fund market expanded with two new funds, the net value of assets invested in these funds in our country in 2018 was closed down. The official data of the Financial Supervisory Authority showed that the Net Asset Value of Funds amounted to ALL 66.09 billion, a decrease of 9.12% compared with the end of 2017.

INVESTMENTS OF ALBANIAN INVESTORS – ANALYSIS OF AUTHOR’S RESEARCH RESULTS

For the purpose of our study, we also used the results of individual study conducted in a group of individual investors in Albania in 2019. The survey was conducted at the request of the authors to compare the investments made by Albanian investors. 218 individuals of different age groups and different social level were surveyed. The analysis of the surveyed group

started with the determination of the gender; Individual study of the respondents, presented in the first diagram.

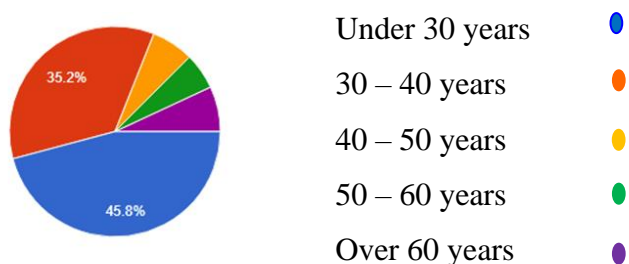
FIGURE 2
Division of the surveyed group in terms of gender



Source: Individual Survey.

As we can notice from the diagram, most of the respondents are women (76,4%) and a small part are men (23,6%).

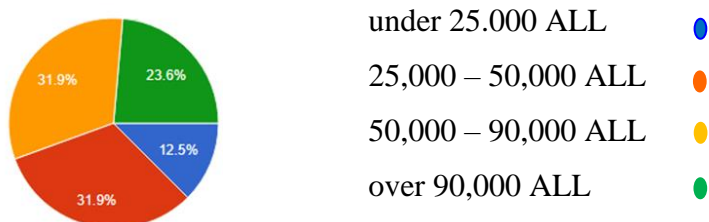
FIGURE 3
Division of the respondents in terms of age(%)



Source: Individual Survey.

As it is seen in the diagram, most interviewers are under the age of 30 with 45.8%, followed by 30-40 years with 35.2%, followed by other low percentage of distribution.

FIGURE 4
Investors revenues in a month (in Albanian Lek)



Source: Individual Survey.

The monthly income of the interviewers is between 25,000 - 50,000, which is around 200-400 euros and 50,000 - 90,000, which is approximately 400 - 740 euros, both of which comprise 31.9% of the respondents. then individuals with income over 740 euros make up 23.6%, and those with a monthly income below 200 euros make up 12.5% in which pensioners' groups who receive low monthly income may also enter.

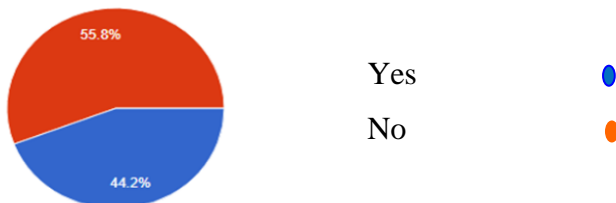
FIGURE 5
Does Albanian individuals save money or not?



Source: Individual Survey.

As can be seen even though Albania's monthly income is low, they follow the tradition of saving money and about 61.1% of respondents save and 38.9% of them do not save.

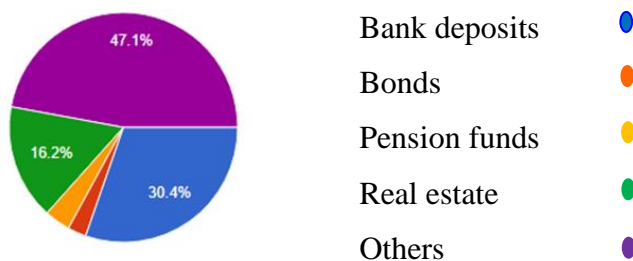
FIGURE 6
Does Albanian Individual invest their money?



Source: Individual Survey.

From the diagram we note that most of the Albanian respondents, despite having the tradition of saving, do not have the culture of investing their money to achieve greater benefits in the future.

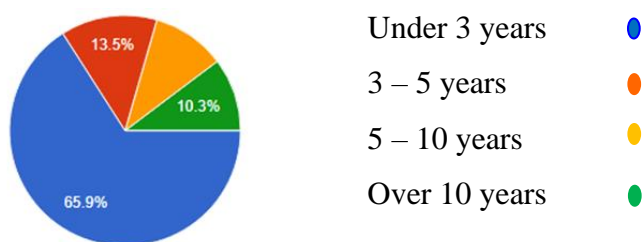
FIGURE 7
Type of Albanian investments



Source: Individual Survey.

As there is still a lack of financial culture, households continue to save money but they keep money home. As it can be seen in the diagrams, most of the respondents say that about 47.1% use other forms of investment, which means that they continue to keep their money at home. Then from the part of the individuals who invest the money, they realize that they trust the banks by placing the bulk of the investments in bank deposits by about 30.4% and then investing in real estate with 16.2%.

FIGURE 8
The experience of investors in years



Source: Individual Survey.

From the diagram we note that Albanian investors are skeptical of investments and they prefer to invest in the medium term. Most of which 65.9% have invested for less than 3 years. Around 13.5% have invested for 3-5 years and 10,3 % of the respondents have invested for 5-10 years and the same percentage 10,3% is for those who have invested for over 10 years.

FIGURE 9
Albanian Suggestions for investment in %



Source: Individual Survey.

Among the suggestions of Albanian investors, the most reliable investments to be suggested are real estate assets of about 46.8%, then suggest other forms such as saving money at home about 21.3%, third place suggestions for bank deposits with about 18.1% and less investment in bonds and treasury bills even though they are safe and almost zero-risk investments.

CONCLUSIONS AND RECOMMENDATIONS

At the conclusion of the study we can say that, based on the results of the data resulting from studies by the Bank of Albania and other financial institutions such as the Financial Supervisory Authority and The Albanian Stock Exchange results that the most reliable investments for Albanian individuals remain bank deposits.

From the results from the questionnaire developed by the authors, we conclude that Albanian individuals are prone to save a good part of their monthly income, but on the other hand it turns out that Albanians have a lack of financial culture to invest the money saved. Most of the respondents reported that they did not use any of the listed investment methods, around 47.1% of them use other forms that indirectly imply that they still keep their money in the house. That part of individuals who invested their money primarily spent investing in bank deposits, with little use of other forms of investment such as investment in treasury bills, shares or government bonds or corporate bonds which are less developed in Albanian market. It is also noted that the experience of individuals to invest is mainly focused on short and medium term. Most of the respondents, about 65.9%, had invoked their money for less than 3 years. This shows that Albanians do not have confidence in banking or non-banking financial institutions operating in Albania. While it is noticed that individuals recommend more investment in real estate because they consider that these types of investments are more durable and have potential for future benefits.

At the conclusion of the study, we would recommend That financial authorities and financial institution has to rise the awareness about the financial culture, as there is still an evident problem refereeing to this culture. Albanian individuals need to be more engaged to receive information on financial culture in order to encourage them to invest their savings so that they will be able to benefit from their savings. We would especially recommend investments in treasury bills and treasury bonds, which are a form of secure, high liquidity and low risk investment, as well as investment funds. This will encourage the development of stock exchange and financial market in Albania. Albanians should have more confidence in the Albanian financial market institutions and be constantly informed about the offers and opportunities that these institutions provide.

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Albanian Economy and the Use of the Euro

Enida Istrefi-Zhugri¹

ABSTRACT: The most obvious phenomenon in the recent years for the Albanian economy is the use of a large amount of Euro currency, and as a consequence of the occurrence of the euroization of the economy. A phenomenon that has affected in general all the transition countries and has affected almost all countries in Southeast Europe. These countries being part of a long transitory process, and on the other hand, have been for a long time under the communist regime of a centralized economy, have lost confidence in the domestic currency, and for this reason, this countries has grown the use of foreign currencies (especially the European currency). Recently the economy of our country has grown and the use of the euro has increased, because we are already struggling to become part of the European Union, and the use of the euro brings us closer to fulfilling the criteria set by the EU. Numerous opinions have been given by field experts regarding the euroization issue of the Albanian economy, most of which emphasize the fact that in the short term this phenomenon has more advantages than disadvantages. To support what we said above, given that Albania already holds the status of a candidate country for EU membership, it is almost impossible to eliminate the use of the euro currency. In this paper we will see at what level is the euro currency compared to the domestic currency in terms of deposits and loans.

Keywords: euroization, economy, asset's euroization, liability's euroization, and transaction costs.

INTRODUCTION

Albania applied for the EU membership in April 2009 and received the candidate status in June 2014. The use of the Euro currency has been increasing year after year as a result of the loss of Albanian citizen confidence in the local currency. Local currency substitution with foreign currency (in our case the Euro) is a phenomenon that has affected all Southeast European countries and especially those of the Western Balkans. Albania for a long time has had a closed and centralized economy, which has affected a little economic development of our country. With the economic opening of the country to a free market economy, Albanian citizens, after the 1990s and beyond, have their deposits / loans denominated in foreign currency in their transactions. The substitution of the domestic currency (Lek) with a foreign currency in each situation and at any point in time, has its positive and negative sides. We emphasize that in addition to weighing the advantages and disadvantages, many other factors are also taken into account when making the decision to place a currency instead of foreign currency; political, economic and financial. Albania has gained the status of a candidate country to join the European Union since 2004 and during this time has made every effort to fulfil all the criteria to be part of the EU. According to academics and financial system specialists, the use of a single currency, especially in the short run, can have a positive impact

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on growth of a country that has opened negotiations to become part of the European Union. Making the decision to join the EU is a great step for each country. While trying to decide whether a country should join or not, one must consider what the EU is offering and what problems may arise. Below we will present the main advantages and disadvantages of being part of European Monetary Union. The reality of recent years shows an increase in preference for strong currencies such as the US dollar and the Euro, which, at a certain level, have created a partial euroization of the economy.

ADVANTAGES AND DISADVANTAGES OF EURO ADOPTION

Advantages of Euro adopting

The reduction of interest rate. The reduction of interest rate fluctuations significantly stimulates foreign investment growth and has a positive impact on fiscal policies. It also has the effect of reducing the cost of public debt that finances the development of various sectors of the economy.

Reduce transaction costs. The long years of Albania's transition, as in many other post-communist countries, have greatly increased the preference of citizen to the use strong currency for purchase and sale transactions, deposits and loans. This behaviour of the citizens has influenced the euroization of our economy. The one-sided euroization of the economy has the effect of reducing transaction costs. On the one hand, reducing transaction costs impacts a loss on the Central Bank's balance sheet, but positively impacts countries with high imports such in Albania case.

Reduction of exchange rate fluctuations. If a country adopts a currency jointly with the countries that will execute the transactions, it avoids the risk of losing the exchange rate fluctuation. Keeping the exchange rate at constant levels brings: price stability, not very certainty among the investors, increase on current account of deficit and lower investment costs.

Disadvantages of Euro adopting

Avoiding the role of the Central Bank. Central Bank of Albania states is the only institution responsible for the conception, design, adoption and implementation of the monetary policy. This policy is designed to achieve the Bank of Albania's primary objective: price stability. Through euroization, states must accept the loss of independence in applying monetary policy by removing the Central Bank's monetary policy enforcement instruments. Lack of cash-

generating income and the losing role of the Central Bank as the last lender, are two of the most important phenomena in the Eurozone's economy.

Loss of Money Outbreak. The money-making profit is the difference between the printing cost (paper and ink) that is effectively spent on printing and putting into circulation the banknote (Xhepa, 2015), and its numerical value written on the banknote. This is the power to put in circulation banknotes of nominal value, multiplied by their real value and as a consequence a gain from sovereignty of the currency is obtained. When currencies printed by the European Central Bank and buying goods using the low-cost currency, a separate purchasing power is acquired here.

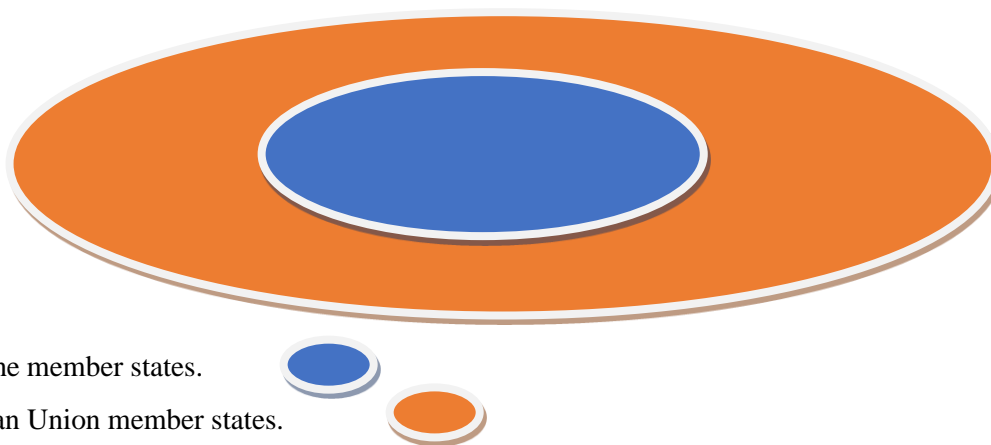
Lender of last resort. Bankruptcy of a bank results in major economic and social problems for each country (as happened in the recent financial crisis). For this reason, the Central Bank takes control of the situation while performing its function as the last lender until the bank comes out of crisis. The problem raised by unilateral euroization, is that the Central Bank loses the opportunity to act as a last lender. Although the European Central Bank is intended to assist banks in the event of liquidity difficulties, the Albanian Central Bank perceives it as a risk of losing the monetary authority, its role as a last lender because their right to lender is destroyed.

European Integration. The European Union is the political and economic union that has 28 European countries under common rules, harmonized legislation, a common market of people, services and goods and common political institutions². The Eurozone is the monetary union of 19 states, which adopted a common currency: the Euro (Imbro, 2015). European integration, and more specifically, European monetary integration, is a unique and unprecedented phenomenon in the world's economic and monetary history. Never before have such a large number of sovereign states voluntarily given up their monetary, exchange rate, and to a large extent, their fiscal policies to a supranational authority. European Union countries have derived benefits above their costs from joining the EU (Zestos, 2006). It is very important to understand two fundamental differences regarding the concept of the European Union and the Eurozone. At first glance it may seem that both concepts express the same thing, but in reality there are two very different notions that differ not only from geographic extent, political conditions but also from member states that are part of or not of each grouping. All of the above implies that if they are to make a division into a separate entity, it would result that the Eurozone is the sub-union of the European Union.

² European Parliament, European Commission, European Council, European Court of Justice.

As we said above, the Eurozone, being the European Union's sub-union, is a space with a smaller geographic scope, which includes 19 member states (from 28 EU countries), (Suster, 2015). The European Union on the other hand is a much wider concept in all the aspects. The European Union would mean a complete set of issues that have their own distinctiveness in economic development, cultural and social development, foreign policy, and the free movement of people and capital. The scheme below help as to understand better the difference:

FIGURE 1
Schematic presentation between EZ and EU



Eurozone member states.

European Union member states.

Source: Author, 2019.

Among the positive aspects of the European Union we can mention:

- The free market, which means free movement, from one place to another, to goods and services.
- The customs union between the Member States, which implies the removal of customs barriers between EU countries and the establishment of preferential tariff policies with other countries.
- The only market, which except as mentioned above, includes facilitating conditions to start a business in each of the member countries.
- The economic and monetary union, which is the last stage of a country can reach a union. Economic and Monetary Union (EMU) means, amongst other things, the above, and the use of a single currency (Euro).

LEVEL OF EUROIZATION IN ALBANIA

According to the Bank of Albania, there are three types of euroization and each has its own measuring tools.

- First it is the euroization of assets of an economy, which is measured by the ratio of foreign currency deposits to local currency deposits.
- Second is the euroization of liabilities of an economy, measured by the ratio of loans in foreign currency to loans in local currency.
- Third, it is the euroization of transactions, which is measured by the level of transactions in foreign currency to the transactions in local currency.
- The first and second can be measured while for the third there are no measures.

After Albania transitioned from a centralized economy to a free market economy, more than half of its loans were denominated in European currency, cars and real estate began to be sold in euros and savings converted to euro. The recent financial crisis has further affected the euro level rise in the economy. After this crisis, foreign currency deposits, especially in euro, increased significantly compared to total deposits in the banking system. At the end of 2018, according to the Bank of Albania, lek-denominated loans accounted for 50.7% of the total, with a slight increase from 50.1% at end-2017, while foreign currency (euro) loans accounted for 49.3% at the end of 2018. Since 2011, when it accounted for 60% of the total, foreign currency lending has been steadily reduced, also as a result of the Bank of Albania's De-euroization policy in recent years. According to data published by the Bank of Albania, deposits in banks fell by ALL 13 billion, or 1.3%, compared to a year earlier. The contraction of deposits was entirely due to the reduction of savings in lek, which fell by 3.7% in total, while in foreign currency it increased by about 1% (given the effect of the depreciation of the euro, real growth was higher). Bank of Albania data, denominated in the respective currency, indicate that euro deposits amounted to € 4 billion at the end of 2018, up 10% on an annual basis, or about € 370 million more (this increase is much higher than the reporting value in lek of foreign currency deposits, where the expansion was minimal by 1% due to the effect of the devaluation of the euro, which fell from lek 133 at the beginning of 2018 to 123 lek at its end). This is the highest ever recorded level of savings in the common currency. This behaviour, when public confidence remains high in the euro, even though the single currency has depreciated against the lek, was contrary to what the Bank of Albania hoped. Bank of Albania, in February 2018 launched a campaign to de-euroization, which aimed to reduce the use of the euro, both in terms of credit and deposits. While the share of foreign currency lending was down by 0.7 percentage points, the same was not the case with savings. At the end of 2018, foreign currency savings amounted to 53.9% of the total, marking the highest historical level. While the euro is attracting savers, it is not the same thing with the borrowers,

individuals as well as businesses (Merollari & Mosko, 2015). They payment have been increased over the past two years, as a result of the depreciation of Albanian lek (ALL) against the European currency. Since 2008 to 2014, the euro has gained consistently point to the Albanian currency, by exchanging currently 140.37 ALL for one euro. But is not the same situation for period 2015-2018 because the euro has depreciated against the Albanian lek as we can see from the table below. A contradictory phenomenon was observed during this period (year 2015-2018). Although the European currency has depreciated very much against the Lek, again the euro deposits have increased, as mentioned above. While the level of foreign currency lending has decreased as a result of the de-euroization policy. Table 1 shows that 1 Euro has been exchanged with Lek 137.28 in 2015, while in 2018, 1 Euro has been exchanged with 123.42 Lek. So they take a simple example if one individual has 1000 euros and wants to allow a deposit, while another individual wants to take a 1000 euro loan today. Assuming today's exchange rate is 1 Euro = 137.28 ALL and after 3 years (when deposit and loan maturity ends) 1 Euro = 123.42 lek.

Simple example

Depositor: today deposits 1000 Euros in his account or the value of: $1000 * 137.28 = 1372.8$ lek and after 3 years has in his account $1000 * 123.42 = 1234.2$ lek). In economic and financial terms the depositor has a decrease in the initial amount (about 11.2% less money) due to the depreciation of the national currency against the euro. But Central Bank data shows that although there is a devaluation of the lek, individuals and businesses still tend to maintain their savings in the euro currency, as a result of their strong confidence in the euro. If the depositor kept the money in the national currency it was protected from exchange rate fluctuations.

Borrower: borrow ($1000 * 137.28 = 1372.8$ lek, money he invests and at the end of 3 years he must repay the bank $1000 * 123.42 = 1234.2$ lek). In economic-financial aspect the creditor results in profit because he borrowed ALL 1372.8 and returns to the bank ALL 1234.2 or in absolute value about 10% less. All this is a consequence of the rise in the value of the lek against the euro (or the depreciation of the euro against the lek).

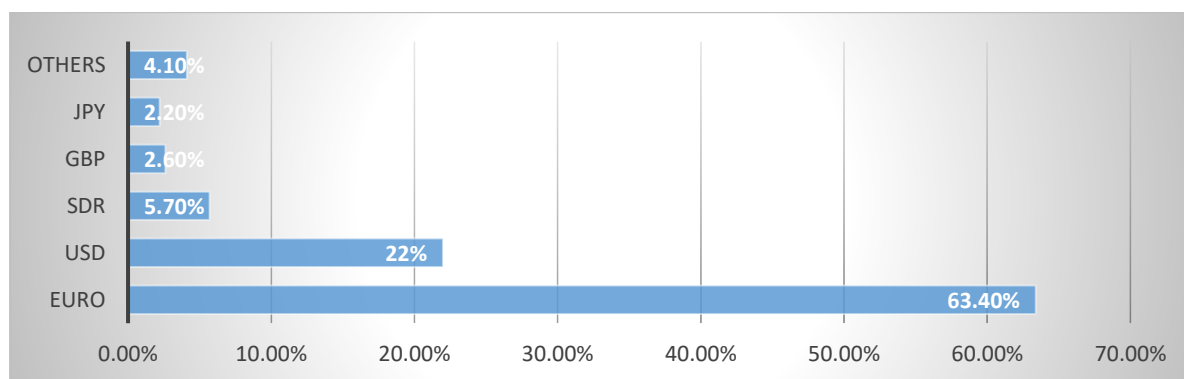
TABLE 1
The average exchange rate Euro/ALL

Year	2015	2016	2017	2018
Average Exchange Rate	137.28	135.23	132.88	123.42

Source: Bank of Albania.

From Figure 2 (data obtained from the Bank of Albania), we see the composition of money in circulation classified by currency, where the highest percentage with 63.4% is followed by the euro currency followed by the US dollar with 22%. This indicates a high degree of euroization of the Albanian economy. In recent years, the European currency has been gaining more and more advantages over the national currency in conducting many transactions, and for this reason the Bank of Albania has drafted the De-euroization package, as we have explained above.

FIGURE 2
Composition of currency reserve by total currency in circulation in Albania

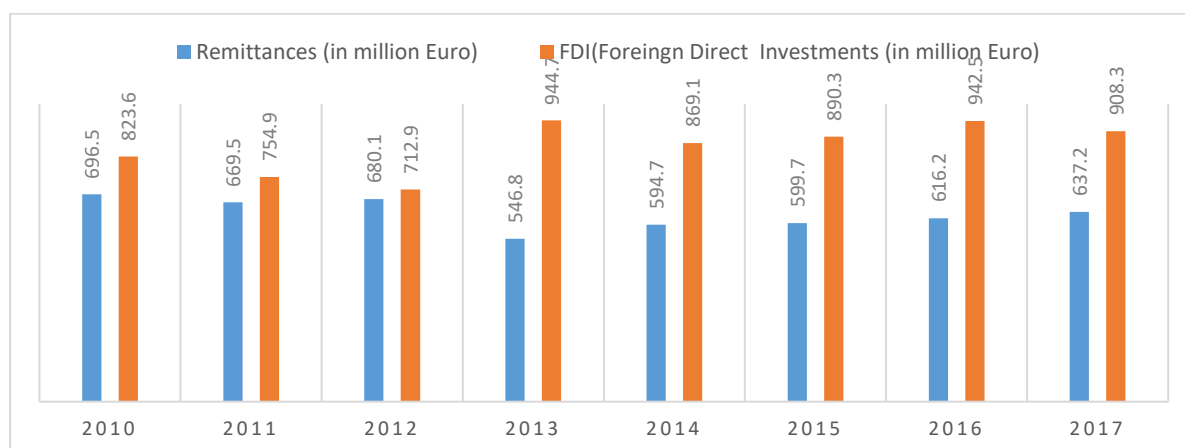


Source: Bank of Albania, 2018.

FACTORS AFFECTING THE GROWTH OF EURO DEPOSITS.

Foreign Direct Investment (FDI) plays a very important role in the economic development of a country, especially in countries in transition (Dumniku & Selmanaj, 2012). Figure 3 gives a clear picture of the level of foreign investments invested in Albania and the level of remittances over the recent years (2010-2017). Throughout the period for which we collected the data, it results that the level of Foreign Direct Investment has been superior to the level of Remittances sent by emigrants. In 2013 we see that we have the highest value of FDI (about 944.7 million euros) because the country had just overcome the negative effects of the financial crisis and was creating the appropriate climate to "invite" foreign investors to shed their capital in Albania. On the other hand, the lowest level of FDI was recorded in 2012 (about 712.9 million euros). This low value compared to the other years is justified by the fact that in Albania there was no economic stability in this period and consequently no suitable climate for investment.

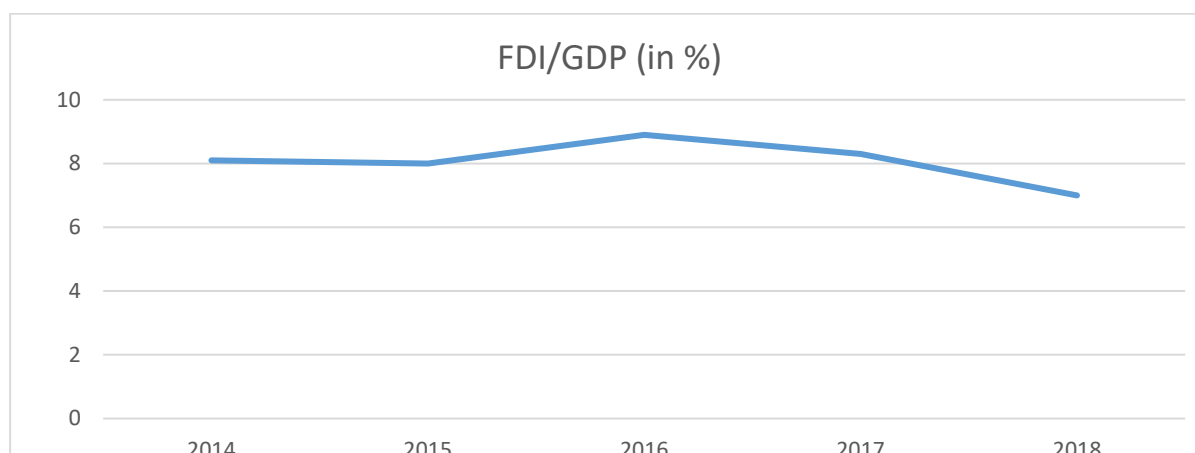
FIGURE 3
The level of Remittances and FDI (in million Euro)



Source: Bank of Albania, 2017.

The second factor that had influence deposit euroization are remittances. Remittances are called non-cash net transfers coming from abroad and are current account of Balance Payments. The level of remittances is always down because the countries that had Albanian emigrants (Greece, Italy, etc.) were deeply affected by the crisis. However, in 2016 and 2017, we see a growing trend of both remittances and FDI, and this is a good indicator of the development of our economy. Since Foreign Direct Investment has always been more weighty than remittances, it is important to present the link between FDI and Gross Domestic Product (period 2014-2018). Figure 4 shows that in 2016 FDI peaked as a percentage of GDP (8.9% of GDP) compared to 8% of GDP in 2015 and 8.3% of GDP in 2017. The decline of FDI after 2016 relates to the Bank of Albania's policy which is contained in the De-Euroization package, a policy that has substantially no use of the European currency. Remittances and Foreign Investments are two main components that has affect the level of euroization of Albania economy. Studies show that the downward trend of remittances in the Albanian economy can be justified by: First, the financial crisis affected the places where Albanian immigrants work and live, and as a result of this crisis their incomes declined sharply. Second, as has been proven in many other studies, in the long run, remittances exhibit a decreasing trend.

FIGURE 4
FDI as GDP percentages 2014-2018



Source: Bank of Albania, 2018.

DEPOSITS AND LOANS IN THE ALBANIAN BANKING SECTOR

Deposits in the Albanian banking sector such as individuals, businesses or government entities have always tended to rely on the euro. Being a country with a long transition for almost two decades, more and more financial agents have resorted to foreign currencies to conduct their transactions because of the loss of confidence in the national currency. This is a matter that has been of great concern to the Bank of Albania and for this reason it has consistently devised strategies to promote savings and borrowing in the national currency. One of the policies pursued by the Central Bank is the setting of higher interest rates on lek deposits versus those in euro (0.2% interest for deposit in lek and 0.05% for those in euro currency). As for lending, the Central Bank has promoted lending in the domestic currency by setting higher interest rates on euro loans and lower lek rates. Despite great efforts, individuals and entities still tend to maintain their savings and be financed in foreign currency rather than in the national currency. According to the data obtained from the Annual Statistical Reports compiled by the Central Bank, the dominant trend of foreign currency deposits versus lek deposits is evident. In 2015 about 50.1% of total deposits were in foreign currency, in 2017 foreign deposits were about 53% of total, reaching the highest value with about 54% of total deposits in May of the current year (2019).

TABLE 2
Deposits in the banking system (in million ALL)

Year	2015	2016	2017	2018	2019*
Deposits in foreign currency	493'221.2	526'511.2	528'006.9	532'625.3	534'712.9
Deposits in national currency	492'352.7	487'535.3	473'663.8	456'216.9	459'462.4
Total deposits	985'573.9	1'013'864.5	1'001'670.7	988'842.2	994'175.3

*until May 2019

Source: Annual Statistical Report, Bank of Albania 2018.

We will also analyse the level of foreign currency loans, where we will also look at the effect of the measures taken by the Central Bank to reduce the level of credit in euro. Have these measures proved effective?! From the table below we can see that, like deposits, foreign currency loans have always dominated against lek loans. In 2015, foreign currency loans accounted for about 56% of the total, while in 2016 and 2017 they accounted for 53% and 50% respectively. As a result of the implementation of the De-euroization package we have a decrease in foreign currency loans during 2016-2017. The lowest level is recorded in 2018 and 2019 where foreign currency loans are estimated at 49% on average for both years. According to many studies, Albania is ranked second in the region after Croatia for the level of euro deposits. This is not a trend for Albanian citizens alone, as this trend has been observed in all Southeast European countries, especially in the Western Balkans. As mentioned above, foreign currency inflows into our country, from Remittances and Foreign Direct Investment, have had a significant impact on the increase of the euro currency in the Albanian economy.

TABLE 3
Credit/loans in the banking system (in million ALL)

Year	2015	2016	2017	2018	2019
Foreign currency credit	306'010	287'643.7	277'018.6	263'949.1	273'294.1
National currency credit	240'783.9	259'547.5	273'261.9	268'869.4	275'628.1
Total credit	546'793.9	547'191.2	550'280.5	532'818.5	548'922.2

*until May 2019

Source: Annual Statistical Report, Bank of Albania 2018.

Many authors, for example, Balino, Bennett & Borensztein study (IMF, 1999), in their study: "Monetary Policy in dollarization economies", the level of dollarization (in our case study euroization) is measured by the ratio of foreign currency deposits to cash. The data's are collected from annual reports of Bank of Albania and are processed by the author. In case when this ratio is greater than 30 percent, the economy has a high level of euroization/dollarization. Until 2006, according to (Merollari & Mosko, 2015), Albanian

economy has a moderate level of euroization (under level of 30%) with an increasing trend. As we show from table 4 ratio: Foreign currency deposits to M3 is more than 30%, with an increasing trend from 2015, reaching its highest value in 2019 about 42.1%.

TABLE 4
Foreign deposits to M3

Year	2015	2016	2017	2018	2019
M3	1'216'175.3	1'263'461.6	1'266'943.7	1'264'127.5	1'268'366.4
Foreign currency deposits	493'221.2	526'511.2	528'006.9	532'625.3	534'712.9
Foreign currency deposits/M3 in %	40%	42%	41.6%	42%	42.1%

*until May 2019

Source: Annual Statistical Report, Bank of Albania 2018.

From the table we see that starting from 2015 and on, foreign currency deposits compose more than 40% or more of the money supply. According to (Merollari & Mosko, 2015), in period 2008-2015, this ratio was nearly 30% or more of the money supply. The data's shows that Albania economy is inclined to a high level of euroization.

In addition to the above indicators, the ratio of foreign currency loans to foreign currency deposits is also used to measure the level of euroization of an economy. This ratio shows that if the increase in foreign currency deposits is the same as foreign currency loans, the ratio goes to one. The table 5 below, specifically tells us the ratio of foreign currency credit to foreign currency deposits in the Albanian banking sector for the period 2015-2019.

TABLE 5
The ratio of foreign currency deposits to foreign currency loans

Value in million ALL	2015	2016	2017	2018	2019
Foreign currency deposits	493'221.2	526'511.2	528'006.9	532'625.3	534'712.9
Foreign currency loans	306'010	287'643.7	277'018.6	263'949.1	273'294.1
Foreign currency loans/foreign currency deposits	0.62	0.55	0.52	0.5	0.51

*until May 2019

Source: Annual Statistical Report, Bank of Albania 2018.

It is clear that the indicators have a positive relationship with each other while the trend of the report is decreasing. The downward trend is explained by the fact that the Bank of Albania has increasingly taken measures to reduce foreign currency / euro deposits and loans. The report suggests that high growth rates of foreign currency deposits in the banking system automatically favour foreign currency loans, and conversely, the high demand for foreign currency loans is based on the increase in foreign currency deposits. Banks may encourage

foreign currency deposits as demand for foreign currency lending is higher, mainly as a result of lower interest rates on foreign currency. It should be noted that from the above analysis more than 50% of total credit is denominated in foreign currency despite the measures taken by the Central Bank to reduce foreign currency deposits and loans. Loans to individuals, businesses and government entities are active with the bank, while deposits are in debt and balancing them is essential to mitigate the risks arising from exchange rate fluctuations. Increasing foreign currency deposits should not be seen as a choice of depositors to optimize their portfolio, but also as a choice of banks, which favour their absorption in order to finance the increasing demand for foreign currency loans and avoid the risk of disrespecting currencies in the balance sheet.

CONCLUSIONS

From the analysis of some of the financial indicators and the literature review we come to some conclusions which we will list below:

- The current level of the ratio of private sector foreign currency deposits to total banking sector deposits, by about 53%, is well above the average level of this ratio for countries with similar economies as Albania.
- The private sector loan portfolio has experienced a decline in the share of foreign currency loans. Although declining, the unsecured loans to the exchange rate continue to constitute a significant share of the private sector credit portfolio.
- The exchange rate of the lek to the major currencies has been stable, even slightly strengthened. The performance of these indicators reflects cyclical factors as well as the dynamics of their interaction.
- The Albanian financial system presents high levels of euroization, reflecting the large-scale use of currency in the Albanian economy. In these conditions, measures to control and lower these levels are gradually needed.
- The Bank of Albania recently adopted a number of measures addressing the liabilities and assets of the banking sector. Based on the relevant Memorandum of Understanding, it is expected that both the Ministry of Finance and the Economy and the Financial Supervisory Authority will identify similar measures for the markets and instruments they oversee. This report will follow the performance of the indicators to assess the impact of the measures taken and the need for their completion in the future.

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Using BD & BDA as Instrument in Accelerating/Supporting Sustainable Economic Growth in SEE

Dimitar Dimitrov¹

ABSTRACT: This paper presents Big Data (BD) and Big Data Analysis (BDA), how these new emerging technologies can support sustainable growth in South Eastern Europe. It shows structured analysis based on results and best practices driven by global companies which operates in European Union which can be leveraged by their rivals who operates in the SSE region in various industries to improve their results. The report also covers some fundamental terms and elements of the technological baseline as well as how BD and BDA can lead to business model innovations.

Keywords: corporate management, decision making, big data, data analysis.

JEL: M15, M20, O32.

BIG DATA DEFINITION

In the modern economy companies face severe competition by their rivals in all areas and markets they operate. To survive the competition, grow their business and be competitive more and more, they must effectively develop embed the following key elements in their operations:

- Innovations generation, introduction and adoption
- Develop new product lines and markets
- Speed and energy to adapt to changes
- Engaging and motivating employees
- Keep optimal cost structure
- Build an efficient and effective management structure

Using technology is becoming not only something that is “nice to have”, but it is a competitive advantage that it is mandatory for their operations and helps companies in being more agile and fast in taking decisions in their day to day operations and supporting their mid and long term projects as well as company`s management within the challenges in the modern world.

According to TNW in January 2017 internet users were 3.8bln, unique mobile users were 4.9bln from which the half 2.5bln are active social users and active Social Media users were almost 2.8bln. According to the same source total monthly mobile data is growing

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exponentially for the last six years from 350PetaBytes to close to 3000PetaBytes and this is only a portion of the total data generated across the world.

The volume of data is growing exponentially and by the 2020 it is expected that it will be more than 16 zettabytes which is 16 Trillion Giga Bytes ([1] Turner et al. 2014). We are currently at the stage where almost every device can be connected to the internet, where Internet of Things (IoT) is not a buzz word but reality and almost all devices and sensors exchange and generates enormous amount of data. This is where Big Data (BD) emerges and where finding a new innovative way of extracting meaningful information and insights will be the cornerstone and key to success.

BD as a term has been used since 1990 and according to internet sources PhD John Mashey was one the first scientist started to use the term. BD usually is used as a definition for sets of data which are that big, complex and unstructured that cannot handled by convention methodologies and software. That is why there are three wide used general characteristics defining these data sets:

- Volume : Huge in quantity of the stored or generated data
- Velocity : The speed at which data is generated processed (near or real time)
- Variety : from simple text to images, audio and complex

Because of its characteristics BD requires special attention by the companies which wants to use it meaningfully and that is why conventional tools and software can provide very limited help in data collection, physical storage its analysis and visualization. In the last fifteen different companies like Teradata, Google, Oracle, IBM, EMC, HP etc. started to develop a special solutions from storage devices to analytics software which to solve above challenges and help business in BD journey.

Traditional data analytics techniques have being design to extract directions and insights from clean, static and structured data with limited volume BD needs to deal with total opposite challenges adding even more like different relational data sources with vast variety of the data type. Said another way BD analytics opens entirely new paradigm for making sense of data, instead of using limited data sets to test a theory the new analytics examines and gives answers that comes directly from the data which is very often not easily readable.

By studying the “Data Smart” companies and history of Data Analytics we can summarize its evolution in two main eras before big data (BBD) and after big data (ABD) (5, Thomas H. Davenport, 2013). In the scientific papers the used naming convention for above stages are Analytics 1.0 and Analytics 2.0. It’s important to be mentioned that last years a new stage started to form, and researchers and scientists started to use term Analytics 3.0.

In the time of Analytics 1.0 the business made a real progress in collecting, understanding and giving managers data proven facts when taking take decisions. That was the time when business started to record, combine and analyze data about their production processes, customer behaviors and interactions, sales etc. Here the new emerging technologies were the key by building custom solution by every company and later after the commercializing the market for these products the era of enterprise data warehouse came. The specific on this stage was that the Analysts spent their time primarily in setting the infrastructure and preparing the data for analysis instead and analyzing the data itself. The other main point at this stage was that it as a reporting – addressing what had happen in the past; describing what happened with little not to say non-explanations or predictions for the future.

Analytics 2.0 came in the mid-2000s when social network firms and internet-based companies like eBay, Google and Facebook started to collect and analyze new and extremely large volumes of data. The data was not only companies' internal data but it has external sources as well e.g. Sensors, Internes, public data, audio and video.

With all this dramatic change this phase raised the requirements for new more powerful tools and the opportunity was used by some companies to materialized and profit it. New products, skills, expertise and professions emerged out the new requirements and market. Hadoop, NoSQL, Apache Spark and many other solutions were started to be developed. Terms like Machine-learning and Artificial Inelegance started to form a real added value for the business.

In the 2.0 phase some very prominent observers have seen the beginning of the next phase (5, Thomas H. Davenport, 2013) which is described with not only further development of the products, service and features but where the large companies which are not just Internet and IT Companies started to adopt above principles to create new products and services in their industries.

From another angle next to the three eras analytics can be defined by its type and capabilities: (1) Descriptive – “What happed?”; (2) Diagnostic – “Why did it happen?”; (3) Predictive – “What will happen?” and (4) Prescriptive – “What should be done”.

Every phase so far brought new challenges as well as opportunities for both vendors that provides the data tools and services and for companies that wants to develop their business further and to use bog data analytics as competitive advantage.

DECISION MAKING

The other main subject of the report is decision making and how this process can leverage the big data analytics to improve companies' outcomes.

Decision making is an integral part of corporate management process. According to the Oxford Dictionary decision making as a term means – the process of deciding about something important, especially in a group of people or in an organization.

The process can be also defined as a possible course of action which might be taken between two or more possible scenarios that aims to find a solution to a problem. In the modern economy and business every company at every management level face lots and lots of challenges every day, their leaders needs to take decisions which usually needs to be taken fast and those leaders does not have all needed information in place or the challenge itself is not “Black or White” or “Yes or No”.

Usually the decision-making process can be decomposed on six main steps:

1. Problem definition
2. Information and data collection
3. Defining an options
4. Evaluating the best option
5. Plan and execute
6. Follow-up actions

When translated in to corporate world the defined six step process enters multi-dimensional world defined by every organization its operations management, culture, leadership style etc. In every company decision making process depends on its complexity, management levels, business specifics and culture. However the simple six step process remains the same when it comes it to dealing with every day challenges and here is where big data analysis can bring enormous added value.

EU DIGITALIZATION MATURITY AND ADOPTION REVIEW

Before going in to details on how BDA and digital technologies impacts SSE sustainability I will review some basis data points and statistics on digitalization in EU, how SSE countries performs against leading economies and what are the factors which drives sustainability and economic growth.

DESI stands for “Digital Economy and Society Index”, defined in short this is complex index which compiles relevant indicators for EU member countries digital performance and competitiveness. The five dimensions of DESI are :

- Connectivity
- Human capital
- Use of internet
- Integration of digital technology
- Digital public service

Quick overview on the top and low performer countries clearly puts a major part of SSE area in the “low performance group”:

Top five 2019 performer countries: Finland (69.9), Sweden (69.5), Netherlands(68.9), Denmark(68.8) and UK(61.2). Bottom five 2019 performer EU countries: Bulgaria (36.2), Romania (36.5), Greece (38.0), Poland and Italy. Table 1 represent the full list with the five dimensions.

TABLE 1
SEE DESI Score for the last three years

	SEE					
	Bulgaria	Romania	Greece	Cyprus	Croatia	SEE Avrg
DESI 2019	36.2	36.5	38.0	45.8	47.4	40.8
DESI 2018	35.5	35.4	34.9	43.2	43.8	38.6
DESI 2017	32.4	32.0	33.1	40.2	41.4	35.8

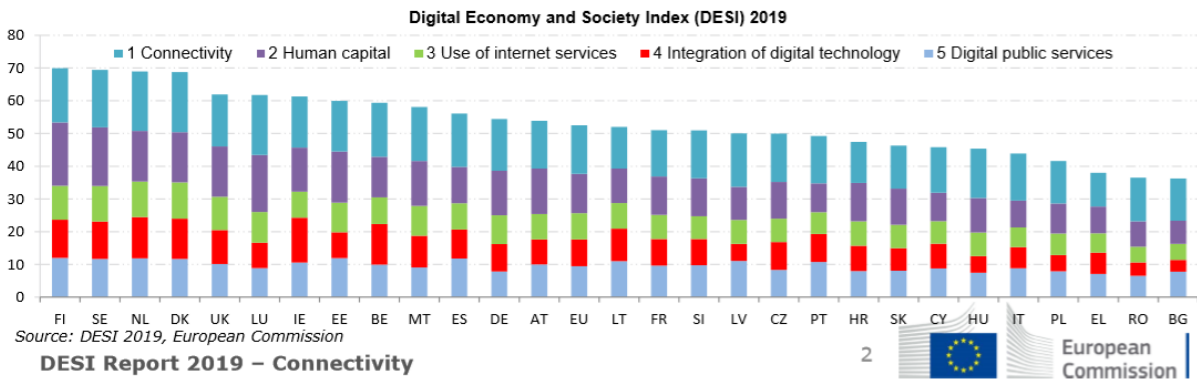
TABLE 2
EU TOP five countries DESI

	EU TOP5					EU TOP5
	FI	SE	NL	DK	UK	
DESI 2019	69.9	69.5	68.9	68.8	61.2	67.7
DESI 2018	66.3	66.9	66.8	66.1	58.6	64.9
DESI 2017	63.7	63.2	63.3	65.6	60	63.2

TABLE 3
Direct comparison between three groups, including average for EU28

	SEE Average	Diff 2 EU	EU 28	Diff 2 TOP5	EU TOP5
DESI 2019	40.7	22.3%	52.5	39.7%	67.7
DESI 2018	38.5	22.6%	49.8	40.6%	64.9
DESI 2017	35.8	23.6%	46.9	43.3%	63.2

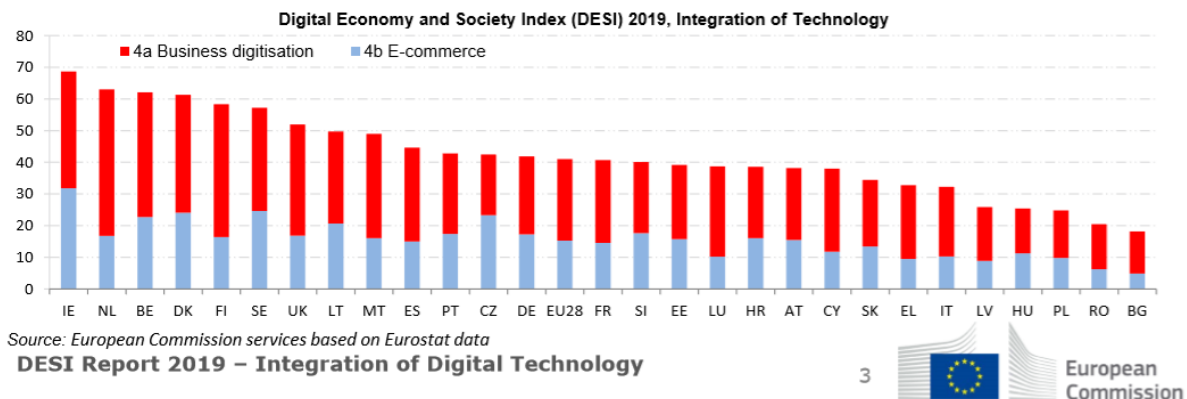
FIGURE 1



Source: European commission.

The parameter which is directly connected with BD / BDA, it`s appliance to economy and sustainability is ‘4- Integration of digital technology’ where we can see the same trend (top and bottom five performers). Digging one level down is shown in the table 2 below :

FIGURE 2

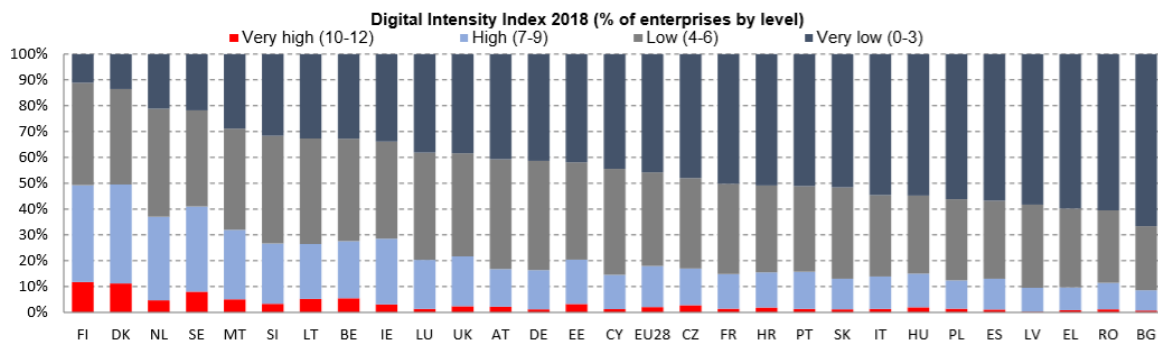


Source: European commission.

From the data we can make couple important conclusions (1) SEE shows growth trend for the presented three years (2) Gap/difference to EU28 and EU Top 5 is getting smaller (3) Even SEE shows progress the gap/difference is still quite significant (4) SSE needs to accelerate furthermore in order to get closer to EU28 average.

Going further in to analyzing who Digital technologies and BD / DBA adoption in EU the graphics below shows Digitalization Index in the Enterprises and how much companies uses and analyses data (BD / BDA)

FIGURE 3

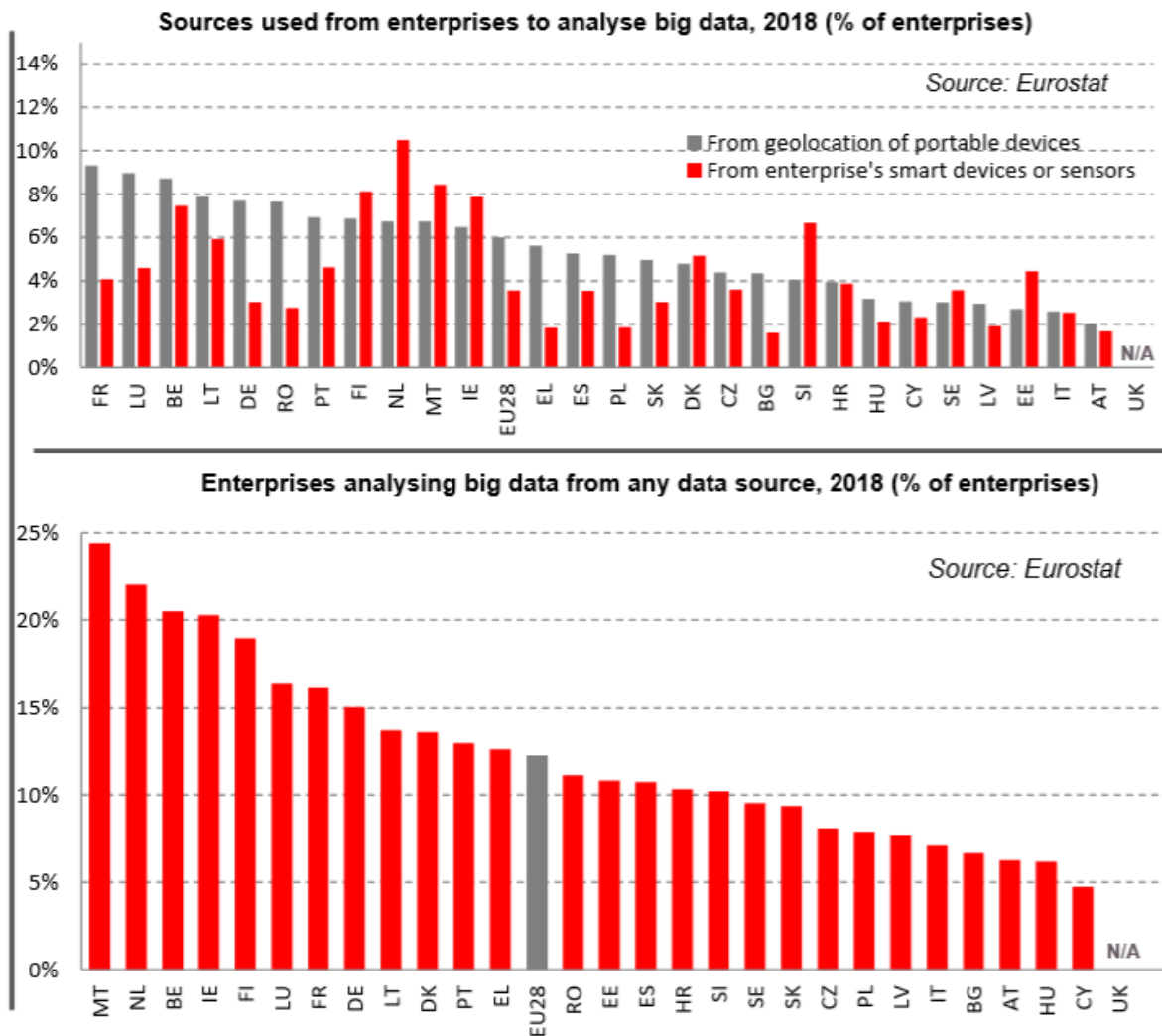


DESI Report 2019 – Integration of Digital Technology



Source: European commission.

FIGURE 4



Source: European commission.

The conclusion we can make is that Top 5 performing countries has significant advantage in Digital Technology integration in their large enterprises and respectively they are leaders in the use of BD / BDA for business purposes. The good news is that the overall adoption is still very low (the leader has ~11% Very high Integration of digital technologies) which gives opportunity to all countries, but still leaders are those countries which usually starts first and in sees and invest in these opportunities.

DIGITAL TECHNOLOGIES ADOPTION AND THEIR IMPACT ON SUSTAINABLE ECONOMIC GROWTH IN SEE REGION

To analyze the impact of Digital technologies, their adoption in EU member states and their sustainable economic growth in SEE I will do review some data points which represents both 1) Digital technology adoption and 2) Economical factors and will review dependencies which can drive either positive or respectively negative impact.

First, in *Table 4 and 5* I will review the seventeen development goals scores for the last three years (in some areas EU commission has published data only for 2 years, not having data for 2019), again separated in three main groups: 1) SSE Region countries 2) EU28 3) EU Top 3 performers according to DESI index reviewed earlier.

TABLE 4

SDG	SEE			EU28			DESI TOP5		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
1	39.10	32.12	32.68	-	15.70	16.60	8.87	7.14	8.24
2	136.36	141.54	129.06	120.70	125.20	112.50	85.42	106.94	89.36
3	-	78.34	79.12	-	80.90	81.00	-	81.68	81.54
4	8.98	9.68	9.78	10.60	10.60	10.70	9.16	8.48	8.34
5	-	10.60	11.15	-	16.00	16.30	-	16.00	16.40
6	-	7.78	8.60	-	2.00	1.90	-	0.27	0.30
7	-	11.72	11.40	-	40.10	39.65	-	51.25	51.26
8	14075.00	13240.00	12780.00	28200.00	27700.00	27100.00	40280.00	39760.00	39100.00
9	-	0.76	0.73	-	2.06	2.04	-	2.57	2.56
10	20540.00	19560.00	18760.00	30900.00	30000.00	29300.00	36540.00	35500.00	34600.00
11	-	32.12	32.62	-	15.70	16.60	-	7.14	8.24
12	0.94	0.94	0.93	2.04	2.07	2.07	2.53	2.60	2.51
13	-	86.92	84.28	-	78.30	77.80	-	75.92	77.70
14	7420.40	7420.40	4301.00	19710.68	19014.89	14126.00	38929.00	38274.00	29733.80
15	30155.20	30155.20	30155.20	28009.00	28221.89	28181.46	25650.40	26922.20	26846.00
16	-	-	1.18	-	-	0.62	-	-	0.66
17	0.12	0.12	0.13	0.48	0.50	0.52	0.68	0.70	0.70

In table above are listed all seventeen Sustainable Development Targets, six of them: SDG5 (Gender pay gap in unadjusted form(% of gross hourly earnings of men), SDG8(Real GDP per capita), SDG9(Gross domestic expenditure on R&D by sector (% of DGP), SDG10(REduced INEQUALITIES Purchasing power adjusted GDP per capita), SDG12 (RESPONSIBLE CONSUMPTION AND PRODUCTION) and SDG13(CLIMATE ACTION) are highlighted as for the purpose of the report I consider have strong correlation with digital technology adoption and actually they can and are affected by BD and BDA thought various ways. The average difference between SSE scores and EU28 is 98% whether the difference to DESI Top5 is 157%. Looking more specifically to average difference between SEE and EU 28 for the six selected highlighted development goals the results shows 68% to EU28, compared to 102% for EU TOP 5 DESI countries. Interestingly when looking in to the average difference between the six selected and the other nine² numbers shows that the difference is 68% to EU28 compared to 94% for DESI TOP5 which actually shows that correlation between the chosen technology related SDGs and Digital technology adoption and implementation is stronger than for the rest of the parameters.

TABLE 5

SDG	SSE difference to EU28			SSE difference to DESI TOP5		
	2018	2017	2016	2018	2017	2016
1	-	51%	49%	77%	78%	75%
2	11%	12%	13%	37%	24%	31%
3	-	3%	2%	-	4%	3%
4	18%	10%	9%	2%	12%	15%
5	-	51%	46%	-	51%	47%
6	-	74%	78%	-	97%	97%
7	-	242%	248%	-	337%	350%
8	100%	109%	112%	186%	200%	206%
9	-	171%	180%	-	238%	251%
10	50%	53%	56%	78%	81%	84%
11	-	51%	49%	-	78%	75%
12	117%	121%	123%	169%	177%	171%
13	-	10%	8%	-	13%	8%
14	166%	156%	228%	425%	416%	591%
15	7%	6%	7%	15%	11%	11%
16	-	-	47%	-	-	44%
17	311%	317%	316%	486%	480%	457%

²SDG14 and SDG17 are excluded. They represent “Life below water” and “PARTNERSHIP FOR THE GOALS” which can be excluded because of the nature of nature the parameters.

Referring back to Table 3 we can see that Difference to the leaders in terms of DESI is improving for the past three years from 43% to ~40% which corresponds to event bigger improvement the selected SDGs up to 12% in SDG8 for example. And even SSE countries improve their overall rating this process needs to be accelerated in order to catch-up with EU28.

CONCLUSION

At the end we might conclude that Economic Sustainability is directly influenced by adoption and implementation of Digital technologies which includes Big Data and Big Data Analysis. In the above sections we observed strong dependency between economic performance and sustainability and investing and adoption of the new technologies. Looking in to the three peer groups 1) SEE 2) EU28 and 3)DESI TOP5 SEE is lacking seriously against EU28 and the gap is even bigger to the third group. On the other side DESI TOP performers shows strong and sustainable economic growth, and they are leaders in majority of the presented parameters which shows that investment in Digitalization leads to positive economic and sustainability outcomes. SEE Countries needs to put more attention on digitalization and invest significantly more in to technology and to create the right environment and policies these new technologies to be adopted and implemented in the public as well as private sectors.

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An Armington Model of Demand: A Comparison Result of Vegetable Products in Mongolia and Hungary

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Robert Magda²

ABSTRACT: Nowadays, food safety and food sufficiency are very important concepts in every country. These concepts are defined as being able to meet population consumption needs from domestic production rather than by importing. In recently years, every country cannot full supply to consumption of population by domestic production. So, foreign trade has been contributing to improve sufficiency and stability of food supplies. Armington model indicates a degree of substitution between domestic production and import products, pioneered by Armington (1969). In other words, Armington long-run elasticity is greater than short-run elasticity meaning that there is close to substitution between domestic production and import products. Especially, consumers preferred the substituting import products with domestic production in the long run. Thus, we can define the demand of optimal allocation for import and domestic production with using this model. For this reason, in this paper aims to carry out a comparison result of selected some vegetables products in Mongolia and Hungary. The Armington elasticity is based on the assumption that specific product is differentiated by its origin. It has been estimated Armington elasticities in short term elasticity is 0.78, in long term elasticity is 1.52 in Mongolia. For Hungary, short term elasticity is 1.34 and long term elasticity is 5.02. It has been evidenced on the basis of the research result that it is possible to substitute some imported goods by domestic production of those goods and probability increase the opportunity of substitution of imported vegetables by domestic production in the future in Mongolia and Hungary.

Keywords: long-run and short-run Armington elasticities, demand of optimal allocation.

JEL: F13.

INTRODUCTION

Mongolia and Hungary moved to the political and economic free market in 1990. Even though these countries have shifted to the market economy at the same time, but difference of agricultural sector's production is high compared to Mongolia and Hungary. Also, these countries territory is very different. For example, Mongolian territory land is 1567.0 thousand km.square and Hungary territory is 93.0 thousand km square. Compared to arable land (% of land area) percent in Hungary was reported at almost 50 % (according to the World Bank information) and Mongolia's arable land percent was reported at only 1 % in 2017. For Mongolia, it has a very extremely weather that is very harsh in crop production. Nowadays, food safety and sufficiency are very important concepts in countries. These concepts are defined as being able to meet consumption needs (main crop products consumption) from

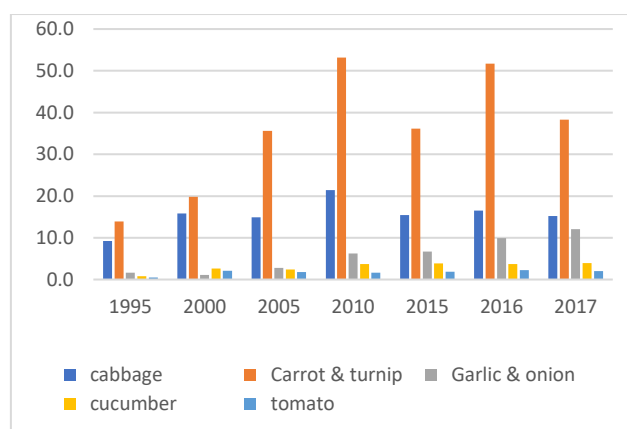
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domestic production rather than by importing. So, these countries crop production sector's market situation shows next section.

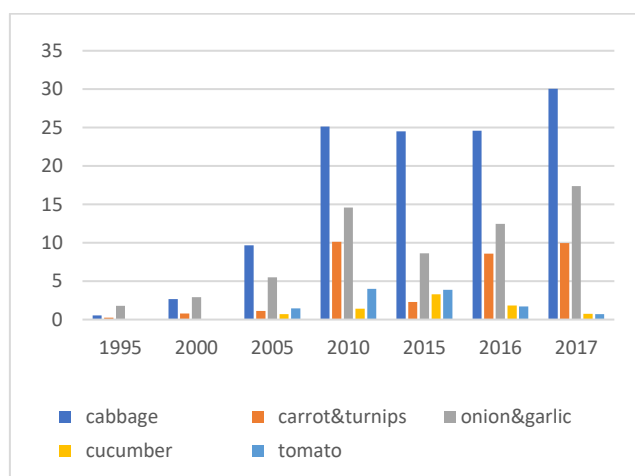
Crop production situation in Mongolia. In 2017, the agriculture sector is a traditional sector of Mongolia, after mining, is the second most important contributor to the Mongolian economy. It was producing approximately for 11 % of GDP (National Statistics office of Mongolia, 2017) as the backbone for population food supply. The total sown area in Mongolia was 524.3 thousand ha in 2017 that is decreased by 33.4 percentage ha in the 1990 year. The sown area was approximately 75 percent cereals production, 2.9 percent in potato, 1.6 percent in vegetables, 5 percent in fodder crops, 15.4 percent in industrial crops and 0.5 percent in others production (NSO, 2017). Figure 1 shows that our selected vegetable's production between 1995 and 2017.

FIGURE 1
Selected vegetable production in Mongolia, thous.tn



Source: Mongolian statistical yearbook, 2017.

FIGURE 2
Selected vegetable import in Mongolia, thous.tn



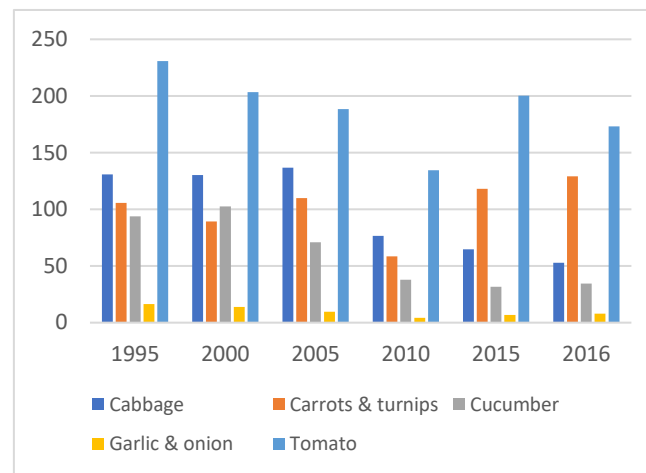
Source: Mongolian statistical yearbook, 2017.

Most of the vegetable production has been increasing until 2016. As of 2017, vegetable production declined due to drought. An estimated 80 percent of the country was affected by drought conditions. This resulted in severe yield and area losses of the 2017 crops, including wheat, potatoes, and vegetables. The 2017 carrot production is estimated at about 21.7 thous.tn, 30 percent less than the previous year. Mongolia started to import of some vegetable for domestic vegetable's consumption from 1995. A glance at the figure 2 shows that some striking similarities vegetables import between 1995 and 2017. As shown in figure 2, there is clear that Mongolia was not too much import of vegetables until 2000. Vegetables import has been steadily growing until 2008. Since 2008, vegetables import has been sharply increasing until 2012. After that, import was slightly fallen for example, in 2018 we imported 28.3 thous.tn of cabbage, 28.1 thous.tn of onion and garlic, 9.6 thous.tn carrot and turnips, 3.2 thous.tn of melons and 0.8 thous.tn of tomato.

Crop production situation in Hungary. Agri-food industry is historically strategic industry in Hungary. In 2017, agriculture sector was share 3.75 percent of GDP. Since 1995, agriculture sector production has been decreasing in Hungary. Agri-food industry is producing high quality products in perfect ecological and climatic positive circumstances. Figure 3 shows that our selected vegetables production between 1995 and 2017 in Hungary.

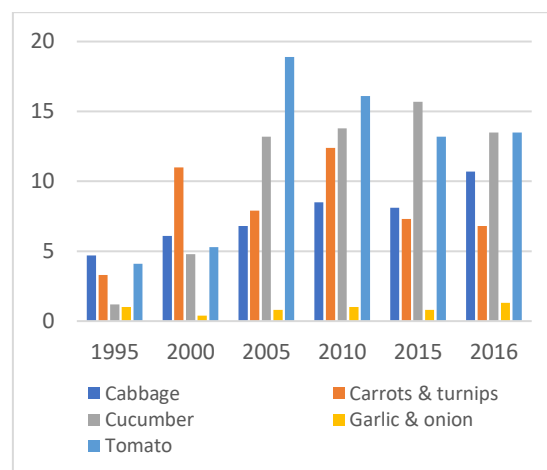
For Hungary, tomato production was higher than other vegetables production (Figure 3). Also, tomato import was higher than other vegetables import. So, Hungarian people mostly used tomato in food consumption. Garlic and onion production was smaller than other production. As shown in figure 4, there is clear that Hungary was not too much import of vegetables until 2000. Vegetables import has been steadily growing until 2005. Since 2005, vegetables import has been steadily increasing until 2016. For example, Hungary imported 10.7 thous.tn of cabbage, 6.8 thous.tn of carrot and turnips, 13.5 thous.tn of cucumber, 1.3 thous.tn of garlic, onion and 13.5 thous.tn of tomato. These countries production and import situation are very different. Thus, our research focus on substitute to possible domestic vegetable for import vegetable and calculate optimal allocation parameter. Also we try to compare substitution elasticity Mongolia and Hungary for selected vegetables.

FIGURE 3
Selected vegetable production in Hungary, thous. tn



Source: FAO stat.

FIGURE 4
Selected vegetable import in Hungary, thous.tn

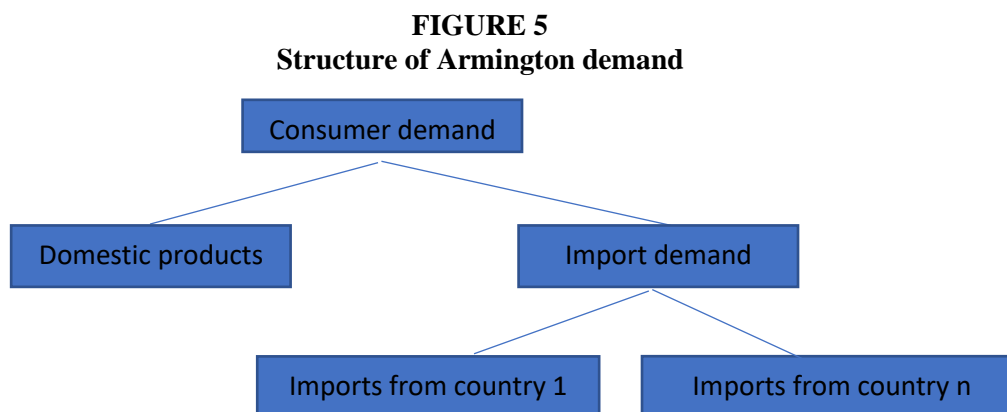


Source: FAO stat.

THEORETICAL BACKGROUND

The Armington assumes that domestic and import goods are imperfect substitutes, that is, the goods are differentiated based on their country of origin. In the following (Armington, 1969), much of the occurring literature in assuming that consumer utility is given in the form of a constant elasticity of substitution (CES) sub-utility function in order to model the demand for domestic and imported product. If consumers are to be satisfied, demand functions state relationships that must exist among specific variables. Consumers satisfaction depending on getting the most for their money, given the available selection of products and their prices. Demand functions may along these lines be seen as statements of conditions under which an index of consumers satisfaction is high as restricted incomes and given prices permit

(Armington, 1969). Based on the Armington approach, the structure of Armington demand has described by following figure 5. In other word, consumer demand constitutes domestic products and import products.



Source: Wunderlich & Kohler (2018).

Armington (1969) proposed to distinguish products from different suppliers in a market. Using a two-stage budgeting method, he supposed in the first stage that a buyer (or importing country) determines the total quantity to buy to maximize the utility, and in the second-stage, allocates shares of the total quantity to individual suppliers (or exporting countries) in order to minimize the costs. In the first-stage equation, he specifies the total demand for both foreign and domestic products as the dependent variable (Huchet & Pishbahar, 2008).

Armington elasticity is an indication of the degree of substitution between domestic products and foreign products. Greater elasticity indicates greater substitution between goods produced home and foreign country. In other word, the Armington elasticity in the long-term was greater than that in the short-term. Despite the fact this implies the product has been imported, it fills in as an alternative for domestically produced commodities. Therefore, buyers do not see any difference between them.

Armington elasticities in short run and long run

The Armington trade model distinguishes commodities by country of origin, and import demand is determined in a separable two-step procedure. This framework has been applied to numerous international agricultural markets with the objective of modeling import demand. In addition, computable general equilibrium (CGE) models commonly employ the Armington formulation in the trade linkage equations (Alston et.al 1990). We assume that consumer

maximizes sub-utility U, who use domestic products and foreign products at same time and same products. Our empirical model is based on Armington approach follow as:

$$U = (\beta M^{\frac{\sigma-1}{\sigma}} + (1 - \beta)D^{\frac{\sigma-1}{\sigma}})^{\frac{\sigma}{\sigma-1}} \quad (1)$$

Where U is sub-utility over the domestic and imported vegetables, M is the imported quantity of vegetables, D is the domestic production, σ is the constant elasticity of substitution between domestically produced and imported vegetables and finally β is share parameter. From this, the first -order condition is:

$$\frac{M}{D} = \left[\frac{\beta}{1-\beta} \cdot \frac{P_D}{P_M} \right]^{\sigma} \quad (2)$$

Where p_D and p_M are the price of the domestic and the imported vegetables respectively. Taking logarithms on both sides of the equation (2). Here is,

$$\ln \left(\frac{M}{D} \right) = \sigma \ln \left(\frac{\beta}{1-\beta} \right) + \sigma \ln \left(\frac{P_D}{P_M} \right) \quad (3)$$

Then, which gives us the condition for optimal ratio of import and domestic demand equation is shown below equation.

$$\ln \left(\frac{M}{D} \right)_t - \ln \left(\frac{M}{D} \right)_{t-1} = \gamma \left[\ln \left(\frac{M}{D} \right)_t^d - \ln \left(\frac{M}{D} \right)_{t-1} \right] \quad (4)$$

Equation(3) is replaced by equation(4) which is established equation (5).

$$\ln \left(\frac{M}{D} \right)_t = \gamma \sigma \ln \left(\frac{\beta}{1-\beta} \right) + \gamma \sigma \ln \left(\frac{P_D}{P_M} \right)_t + (1 - \gamma) \ln \left(\frac{M}{D} \right)_{t-1} \quad (5)$$

$$\text{or } \ln \left(\frac{M}{D} \right)_t = a_0 + a_1 \ln \left(\frac{P_D}{P_M} \right)_t + a_2 \ln \left(\frac{M}{D} \right)_{t-1} \quad (6)$$

Where a_0, a_1, a_2 are estimated parameter, σ^* is substitution elasticity in long term ($\sigma^* = \frac{a_1}{1-a_2}$)

Equation (6) is used to identify σ for each product using the variation in the relative prices $\frac{P_D}{P_M}$ over time so as to explain the variation in the relative consumption $\frac{M}{D}$ over time and ε as the normally distributed error term. Some estimation approach – sometimes supplemented with seasonal dummies or a time trend is used by, e.g., (C. S. and K. Reinert, 1993), (K. A. Reinert & Roland-Holst, 1992), (Gibson, 2003) as well as (Welsch, 2006). It has a number of advantages. Specifically, it directly comes from the CES utility function in

the CGE model and pleasantly makes an interpretation of the theory into an estimation equation, in this manner making usage and interpretation of the results straightforward. In addition, the number of variables is a few and, thus, estimation is possible even with rather short time series. Additionally, the required data is in general available for each country (even though home consumption of domestic production is occasionally covered in international databases) (Olekseyuk & Schürenberg-Frosch, 2016). Hence, we see that

$$a_0 = \gamma\sigma \ln\left(\frac{\beta}{1-\beta}\right) \quad a_1 = \gamma\sigma, \quad a_2 = 1 - \gamma \quad (7)$$

where, a_0, a_1, a_2 - estimated parameter

$a_1 = \gamma\sigma$ – substitution elasticity in short term

$\sigma^* = \frac{a_1}{1-a_2}$ - substitution elasticity in long term

In this model, there will be only one dependent variable and an explanatory variable.

To define optimal allocation parameter

Optimal allocation parameter represent home bias concept. Home bias concept is consumer preferences in favor of home produced over foreign produced goods (Whalley & Xin, 2009). The literature contains a variety of characterizations of home bias. (Bruce A. Blonigen, 1999) they discuss home bias exclusively in terms of preferences in the home country and provide a measure of home bias that links the elasticity of substitution. In other words, it has estimated intercept from Armington elasticity regression. Thus, we get $\ln\left(\frac{\beta}{1-\beta}\right) = \frac{a_0}{a_1}$. We can solve share parameter β is shown that below equation. We have argued that bias of any sort (home and foreign) should lead to a lower elasticity of substitution between the home and the import good. β is consumers put on the import good. It is possible to estimate a home bias more directly, as it is reflected in the relative weight.

$$\beta = \frac{\exp\left(\frac{a_0}{a_1}\right)}{1 + \exp\left(\frac{a_0}{a_1}\right)} \quad (8)$$

β - optimal allocation parameter

Overall, the elasticity of substitution between two goods depends on the degree of product differentiation consumers see goods as imperfect substitutes when there is evident physical product difference. The greater the distinctions, the lower is the elasticity of substitution between the products. However, product differentiation does not turn on real physical differences between goods alone. Physical identical goods may be separated by

accessibility in time, convenience of purchase, after - sales service packaged with the good, or even consumers' view of naturally unobservable quality (Blonigen & W.Wilson, 1999).

We can demonstrate elasticity of substitution which is by ratio of import goods and domestic goods. The Armington elasticity has the form of a substitution elasticity, which is the percentage change in relative quantities of two products of different origins divided by the percentage change in relative prices. The Armington elasticity shows below equation.

$$\sigma = \frac{\partial \ln\left(\frac{M}{D}\right)}{\partial \ln\left(\frac{P_D}{P_M}\right)} \quad (9)$$

Armington elasticities specify the degree of substitution in demand *between similar products produced in different countries*.

Price elasticities of import demand and domestic demand

We try to define elasticities for vegetables price of import demand and domestic demand in short run and long run. In this part, we were calculated the price elasticities for import demand and domestic demand. We can use share parameter in this calculation. The import and domestic production causes from price of import and demand, which is is shown below equation (10) and (11).

$$\ln M = \frac{1}{1-\rho} \ln \beta - \frac{1}{1-\rho} \ln P_M + \ln D - \ln \left(\beta^{\frac{1}{1-\rho}} P_M^{-\frac{\rho}{1-\rho}} + (1-\beta)^{\frac{1}{1-\rho}} P_D^{-\frac{\rho}{1-\rho}} \right) \quad (10)$$

$$\ln D = \frac{1}{1-\rho} \ln (1-\beta) - \frac{1}{1-\rho} \ln P_D + \ln M - \ln \left(\beta^{\frac{1}{1-\rho}} P_M^{-\frac{\rho}{1-\rho}} + (1-\beta)^{\frac{1}{1-\rho}} P_D^{-\frac{\rho}{1-\rho}} \right) \quad (11)$$

The solution to the price elasticities of import and domestic demand, whose derivatives by price of import and domestic from equation (12) and (13).

$$E_{P_M}^M = -\frac{1}{1-\rho} + \left(\frac{\rho}{1-\rho} \right) \frac{\beta^{\frac{1}{1-\rho}} P_M^{-\frac{\rho}{1-\rho}}}{\left(\beta^{\frac{1}{1-\rho}} P_M^{-\frac{\rho}{1-\rho}} + (1-\beta)^{\frac{1}{1-\rho}} P_D^{-\frac{\rho}{1-\rho}} \right)} \quad (12)$$

$$E_{P_D}^D = -\frac{1}{1-\rho} + \frac{(1-\beta)^{\frac{1}{1-\rho}} P_D^{-\frac{\rho}{1-\rho}}}{\left(\beta^{\frac{1}{1-\rho}} P_M^{-\frac{\rho}{1-\rho}} + (1-\beta)^{\frac{1}{1-\rho}} P_D^{-\frac{\rho}{1-\rho}} \right)} \quad (13)$$

The σ and ρ are relative below equation.

$$\frac{1}{1-\rho} = \frac{\sigma}{2\sigma-1}, \quad \frac{\rho}{1-\rho} = \frac{1-\sigma}{2\sigma-1}$$

Where, ρ, σ - elasticities of substitution, $E_{P_M}^M$ - elasticity of import price, $E_{P_D}^D$ - elasticity of domestic price, P_M - average price of vegetables import, P_D –average price of vegetables domestic, β - optimal allocation parameter.

DATA COLLECTION

We required four data series to estimate. Here are, imported selected vegetables quantity, domestic production and their respective prices. The data has been collected from the Mongolian Statistical Yearbook, Mongolian Customs Yearbook for Mongolia and from the Hungarian statistical office information and FAO stat. The period that was analyzed in this study, includes the years between 1995 and 2016. Until the early 1990s, Mongolia and Hungary had a fairly closed economy. At that time—as part of more wide-ranging economic reforms – the trade policy of protection and import substitution was replaced by a much more open trade regime. The estimation of Armington elasticities requires data on both import prices and real-valued imports and requires data on prices of the corresponding domestic goods and real values of domestic sales of domestic goods. All of price in real based on 2015 years. All quantities are given in thousand tons.

RESULTS

We were calculated elasticities of substitutions by using Armington model for agricultural domestic some product for import products. Table 1 shows the result of the model using the Least Squares Method for regression equations.

TABLE 1
Results of estimation between Mongolia and Hungary

№	Types of vegetables	Mongolia		Hungary	
		Elasticity of substitution in short run	Elasticity of substitution in long run	Elasticity of substitution in short run	Elasticity of substitution in long run
1	Cabbages	0.28 (2.42)	1.33	2.17 (1.80)	9.43
2	Carrots & turnips	0.91 (2.20)	2.07	1.93 (2.61)	4.59
3	Cucumber	0.96 (3.92)	1.22	0.61 (1.69)	4.07
4	Onion & Garlic	0.78 (2.04)	1.77	1.85 (3.46)	4.86
5	Tomato	0.96 (3.62)	1.22	0.13 (1.65)	2.17

Here: (...) - is “t” statistic

Source: Results of E-views software.

The product which has the least coefficient of elasticity of substitution is cabbages, and the highest are cucumber and tomato in short term in Mongolia. For long term, the vegetables have the highest coefficient of elasticity of substitution, the smallest are cucumber and tomato

elasticity. For Hungary, smallest coefficient of elasticity is cucumber and highest one is cabbages in short term. The tomato elasticity coefficient is smallest and cabbages coefficient is highest in long term. Study result reveals that long-term elasticity of substitution is higher than short term, which means that those products produced domestically are highly possible to substitute the same types of imported products.

Table 2 shows that optimal allocation ratio. The β shows that optimal allocation ratio for import and domestic production. Estimation reveals that long term optimal allocation ratio is higher than short term. Thus, the optimal allocation has satisfied by share of domestic production in long term is decreasing and share of import in long term is increasing. But optimal allocation parameter results are very different between these countries.

TABLE 2
Estimation of optimal allocation ratio, Mongolia and Hungary

№	Types of vegetables	Mongolia				Hungary			
		β (in short term)		β (in long term)		β (in short term)		β (in long term)	
		Share of import	Share of domestic	Share of import	Share of domestic	Share of import	Share of domestic	Share of import	Share of domestic
1	Cabbages	0.17	0.82	0.41	0.58	0.32	0.68	0.45	0.55
2	Carrots & turnips	0.07	0.93	0.24	0.76	0.22	0.78	0.37	0.63
3	Cucumber	0.14	0.86	0.31	0.69	0.16	0.84	0.44	0.56
4	Onion & Garlic	0.26	0.73	0.39	0.61	0.41	0.59	0.47	0.53
5	Tomato	0.23	0.77	0.28	0.71	0.09	0.91	0.46	0.54

Source: Results of calculation.

For example, for Mongolia, all vegetables optimal allocation parameter (share of domestic production) is trend to increase in the future (in long term). But share of domestic production is decreasing compared to short term parameter. For Hungary, optimal allocation parameter is decreasing in the long term.

Also, we have calculated elasticities of import price and domestic price for some agricultural products. Table 3 show that estimation of elasticities of price.

TABLE 3
Estimation of price elasticities for import and demand, Mongolia and Hungary

№	Types of vegetables	Mongolia				Hungary			
		Elasticity of import price		Elasticity of domestic price		Elasticity of import price		Elasticity of domestic price	
		Short term	Long term	Short term	Long term	Short term	Long term	Short term	Long term
1	Cabbages	-0.636	-0.810	-1.635	-0.198	-0.658	-1.087	-0.343	-0.527
2	Carrots & turnips	-1.081	-4.380	-0.109	-0.339	-0.681	-0.567	-0.320	-0.431
3	Cucumber	-0.591	-0.535	-0.408	-0.463	-2.753	-0.574	-1.773	-0.425
4	Onion & Garlic	-0.969	-0.699	-0.393	-0.302	-0.694	-0.561	-0.311	-0.438
5	Tomato	-1.019	-0.855	-0.044	-0.149	-0.175	-0.656	-1.171	-0.346

Source: Results of calculation.

The elasticities of import for carrots & turnips (short term and long term) which has highest one elasticities in Mongolia. The elasticity of domestic price for cabbages is -1.635 which is higher than other vegetables. In the long term, cucumber's price elasticity is highest one. For Hungary, elasticity of import price highest one is cucumber and smallest one is tomato in short term. The cabbages elasticity is highest one in long term. For elasticity of domestic price, cucumber elasticity is highest one and smallest one is garlic and onion. For long term, cabbages elasticity is higher than other elasticity. Tomato elasticity is smallest in long term. In additionally, elasticities for import price is higher than domestic price elasticities in both countries. It is means consumers have bought prefer domestic production to import. In other words, a 1 percentage point increase in price, consumers prefer import products more than domestic products.

CONCLUSION

The main goal of this paper was to determine if there are reasons why Armington elasticities of substitution between domestic and import good selected vegetables in Mongolia and Hungary. In addition, we calculated optimal allocation ratio and elasticity of import and domestic price these products. In Mongolia, agricultural sector's characteristic is traditional nomadic and pastoralist based, and considerably dependent on natural climate. Share of agricultural sector production is 11 percent of total GDP in 2017. For Hungary, agri-food sector is historically strategic industry in Hungary. In 2017, agriculture sector was share 3.75 percent of GDP.

Elasticity of substitution shows that it is possible to substitute imported goods by domestic goods. For selected products, long term elasticity of substitution is higher than short

term, which means that those products produced domestically are highly possible to substitute the imported products. According to, estimation of optimal allocation ratio, there is strong trend of decreasing domestic production in the future. In price elasticities, import price elasticities calculated higher than domestic price elasticities for selected goods. It is means that consumers prefer consume import product more than domestic product.

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Balancing Market in Bulgaria

Rumiana Valkanov¹

ABSTRACT: The electric power system must be balanced – this means that, at any moment, the produced energy must be equal to the consumption. The balancing market in Bulgaria was established in 2007, but the balancing and the respective costs existed since the genesis of power systems and were an integral part of their operation. In practice, the electricity system operator carries out the balancing costs before the full development of the balancing market and these costs have been included in different components of the regulated prices. From 2014, all electricity traders participate in the balancing market in different forms, thus the balancing costs of the electric power system are allocated to the balancing groups according to their contribution to the overall system imbalance.

The launch of the balancing market for all commercial participants was a necessary and important step towards the liberalization of the energy market in Bulgaria, having the corresponding economic consequences for the different groups of participants. For RES producers, this was another restrictive measure and unforeseen cost in the initial investment plans. Wind farms, for example, are one of the most affected producer groups due to relatively low feed-in tariffs, and at the same time, having some of the highest balancing costs. On the other hand, before 2014, end-users would bear all the costs included in their grid charges for balancing the entire electric-power system. This model was not particularly marketable and fair.

We are faced with the increase of the need for balancing power and energy storage systems which, in moments of surplus, to store the energy, and in moments of shortage, to reallocate pre-stored energy to the grid. This type of technology can actually reduce the balancing costs, both for individual participants and for the whole system if it is well planned and integrated.

Keywords: balancing market, RES Producers, storage systems.

JEL: L94, Q40, Q41, Q42, Q49.

INTRODUCTION

The power system must be balanced – this means that, at any moment, the production of electric energy must be equal to the consumption of electric energy. The Independent Transmission Operator (Electricity System Operator EAD, ESO) and, more precisely, the Central Dispatch Management are responsible for the real-time system balancing. The role of the balancing market is to compensate and penalize market participants through physical settlement, thus trying to make the system as balanced as possible. The balancing market in Bulgaria is hourly and works mainly on a “day-ahead”, which means that the end-users and the producers have to schedule what amount of electric energy they will consume/produce for every hour on the next day.

The end-users form an energy surplus when the requested quantity is greater than the actual consumption for the relevant hour, and an energy shortage when the requested quantity is less than the actual consumption. The producers do the opposite – they form an energy surplus when the requested quantity is less than the produced energy, and an energy shortage

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when the requested quantity is greater than the produced energy for the relevant hour. The balancing prices are determined by ESO and apply to all market participants. In general, the price for shortage is higher than the market price, with the participants having higher costs, and the price for surplus is much lower than the market price, with which the participants have lower revenues.

SHORT HISTORY OF THE BALANCING MARKET IN BULGARIA

The balancing market in Bulgaria started in 2007, but balancing (as well as balancing costs) have existed since the creation of the electricity systems and is an integral part of their operation (since, at any point in time, consumption and production in the system must be equal). In practice, before the full development of the balancing market, the balancing costs are carried out by ESO and these costs have been included in various components of the regulated prices.

Starting in 2007, the balancing market began to work for end-users (consumers) but only for some, and in a very simplified and an ineffective form – only the customers on the free market pay directly for the deviations in their scheduled quantities, paying the full value of their individual imbalances. In 2012, these users can already integrate into balancing groups, where parts of the imbalances between them are netted (aggregated). Since 2014, all market participants operate on the balancing market in different forms (different types of balancing groups), thus allocating the costs for balancing the electrical system individually among all participants.

Types of Balancing Groups

The nature of the balancing groups is to enable the reduction of individual imbalances (energy surplus and energy shortage) of each member of the balancing group by aggregating the quantities for each hour between the balancing group members. The coordinator is responsible for the group imbalances, instead of sanctioning each member separately for its imbalances.

There are several types of balancing groups after the beginning of the balancing market for all market participants in June 2014 (Energy Trading Rules, 2019).

Special Balancing Groups

There are Special Balancing Groups (SpBG) only with members that are end-users (with regulated prices, the coordinator being the respective end supplier or the supplier of last resort) and SpBGs with only members that are RES producers (the coordinator is the respective end supplier). The special balancing groups are determined according to the

geographic location of the different sites and the voltage level, to which they are connected or, more specifically, the grid operator to which the sites are connected. In Bulgaria, the end suppliers/suppliers of last resort are CEZ Electro Bulgaria AD, EVN Bulgaria Elektrosnabdiavane EAD, Energo-Pro Sales AD, ESP Zlatni Pyasatsi OOD (responsible for sites connected to low and medium voltage according to the territory they cover) and the National Electric Company EAD (responsible for sites that are connected at a high voltage level, regardless of the territorial location).

Standard Balancing Groups

Standard Balancing Groups (StBG) can include end-users, who deliver their energy at freely negotiated prices, high-efficiency cogeneration plants and RES producers selling their energy at freely negotiated prices. The members of the StBGs are not limited by the territorial principle or to the voltage level, to which the sites are connected. By July 2019, there are 50 active coordinators of standard balancing groups out of a total of 70 registered.

Combined Balancing Groups

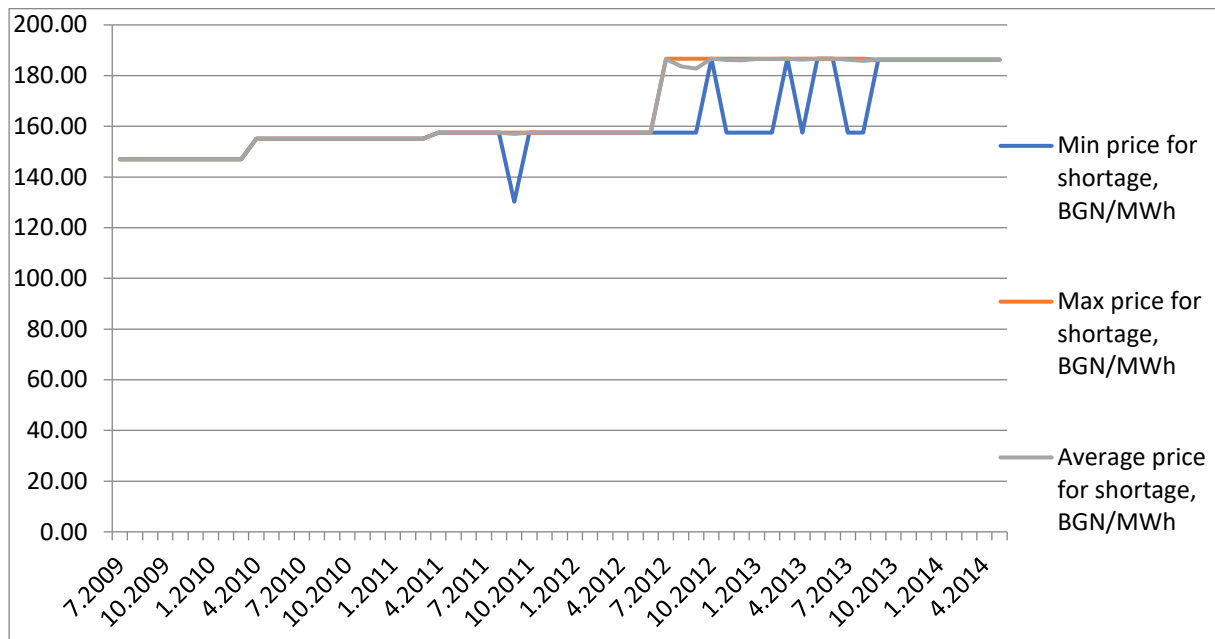
Only RES producers can participate in the Combined Balancing Groups (CBG), irrespective of the location of the sites, the voltage level to which the sites are connected, or how the respective producer sells their energy (at freely negotiated prices or via long-term purchase contracts). By July 2019, there are 11 active coordinators of combined balancing groups out of a total of 16 registered.

Balancing Energy Prices

The balancing energy prices are hourly and are determined by ESO. The prices are the same for all market participants and are calculated according to the Methodology for determining the balancing energy prices as part of the Electricity Trading Rules under Article 21, paragraph 11 of the Energy Act. The Methodology is developed to formulate standard and transparent rules for the formation of the balancing energy price to be paid to the independent transmission operator by the balancing groups' coordinators and the market participants who are individually responsible for their imbalances.

Within the period July 2009 – May 2014, the hourly prices for the energy shortage are with minimum fluctuations (Figure 1). The average price for shortage in the given period is 166.54 BGN/MWh at a minimum price of 130.23 BGN/MWh and a maximum price of 186.65 BGN/MWh. Figure 1 shows that, for most of the period, the shortage price is fixed for the respective month.

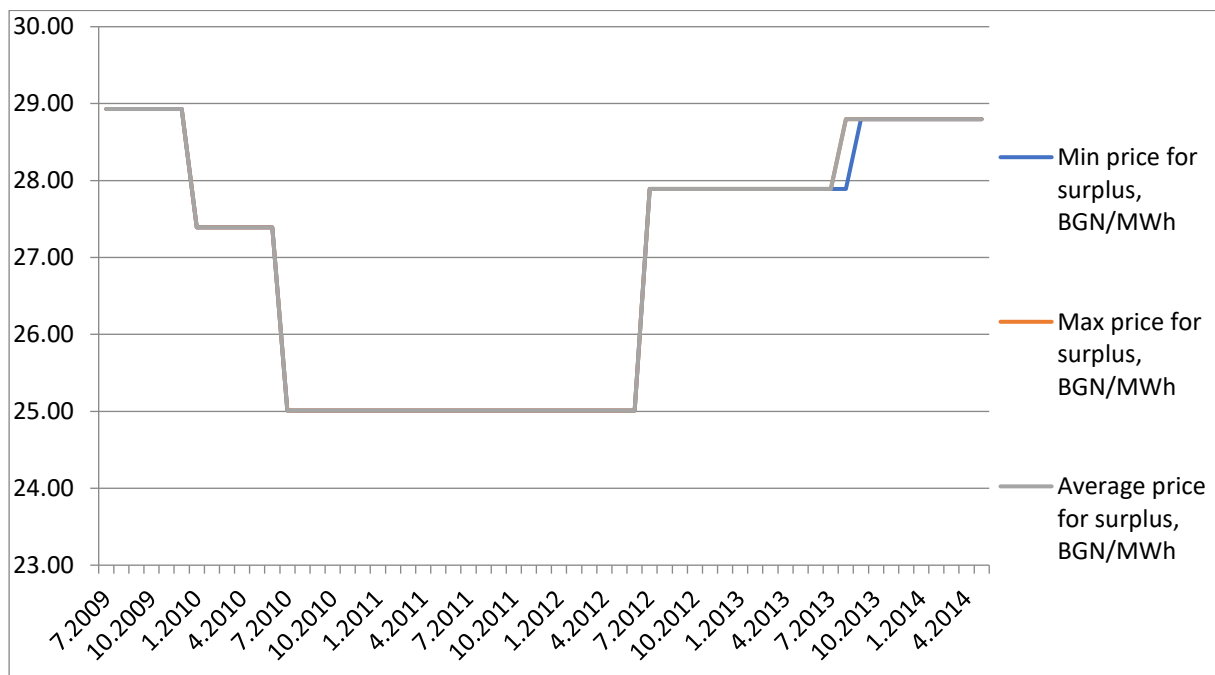
FIGURE 1
Price for shortage for the period 07.2009 – 05.2014



Source: Transmission System Operator EAD.

The hourly surplus prices for the same period are basically the same (Figure 2). The average surplus price for the specified period is 26.93 BGN/MWh with a minimum price of 25.01 BGN/MWh and a maximum price of 28.93 BGN/MWh. Figure 2 shows that, over the whole period, the surplus price is fixed for the respective month.

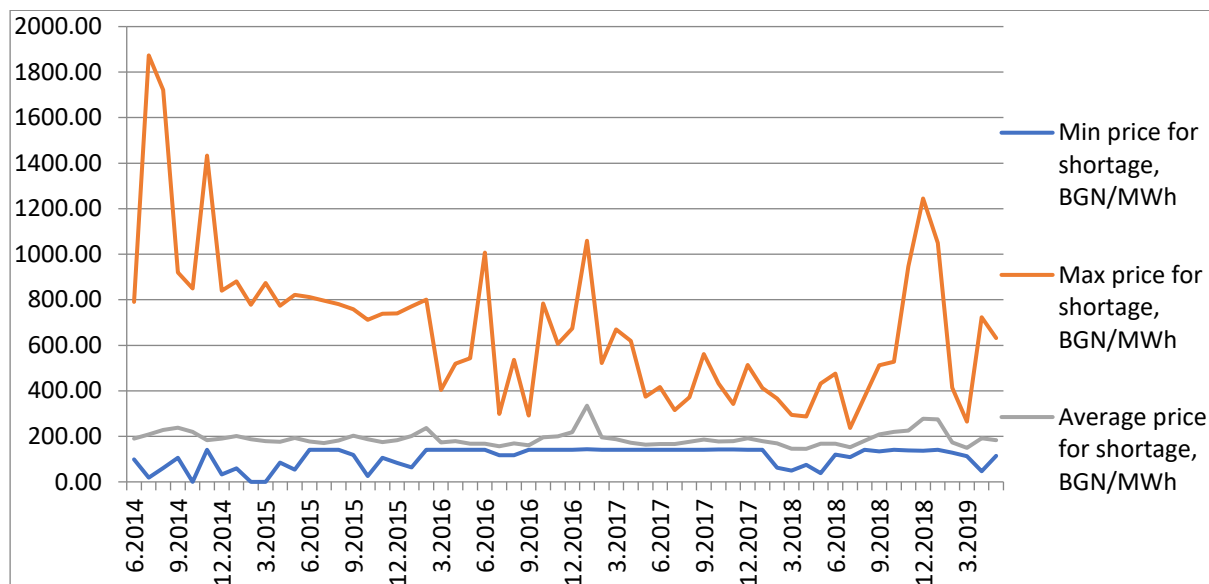
FIGURE 2
Price for surplus for the period 07.2009 – 05.2014



Source: Transmission System Operator EAD.

Since June 2014, the shortage and surplus prices are different for each hour, and for the period June 2014 – May 2019, the average price for shortage is 190.06 BGN/MWh, but the hourly values range from 0.00 BGN/MWh to 1 873.41 BGN/MWh (Figure 3).

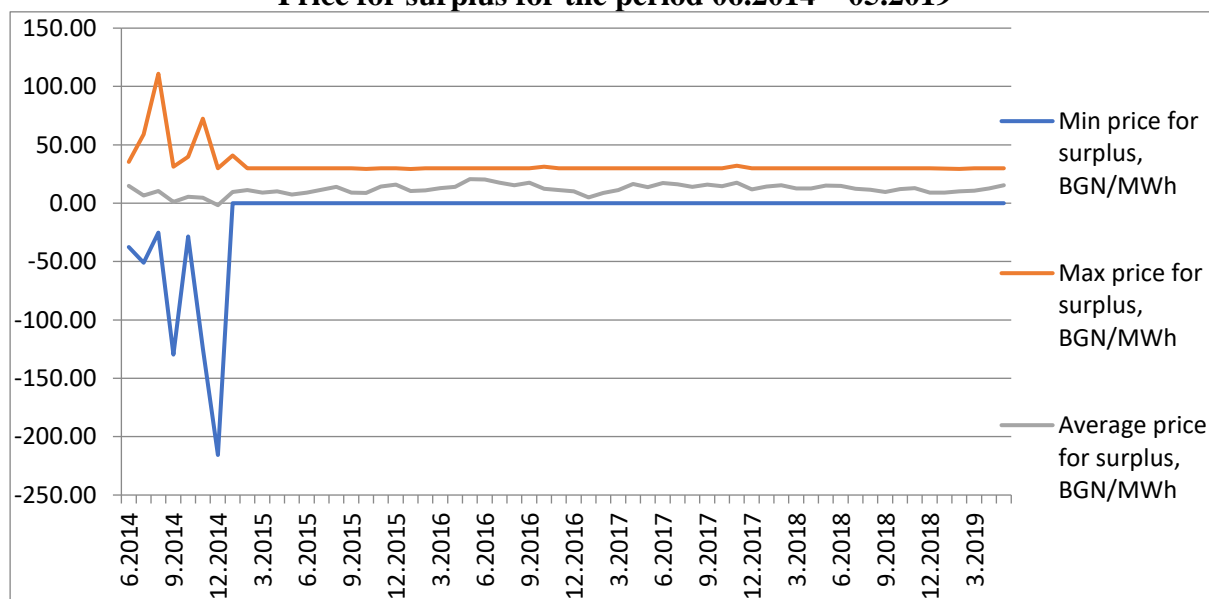
FIGURE 3
Price for shortage for the period 06.2014 – 05.2019



Source: Transmission System Operator EAD.

The surplus prices varied widely between June 2014 and December 2014. There were also negative surplus prices, reaching values of -215.70 BGN/MWh. Since January 2015, up until now, the surplus prices vary between 0.00 BGN/MWh and 30.00 BGN/MWh (Figure 4).

FIGURE 4
Price for surplus for the period 06.2014 – 05.2019



Source: Transmission System Operator EAD.

The cost of balancing energy for shortage for a given settlement period (hour) is defined as the ratio of all costs of the independent transmission operator for purchase of balancing energy against the negative net imbalances of all balancing group coordinators for the relevant settlement period.

By Resolution II-40/29.12.2017 of the Energy and Water Regulatory Commission (EWRC), the balancing prices, in particular, the prices for shortage are related to the prices for baseload on the Independent Bulgarian Energy Exchange (IBEX) on the Day-ahead market. Thus, balancing prices are already directly related to the cost of energy and a rough estimate of balancing costs can be made taking into account the prices of IBEX for the relevant month.

On the 23rd of November 2017, the Regulation (EU) 2017/2195 establishing a guideline on electrical energy balancing was published. The Regulation establishes a set of technical, operational and market rules that regulate the work of balancing markets, common for the European Union. The main objectives are to enhance competition, increase the liquidity of the balancing markets, optimal management and harmonized coordination of the European transmission grid, operational security, integration of the balancing markets and maintaining the balance of the European transmission system in the most efficient way, equality and ensuring competition between the balancing service providers, switching to a 15-minute settlement interval, etc.

EFFECT OF THE BALANCING MARKET

The introduction of the balancing market for all market participants was undoubtedly a necessary step towards liberalizing the market, but we cannot say yet that it is working efficiently. There is still a lack of full transparency in the formation of the balancing prices, leading to mistrust in the regulatory structures by the market participants. There are not enough flexible suppliers of balancing energy, which leads to situations where, in the same hour, capacities are being activated to compensate for shortage and surplus in the system. This, in turn, leads to extremely high values of the balancing prices in certain hours, as seen in Figure 3 above.

For some of the market participants (in particular the RES producers), the balancing costs proved to be another unforeseen expenditure in the investment plans. In the last years, RES producers have been charged with additional fees (access fee for solar power plants and for wind power plants, five percent of the revenues to the Electricity System Security Fund for all producers, setting quotas for payment of feed-in tariffs, introducing balancing cost,

etc.). For most of the public, these fees seem negligible against the feed-in tariffs, but from the perspective of investors, this is a large percentage of unforeseen costs in the initial investment plans. To illustrate all these costs, in Table 1 below, a comparison is made between the revenues from the sales of electric energy and the costs related to the statutory charges, of a wind power plant with an installed capacity of 4 MW and a feed-in tariff of 188.29 BGN/MWh for the calendar 2018.

TABLE 1
Comparison between the revenues and cost from additional taxes of a
Wind power plant for one year

Month	Production, MWh	Feed-in tariff / Free Market Price, BGN/MWh	Revenue, BGN	Balancing price, BGN/MWh	Access fee, BGN/MWh	5% to ESS Fund, BGN	Total cost from additional taxes, BGN
January	1 200	188.29	225 948	20.00	3.02	10 097	37 721
February	1 300	188.29	244 777	20.00	3.02	10 939	40 865
March	1 100	188.29	207 119	20.00	3.02	9 256	34 578
April	1 000	188.29	188 290	20.00	3.02	8 415	31 435
May	800	188.29	150 632	20.00	3.02	6 732	25 148
June	600	188.29	112 974	20.00	3.02	5 049	18 861
July	500	188.29	94 145	20.00	3.02	4 207	15 717
August	700	188.29	131 803	20.00	3.02	5 890	22 004
September	800	188.29	150 632	20.00	3.02	6 732	25 148
October	1 000	92.00	92 000	20.00	3.02	3 600	26 620
November	1 200	92.00	110 400	20.00	3.02	4 320	31 944
December	1 200	92.00	110 400	20.00	3.02	4 320	31 944
Total	11 400		1 819 120			79 557	341 985

Source: Energy and Water Regulatory Commission, Transmission System Operator.

The energy price on the free market is the average price achieved by the wind power plant on the Bulgarian Independent Energy Exchange on a Day-ahead market in 2018, and the balancing price is an indicative average price for 2018. We have to add that, for the period July 1st 2019 – June 30th 2020, the access fee for wind and solar power plants is increased to 5.14 BGN/MWh, which will further increase the costs of the producers (Resolution II-19/01.07.2019). At the distribution of income and expenses shown, in the feed-in tariff periods, the statutory fees represent 17 percent of the revenues and 29 percent of the period with freely negotiated prices.

Balancing costs account for between 64 percent and 75 percent of the total cost of fees, with balancing prices being among the most non-transparent determined prices on the market.

Additionally, revenues from the five percent charge to the Electricity System Security Fund are primarily intended to finance the premiums of the RES producers with feed-in tariffs. It is unnatural for new market-based RES power plants to support the implementation of the national carbon reduction targets without further burdening society and consumers while, at the same time, being obliged to support the payment of feed-in tariffs to other RES producers. All this leads to the withdrawal of existing investments and lack of financial meaning for new investments in the sector.

OPPORTUNITIES FOR OPTIMIZING BALANCING COSTS

In the developed countries, over the last five years, as the technology develops a group of participants has emerged, with systems that, through their capabilities of advanced storage and reusable energy methods, are used for the following market applications (the so-called “Storage Systems”):

- Realization of a positive financial effect, using the different energy prices in different time zones within one day;
- Participation in a balancing group, optimizing (reducing) the balancing costs for the whole group;
- Providing system services to the grid operators;
- Providing backup power when there is a grid outage.

Some of the positive effects of well-regulated and integrated Storage Systems directly affect the balancing costs. Smaller projects with capacities of up to several MW may reduce costs in the balancing groups. When there is capability for monitoring the consumption and production of a given balancing group in real-time, the coordinator knows at a given time whether the group is in a position of energy surplus or energy shortage. With Storage Systems in the group, the coordinator can activate or limit overall production, thus reducing the imbalance in the group and hence the balancing costs.

In the case of large-scale projects, they can also be used as a source of balancing energy for the entire system, serve to regulate the system, etc. In this way, the balancing energy suppliers will be even more flexible and “double balancing” will be avoided.

It is a matter of time for the Bulgarian regulators to create the prerequisites for the development of Storage Systems on the Bulgarian market. With the development of the new policies and trends in the electric power generation, the need for these systems is increasing. In Bulgaria, there is currently a similar system – Pumped Storage Hydro Power Plant “Chaira” (PSHPP), which is built using old technology (pumping and storage of water, which

is subsequently transformed into electric energy). There are other smaller PSHPPs, but these technologies lack the efficiency, flexibility and functionality of the modern Storage Systems with modern batteries, and the possibility of mass multiplication in the grid.

CONCLUSION

Undoubtedly, the balancing market in Bulgaria is much more developed than in previous years, but there are still many steps that need to be taken to make it flexible and fair enough. At a systemic level, the introduction of a balancing market in Bulgaria was an important and necessary step for market liberalization, and currently, all market participants are part of the balancing market and each takes its share of the total cost. The full integration of Regulation (EU) 2017/2195 lies ahead, bringing together neighboring markets, which will lead to new opportunities for the optimization of the balancing costs.

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The Green Climate Fund – Projections vs. Reality

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ABSTRACT: The Green Climate Fund (GCF) is supposed to be the main institutional tool that assists the achievement of the goals of the Paris Agreement and Agenda 2030's Goal 13: Take urgent action to combat climate change and its impacts. The original projections envisaged the mobilization of \$100 billion annually by 2020 – a demonstration of the international community's determination to address the climate challenges accordingly. However, 5 years after the GCF's initial resource mobilization (IRM) reality is very different: the Fund's capital by April 2019 stands at \$10.3 billion – i.e. the same resources that were pledged under the IRM in 2014, with no additional commitments from the last 5 years – which is telling of the interest from both the public and the private sector. The main reason for the lack of interest seems to be the GCF's slow progress: as of June 2019 the GCF has spent \$2 billion for projects under implementation. Even if the total amount of \$17.6 billion mobilized for approved projects in GCF financing, plus co-financing is considered, that would mean an average annual mobilization of \$4.4 billion (since the GCF became operational in 2015).

If we assume that \$100 billion per year is a realistic assessment of the needs for investment in climate change solutions globally, then it is clear that GCF's current pace of operations will contribute very little towards the meeting of Goal 13 by 2030. This paper examines the challenges that the GCF faces, and concludes that for all its slow progress the GCF has an important role in mobilizing climate finance in countries or regions within countries where the incentives for private investors are limited.

Keywords: Agenda 2030, Climate Change, Green Climate Fund.

JEL: Q20, Q40, Q50, Q54, Q56, Q58.

INTRODUCTION

The Green Climate Fund (GCF) was set up in 2010 by the 194 countries that have ratified the United Nations Convention on Climate Change (the Convention). GCF is part of the Convention's financial mechanism and its main goal is to deliver equal amounts of funding for mitigation and adaptation in developing countries, while being guided by the Convention's principles and provisions.² Those principles and provisions were adopted in 1992 with the acknowledgements that (a) 'change in the Earth's climate and its adverse effects are common concern for humankind', and (b) 'that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and effective capabilities and their social and economic conditions'.³ Here is a summary of the principles:

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² <https://www.greenclimate.fund/who-we-are/about-the-fund>.

³ <https://unfccc.int/resource/docs/convkp/conveng.pdf>.

1. Protection of the climate system for the benefit of present and future generations. The leading role is assigned to developed countries.
2. Full consideration for the specific needs and special circumstances of developing countries – especially the most vulnerable.
3. Taking of precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects.
4. Promotion of sustainable development.
5. Cooperation to promote a supportive and open international economic system that would lead to sustainable economic growth.

The provisions are to be found in Articles 4-26 of the Convention, and they cover a number of implementation, administrative and technical issues – such as:

- Commitments to (a) develop, periodically update, publish and make available national inventories of anthropogenic emissions, (b) formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change, etc.
- Support for international and intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities, particularly in developing countries
- The development and implementation of educational and public awareness programmes on climate change and its effects
- The establishment of a Conference of the Parties – the supreme body of the Convention that should keep under regular review its implementation
- The establishment of financial mechanism

The concept for the GCF was proposed in 2009 during the Conference of the parties to the Convention in Copenhagen, Denmark. It seems that with the creation of the GCF the Parties wanted to address the challenges of climate change on a whole new level – the dismal truth is that notwithstanding the ambitious wording of the Convention and its strive for scope, the ultimate objective – *stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system* – has not been achieved.⁴ According to data from the National Oceanic and Atmospheric Administration (USA) the concentration of all major greenhouse gases in the Earth's atmosphere is growing:

⁴ The Convention entered into force on 21 March 1994.

TABLE 1
Greenhouse gas concentrations

Type of gas/measure	1995	2005	2015	2018
Carbon dioxide (CO ₂)/ parts per million	360	377	400	408
Nitrous oxide (N ₂ O)/ parts per billion	311	318	328	330
Methane (CH ₄)/ parts per billion	1750	1770	1830	1850

Source: NOAA, <https://www.esrl.noaa.gov/gmd/aggi/aggi.html>.

GCF – DEVELOPMENTS AFTER 2014 AND CURRENT STATUS

The initial resource mobilization of the GCF happened in 2014, and just as the Convention envisages, the leading role was assumed by developed countries – they pledged around \$10 billion. The GCF became operational in 2015 – after the conversion of a pledge from Japan brought the Fund over the 50% threshold of funding promises, and thus the GCF was able to start allocating its resources.⁵ Also in 2015 the GCF took center stage with becoming part of Agenda 2030's *Goal 13: Take urgent action to combat climate change and its impacts*,⁶ and was listed among the main tools for the implementation of the Paris Agreement (PA) – the first-ever universal, legally binding global climate deal. Under the PA, developed countries were supposed to mobilize \$100 billion⁷ per year by 2020 for climate finance, covering both mitigation and adaptation action.⁸ And since these two types of action are at the core of the GCF – the Fund aims for a 50:50 balance between mitigation and adaptation investments over time – the aforementioned \$100 billion have frequently been linked entirely to the GCF.^{9,10}

However, it should be noted that a direct link between the GCF and the \$100 billion does not exist in the PA and the Decisions, based on the PA: *nowhere in the documents has the GCF been explicitly designated as the exclusive financial mechanism*. A partial link can be derived from Articles 54 and 59 of the Decisions adopted on the basis of the PA. Article 54 states ‘... prior to 2025 the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall set a new collective quantified goal from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries’. In Article 59 the Conference of Parties ‘Decides that the Green Climate Fund and the Global Environment Facility, the entities entrusted with the operation of the Financial Mechanism of the Convention, as well as the Least Developed Countries Fund and the Special Climate Change

⁵ <https://climatefundsupdate.org/the-funds/green-climate-fund/>.

⁶ <https://www.un.org/sustainabledevelopment/climate-change/>.

⁷ Throughout the article ‘\$’ relates to the US Dollar.

⁸ https://ec.europa.eu/clima/sites/clima/files/international/negotiations/paris/docs/qa_paris_agreement_en.pdf.

⁹ <https://www.nbcnews.com/politics/white-house/why-trump-seeing-red-about-green-climate-fund-n767351>.

¹⁰ <https://www.cbsnews.com/news/paris-climate-agreement-what-you-need-to-know/>.

Fund, administered by the Global Environment Facility, shall serve the Agreement.’¹¹ Notwithstanding the lack of a direct link in the documents, the direct link between the GCF and the \$100 billion is evident from both the words of (then) UN Secretary General Ban Ki-Moon and the GCF’s ‘Resource Mobilization’ section:

- **Ban Ki-Moon, April 2015**, at an International Monetary Fund event in Washington D.C. (USA): ‘We need a credible trajectory for realizing the \$100 billion goal per year by 2020, as well as the operationalization of the Green Climate Fund.’¹²
- **GCF – Resource Mobilization**: ‘Among these concerted efforts, advanced economies have formally agreed to jointly mobilize \$100 billion per year by 2020 ...’, ‘At the G7 Summit in June 2015, leaders emphasized the GCF’s role as a key institution for global climate finance.’¹³

The clarification of the issue about the link is of vital importance, as there needs to be a benchmark against which the performance of the GCF will be assessed. Furthermore, attention has to be paid to the wording – the ‘mobilization’ of resources is not synonymous with ‘capitalization’ of the GCF, as the PA is about the joint action of public, private and institutional entities. Rather, the understanding should be that the GCF’s investment activities and the associated investments from other entities are supposed to reach \$100 billion per year. This is the approach to benchmarking adopted in this paper.

Returning to chronology, 2016 was the first full year of operations and the Fund managed to create a portfolio of 35 projects, worth over \$1.5 billion. 2017 saw the first 19 projects under implementation, worth \$633 million in GCF resources.¹⁴ In 2018 the GCF further progressed, approving 42 new projects with a total of \$8.056 billion mobilized; the projects under implementation increased to 39, worth \$1.6 billion in GCF resources.¹⁵ As of June 2019 the portfolio features 102 projects that benefit 276 million people; the anticipated avoided CO₂ equivalent is 1.5 billion tons. Both the geographical distribution of the projects and the beneficiary priority countries match the GCF’s profile in assisting developing countries:¹⁶

- **Geographical distribution of projects**: 6 in Eastern Europe, 22 in Latin America & Caribbean, 40 in Asia Pacific, 43 in Africa

¹¹ <https://europeansting.com/2015/12/14/cop21-paris-the-final-agreement-adopted-full-text/>.

¹² <https://www.cnsnews.com/news/article/patrick-goodenough/un-chief-wants-action-100-billion-climate-fund>.

¹³ <https://www.greenclimate.fund/how-we-work/resource-mobilization>.

¹⁴ <https://www.greenclimate.fund/who-we-are/about-the-fund>.

¹⁵ https://www.greenclimate.fund/documents/20182/38417/Green_Climate_Fund_invests_USD_1_billion_for_developing_country_climate_action_launches_first_replenishment.pdf/e4f9bb5a-7843-d1ae-7183-53c39948af3c.

¹⁶ <https://www.greenclimate.fund/what-we-do/portfolio-dashboard>.

- **Projects in priority countries:** 22 in Small Island Developing States (SIDS), 38 in Least Developed Countries (LDCs), 43 in African States

Medium-sized projects (\$50-\$250 million range) have the largest share – 42%, followed by small-sized projects (\$10-\$50 million range) – 28%, large-scale projects (over \$250 million) with 17% share, and micro projects (under \$10 million) with 13% share. 44% of the projects are in the mitigation field, 23% in adaptation and 33% feature both mitigation and adaptation.¹⁷ Very encouraging is the fact that 41% of the funding comes from the private sector – usually environmental initiatives are financed mostly by governments. This large share may be up to the realization than far from being just another expenditure without tangible benefits for the company's balance sheet, eco-friendly investments can substantially improve business performance – through favorable public perceptions (due to tangible social benefits) and/or utilization of technologies that reduce resource consumption, waste and pollution.

The GCF's project financing is distributed largely in two forms – grants and loans, each with a 44% share; for the remainder, 8% is equity, whereas results-based payments and guarantees have a 2% share each. By access modality 74% of the projects are international, 15% are national and 11% are regional.

The grand total from the GCF's operations is \$2 billion distributed for projects under implementation, \$5 billion allocated to projects as approved by the GCF board and \$17.6 billion total value of approved projects, when both the finance from the Fund and co-financing from other sources is considered.¹⁸ Therefore we can accept that the \$17.6 billion is the total of mobilized resources. However, *there is a major shortcoming in the presented data which precludes a viable assessment of GCF's operations: we are not told what is the amount of mobilized resources that corresponds with the \$2 billion for projects under implementation.* Without this data, the researcher's is compelled to construct an estimate that only partially corresponds with the period under consideration – 2015 (when the Fund became operational) to mid-2019. The real impact of GCF's climate financing during the period is embodied only in projects under implementation, as approved projects will begin to be implemented sometime in the future and their financing has not begun. Going even further, whether it is mitigation or adaptation or a mix of both, the real-life effects of a project can be counted in only after it has been completed. So far, there isn't any data on completed projects

¹⁷ From the official Portfolio Dashboard.

¹⁸ From the official Portfolio Dashboard.

and therefore it is unclear, for instance, when the aforementioned avoidance of 1.5 billion tons of CO₂ equivalent will materialize.

But even assuming the most optimistic of scenarios, during its first four years of operations the GCF managed to mobilize \$4.4 billion per year which is very far from the projected \$100 billion per year. The key point of interest regarding the GCF's operations is the fact that finance availability is not a problem, as after four years the Fund has spent only \$2 billion out of the \$10.3 billion capital, or in other words there is no project capacity to distribute funds to the tune of tens of billions of dollars per year that would result in the mobilization of \$100 billion annually. Perhaps to the surprise of planners, *at the current stage of GCF's development its massive capitalization looks unnecessary.*

THE CHALLENGES TO GCF'S SCOPE OF OPERATIONS

The GCF has been launched with high expectations, but the slow progress suggests that some main challenges have been underestimated. They can be divided into three main groups: (1) education levels in developing countries, (2) special interests in developing countries and (3) political issues around GCF's finance policies.

Education Levels

Although developing countries are grouped together due to similarities in a number of social and economic criteria, this shouldn't conceal the fact that there are substantial differences between them. For instance, GDP per capita in Brazil and Columbia is much higher than GDP per capita in Chad and Bangladesh. The following table, compiled with data from the United Nations Development Program (UNDP), is an illustration of the differences in the mean years of schooling in selected developing countries from Africa, Asia, Latin America and the Pacific. Also a comparison with Switzerland and Japan can be drawn:

TABLE 2
Mean years of schooling (MYS), as of 2017

Country	MYS	Country	MYS
Bangladesh	5.8	Kenya	6.5
Brazil	7.8	Lao PDR	5.2
Burkina Faso	1.5	Mozambique	3.5
Chad	2.3	Papua New Guinea	4.6
Columbia	8.3	Peru	9.2
Ivory Coast	5.2	Rwanda	4.1
Indonesia	8.0	Switzerland	13.4
Japan	12.8	Vanuatu	6.8

Source: UNDP, <http://hdr.undp.org/en/data>.

The GCF's climate financing has the potential to bring significant benefits to developing countries, but far from being a simple job, the access to GCF's capital requires several interlinked layers of competencies:

1. Administrative capacity and scientific/technical expertise from the national/regional government – the capabilities (a) to identify the potential for climate-related investment, (b) to formulate and implement strategies and corresponding projects, and (c) to communicate and work with international institutions, incl. compliance with their regulations and procedures.

2. Managerial capabilities at the project-specific level – both subject matter and geography

3. Technical capabilities at the project-specific level, with geographical distribution again having a role – for instance, personnel for renewable energy facilities: one gigawatt of wind power supports approximately 127 annual operation jobs.¹⁹ This is an estimate for Louisiana, USA, but considering US education and training of personnel, it is unlikely that wind farms in the developing world could operate with much lower staff levels.

As all of these competency layers are directly related to education, when one looks at the mean years of schooling in the developing world – and particularly the (relatively) low values in large swaths of Africa, South Asia and South East Asia, the challenge of finding projects in the developing world worth \$100 billion a year becomes apparent. Furthermore, the differences in education levels between developing countries will make it difficult for the GCF (over the long run, when hopefully the scale of operations is several times larger) to balance the portfolio between regions, or at least this could be done at the expense of fund distribution speed. Theoretically, the Fund can focus only on countries with higher levels of education and skills in order to accelerate high value/high impact project implementation, but this would attract accusations of bias and would run counter to GCF's commitment to helping the target groups of LDCs and SIDS. ***This commitment is admirable and deserves all kinds of political, technical and financial support*** – the GCF is fully focused on it, but it is unclear what is the project potential of countries like South Sudan, Niger, Mali, Nepal and Afghanistan, with respective literacy rates of 27%, 28.7%, 33.4%, 57.4% and 28.1%^{20,21} (vs. 99% literacy in most developed countries). Opportunities do exist there, however it remains to be seen how long it would take for the GCF to take advantage of them.

¹⁹ <https://www.windpowerengineering.com/projects/many-jobs-wind-farms-create/>.

²⁰ <https://ourworldindata.org/global-rise-of-education>.

²¹ <http://hdr.undp.org/en/data>.

Special Interests

The assumption that all authorities in the developing world are embracing environmental initiatives with open arms is debatable, as the following example from Liberia will illustrate. The story is told by Alfred Brownell, an environmental activist who had to flee the country because of threats to his life.²²

Liberia's Upper Guinea Forest is the largest intact forest in West Africa. The ecosystem is home to 2000 flowering plant species, 1000 insect species, 240 varieties of trees and 150 mammal species, among them the endangered pigmy hippopotamus. The forest provides livelihoods and ecosystem services, such as food and water, to the local inhabitants. But this area is also suitable for palm oil production, so in 2009 two companies – Sime Darby and Golden Veroleum – were awarded land deals for palm oil, encompassing almost one million acres. Notwithstanding the fact that both companies are members of the Roundtable on Sustainable Palm Oil (RSPO) – an international network of companies, investors and NGOs that certifies producers – they encroached Liberia's forests without consulting local communities. In the months following the companies' entry, Green Advocates (a local environmental protection group) received complaints from the affected communities for human rights violations and environmental abuses. After partnering with other NGOs, Green Advocates approached the RSPO's grievance system and was successful in obtaining stop orders for Sime Darby in 2011, and for Golden Veroleum in 2012. Liberia government's reaction was quite unexpected: community members were criminalized, the police harassed, arrested and imprisoned several leaders and activists, one of whom died in prison. Some community members had to flee into the forest for over a year, while their villages were transformed into ghost towns with police units standing watch.

In 2016 the government issued warrants for Green Advocates staff's arrests and the office was forced to shut down from October 2016 to March 2017. It reopened only after an international campaign by other human rights and environmental organizations and a lawsuit filed by Green Advocates' lawyers. Ultimately, the fact-finding mission of RSPO was successful and the stop orders were upheld, but the damage has already been done – to an unacceptable human and environmental cost.

This story from Liberia is an important reminder that the pro-environment efforts of certain population groups can be severely limited, if not altogether blocked by corporate interests and corrupted authorities. *In our context, there may be project potential for the*

²² <https://www.wri.org/blog/2019/05/goldman-prize-winner-alfred-brownell-stopped-palm-oil-companies-destroying-liberian>.

GCF, but the application form is never filled out, as government officials prefer not to disrupt the illegal cash flow. Looking at the rankings in the *Corruption Perceptions Index 2018*, compiled by Transparency International²³, Liberia ranks 120th with a score of 32 and there are 60 countries with a lower score (supposedly more corrupt) and 15 countries with roughly similar score (up to 35, within a 10% difference) – all of them developing. So the magnitude of this type of hidden impediment to GCF’s scope of operations should not be overlooked. Another bleak statistic further underscores the seriousness of the issue, as according to Global Witness (a human rights and environmental protection group) 2017 was the deadliest year on record for land and environmental defenders²⁴ – 207 of them were killed. Global Witness tracks 53 of the killings to armed forces and police.²⁵

GCF’s financing policies: the political issues

Though an entity with quite a noble goal, the GCF has not been bypassed by the issues usually surrounding big money, incl. the political influences in distributing them. For instance, the GCF has approved Deutsche Bank – one of the world’s leading coal funders, among its accredited entities (financial partners). In the words of Regine Richter, from the German-based Urgewald campaign group, ‘I have difficulty in understanding why this private bank, being so big in fossil fuels, should be a partner to help tackling climate change. It’s one of the biggest coal financing banks. To me it seems a complete contradiction.’ Civil society observers in Songdo (the GCF Headquarters, South Korea) were excluded from the process of accreditation and this decision by the GCF raised concerns about transparency.²⁶ Consequently, after the approval of Deutsche Bank over 20 campaign groups issued a joint statement, declaring that they were ‘tremendously discouraged and disappointed’, adding that the GCF was at ‘real risk of losing credibility’.²⁷ The Fund justified the approval of Deutsche Bank with compliance to the technical requirements, but this has contributed little to dissuading the controversies.

Another aspect from the Fund’s financing policies that attracted criticism is the fact that the GCF hasn’t provided guarantees that coal power would be excluded from the funding. This became a real concern, based on the finding of Associated Press that Japan has been distributing ‘climate finance’ for coal plants in Bangladesh and India (\$630 million), and

²³ <https://www.transparency.org/cpi2018>.

²⁴ As of June 2019, data for 2018 is still unavailable.

²⁵ <https://www.globalwitness.org/en/campaigns/environmental-activists/at-what-cost/>.

²⁶ <https://www.climatechangenews.com/2015/07/07/top-coal-funder-deutsche-bank-to-become-green-climate-fund-partner/>.

²⁷ <https://www.climatechangenews.com/2015/07/09/green-climate-fund-partners-with-deutsche-bank-to-green-fury/>.

Indonesia (\$1 billion).^{28,29} And as the UN lacks a definition of what qualifies as ‘climate finance’³⁰, there has been mounting pressure on the GCF to ban coal and other fossil fuel funding, including a blacklist of coal-funding agencies.^{31,32} So far, this has not happened.

Perhaps due to a deficiency in quality projects, the GCF has funded activities that have no relation neither to combating climate change, nor to a meaningful long-term adaptation. The first example here is the \$50 million funding for the Ethiopian project ‘Responding to the Increasing Risk of Drought: Building Gender-Responsive Resilience of the Most Vulnerable Communities’. The UN’s statement that more than 50% of the beneficiaries will be women hardly exonerates climate finance spending for a gender-justice agenda. Furthermore, satellite data shows that Ethiopia is actually greening (instead of suffering more from droughts): more than 30% increase of foliage throughout much of the country since 1982. Those are the reasons why CFACT.org claims that the project is a waste of GCF’s and US taxpayers’ dollars.³³ The second example is a \$50 million in loans and grants for the rehabilitation of a dam in Tajikistan, for which experts have warned that its hydropower is vulnerable to the retreat of snow melt that feeds it.³⁴

At the current stage of the Fund’s development the political and finance distribution issues of the type just mentioned are unlikely to have a major influence on its operations. However, if the Fund manages to massively upscale its climate finance distribution then the question of finding significant amounts of additional capital will come to the forefront and it is extremely unlikely that public and/or private investors will be enthusiastic to support an entity whose policies and projects are not fully aligned with its mission.

GCF COMPARED TO GLOBAL INVESTMENTS IN RENEWABLE ENERGY

We already saw that under the most optimistic assumption, the GCF has managed to mobilize \$4.4 billion per year during the four years since becoming operational. As the Fund is an entity with global ambitions, it would be fitting to make a comparison with another field that contributes to reductions of CO₂ emissions worldwide. The field in question is renewable

²⁸ <https://www.climatechangenews.com/2015/03/27/no-ban-on-coal-finance-as-green-climate-fund-eyes-first-projects/>.

²⁹ <https://apnews.com/19006063900b4acdb2412f6b62a40e3e>.

³⁰ <https://www.climatechangenews.com/2014/12/07/lost-in-lima-why-climate-finance-figures-cant-be-trusted/>.

³¹ <https://www.climatechangenews.com/2016/10/07/green-climate-fund-urged-to-blacklist-coal-funding-agencies/>.

³² <https://www.climatechangenews.com/2015/03/27/no-ban-on-coal-finance-as-green-climate-fund-eyes-first-projects/>.

³³ <https://www.cfact.org/2018/09/08/uns-green-climate-fund-is-wasting-u-s-tax-dollars/>.

³⁴ <https://www.nytimes.com/2017/11/16/climate/green-climate-fund.html>.

energy and the data for the comparison is provided by the report *Global Trends in Renewable Energy Investment 2018*, published by UN Environment, The Frankfurt School – UNEP Collaborating Centre and Bloomberg New Energy Finance.³⁵

Global investments in renewable energy reached \$279.8 billion in 2017, taking cumulative investment since 2010 to \$2.2 trillion, and to \$2.9 trillion since 2004. Investors in the field have not only scaled up investments in recent years, but due to falling costs – in 2017 the benchmark levelized cost of electricity for a utility-scale photovoltaic project dropped to \$86 per megawatt-hour, down 15% on a year earlier and 72% since 2009 – capacity is increasing faster than invested funds. Overall, investments in renewable energy in 2017 increased by 2% compared to 2016, but the commissioned power reached 157 gigawatts – or a nearly 10% increase over 2016’s 143 gigawatts. The proportion of the world’s electricity generated by solar, wind, geothermal, biomass and waste-to-energy, marine and small hydro rose from 11% in 2016 to 12.1% in 2017. This corresponds to approximately 1.8 billion tons of CO₂ being avoided. *Even this short overview is sufficient to illustrate the GCF’s negligible (current) contribution to combating climate change.*

Developing countries, the GCF’s priority group, committed \$177 billion to renewables in 2017 – an increase of 20%, whereas developed countries experienced a drop of 19% (compared to 2016) to \$103 billion. The leading location for renewables was China, which accounted for \$126.6 billion – 45% of the global total. However, the leading position of China is not due to a sudden change in private investors’ sentiment, but to the fact that since 2014 the country has ‘declared war’ on pollution and the government has stepped-up efforts to promote renewable energy.^{36,37} Furthermore, notwithstanding China’s commendable efforts to accelerate the use of renewables, the country still relies heavily on coal for electricity generation and regardless of the billions invested in clean energy, in 2018 China added (newly operating) 34 gigawatts coal capacity – while retiring 6.7 gigawatts.^{38,39}

Throughout the developing world the limitation of coal use remains a challenge, since as late as 2018 – when renewable energy costs are much lower compared to 10 or even 5 years ago, there are a number of developing countries that continue to add more coal power that they retire. For instance (the list can be expanded), Vietnam, The Philippines, South

³⁵ <http://www.greengrowthknowledge.org/resource/global-trends-renewable-energy-investment-report-2018>.

³⁶ <https://www.reuters.com/article/us-china-parliament-pollution-idUSBREA2405W20140305>.

³⁷ <https://www.renewableenergyworld.com/articles/2016/04/china-s-string-of-new-policies-addressing-renewable-energy-curtailment-an-update.html>.

³⁸ <https://endcoal.org/global-coal-plant-tracker/>.

³⁹ https://docs.google.com/spreadsheets/d/1crIH1gMBWUDi3kjXDgHY_FQCgVHfiPGtBwFT1gejxIk/edit#gid=1260870013.

Africa and Taiwan (Chinese Taipei) did not retire any coal capacity in 2018, but added 1.8 gigawatts, 0.57 gigawatts, 0.79 gigawatts and 1.6 gigawatts respectively.⁴⁰

I would like to end this section with the observation that developing countries nowadays are mobilizing annually 77% more resources than the GCF's objective – namely, the \$100 billion dollars a year – but even this higher amount does not provide the basis to credibly forecast that by 2030 the use of coal burning for electricity would be drastically reduced. Ultimately, even the impressive global total of \$279.3 billion was insufficient to turn the tide of coal – the most polluting fossil fuel, as in 2018 the world retired 30.9 gigawatts, but added 50.3 gigawatts.

CONCLUSION

During the four years since becoming operational the GCF has delivered results that deviate substantially from the initial expectations. Perhaps the most concerning fact is that the GCF has committed only 20% of its capital for projects under implementation. So if the current pace of operations continues, the Fund will have an extremely limited contribution towards the achievement of the goals of the Paris Agreement and Agenda 2030's *Goal 13: Take urgent action to combat climate change and its impacts. At the same time, it is supposed to be the main tool.* Today, the prospect of GCF mobilizing \$100 billion a year in the short or mid-term resembles a mirage. It is clear that the Fund is facing a number of challenges that have to be addressed in order to massively speed up operations. This is vital, because a properly functioning GCF can bring unique benefits by channeling investments in developing countries or regions within the countries where the profit stimulus for private investors is lacking.

As it is unrealistic to expect that in the age of fast communications and mobile capital the Fund will be able to outsmart private companies in identifying profitable opportunities for climate financing in developing countries, *in my opinion the strategy has to be finetuned towards projects with significant mitigation potential that are likely to have low or even negative profitability.* Apart from competition by the private sector in the renewable energy field, the logic behind this suggestion is based on the following:

- Significant mitigation potential is available in forest preservation and restoration, as well as in sustainable agriculture – two fields where the private interest (unlike profits from renewable energy) is biased towards profits at the expense of ecosystems. For

⁴⁰ https://docs.google.com/spreadsheets/d/1crIH1gMBWUDi3kjXDgHY_FOCgVHfiPGtBwFT1gejxIk/edit#gid=1260870013 – compiled with information from Global Energy Monitor.

instance, the clearing of forests for palm oil or soybeans production is happening in virtually all developing regions – South America, Africa and Asia.^{41,42} As commercial farming employs people and provides revenue for the government – sometimes featuring opportunities for corruption, the temptations for authorities to allow increases of cultivated land – either legally or by turning a blind eye – are considerable. Therefore the GCF can have a major impact on the legal side by providing financing for ecosystem preservation or restoration, with the two-fold benefit of local employment (forest guards, tree planters, etc.) and revenue for the government.

- We already mentioned that education levels in many developing countries are relatively low, so GCF project profiles have to correspond to available knowledge and skills. It so happens that ecosystem preservation and sustainable agriculture are areas of mitigation that require low or no education at all, or at the very least the projects can be successfully completed with limited training of the locals involved. In some cases the solution is as straightforward as providing continuous financial stimulus to the government based on results – such as discontinuation of farm licensing in forest areas and/or maintaining, or restoring a designated forest area.

Currently, the GCF has approved 10 projects corresponding to the UN's REDD+ mechanism, which supports developing countries in reducing their emissions from deforestation and forest degradation, but the total committed amount of \$314 million will hardly make a substantial impact globally. Furthermore, the unattractiveness of those type of projects for private investors is substantiated by the fact that nowadays 90% of REDD+ finance comes from the public sector.⁴³ Notwithstanding the massive benefit to society, due to the lack of financial returns from investments in forest preservation and/or restoration, it is unimaginable that private investors will embrace this field the way they have embraced renewable energy. Therefore, the long term assumption should be that governments, international institutions and NGOs will lead the way in preserving or rebuilding the Earth's forests. ***GCF's role here can be transformational and its financing can make a substantial global impact, as according to Global Forest Watch tropical deforestation is responsible for around 8% of global CO₂ emissions – if deforestation was a country, it would be the world's***

⁴¹ <http://theconversation.com/brazils-thriving-soy-industry-threatens-its-forests-and-global-climate-targets-56973>.

⁴² <https://www.rainforest-rescue.org/topics/palm-oil#start>.

⁴³ <https://www.greenclimate.fund/stories/forests>.

third biggest emitter.⁴⁴ In the words of Frances Seymour, a forestry expert from the World Resources Institute, ‘stopping deforestation and allowing damaged forests to grow back would be equivalent to reducing current global emissions from all sources by up to 30 percent’. She shays that protecting forests is the most cost-effective strategy to achieve the Paris Agreement goal of limiting global warming.⁴⁵

Over the long run, if the GCF manages to establish itself as an institution with a leading role in CO₂ emissions reduction, then there is every reason to believe that private entities will be more interested in donating on a continuous basis. Today many of the biggest corporations are running their own environmental sustainability and/or social responsibility programmes, and therefore a GCF with a proven track record can be in their range.

⁴⁴ <https://psmag.com/environment/tropical-deforestation-leads-to-more-carbon-emissions>.

⁴⁵ <https://www.eco-business.com/news/forestsroot-of-climate-problem-or-solution/>.

Introducing Payment for Ecosystem Services in Albania: The Case of Bovilla Watershed

Elona Pojani¹

ABSTRACT: This paper investigates the potential of introducing a Payment for Ecosystem Services mechanism as a potential fee for achieving environmental protection in Albania. A case study research has been carried out, by discussing the implementation of PES in one particular study area, i.e. Bovilla watershed. Considering Bovilla as a valid candidate for PES, is based on several factors: the characteristics of the watershed, the direct relationship between agricultural practices and water quality and quantity, clear identifications of ecosystem services providers and beneficiaries, and the willingness of the third parties to facilitate a PES implementation. This paper has identified the cost and benefits of the scheme in the study area and gives an overview of the design of the scheme in a scenario where the buyer is the Water Supply and Sanitation Company in Albania and sellers are farmers and landowners situated in Bovilla watershed.

Keywords: payment for ecosystem services, environmental financing, environmental protection, ecosystem services.

JEL: Q57, Q58.

INTRODUCTION

The environment provides humanity with a wide range of ecosystem services. Many instruments have been developed with the aim to protect the environment, from traditional command and control measures to the implementation of market based instruments, the most known of which are environmental taxes. However, today, the development and implementation of innovative environmental financing means is at the core of international environmental policies.

The aim of this paper is to investigate the potential of introducing a Payment for Ecosystem Services (PES) as financing mechanism for environmental protection in Albania. The incomes from this mechanism can be used conservation purposes, contributing to the creation of a sustainable financing mechanism.

This paper is organized as follows. The first part of the paper offers a review of the instruments used for environmental protection, focusing on the rationality and design of PES mechanism. The remaining part of the paper is dedicated to the investigation of the potential of introducing PES schemes in Albania. For achieving this purpose, the study has used one specific watershed area, and buyer and sellers of a potential PES agreement are analyzed. The paper concludes with a first overview of what a PES scheme would look like and who it would involve in the presumed study area.

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LITERATURE REVIEW - PES AS AN INSTRUMENT FOR ENVIRONMENTAL PROTECTION

Recent years have witnessed significant raise in awareness in relation to ecosystem services and environmental protection. This has led to the improvement of the ways the environmental issues are treated and reflected in decision making. The traditional means for environmental protection have been command and control measures. These measures aim to put in place the environmental quality objectives. Despite their objective and widespread use, today a strong emphasis is rather posed on the implementation of market based instruments, the most known of which are environmental taxes. The use of environmental taxes is thought to create incentives for reducing the level of pollution by pollutants (Bluffstone, 2003). However, the market imperfections and criticism toward environmental taxes, together with the aim of achieving sustainability goals (Xuan To et al, 2013) has led to the development and implementation of innovative environmental financing means, such as tradable population permits and payment for ecosystem services (PES) mechanism (Redford and Adams, 2009).

A widely used definition of PES is "...a voluntary transaction where a well-defined ecosystem service (or a land-use likely to secure that services) is 'bought' by a (minimum of one) ecosystem service buyer from a (minimum of one) ecosystem service provider; if and only if the ecosystem service provider secures ecosystem service provision (conditionality)" (Wunder, 2005). The basic idea behind PES is that those who provide ecosystem services should be paid for doing so. In practice, PES often involves a series of payments to providers of ecosystem services, with the expectation that they would provide the ecosystem service in question over-and-above what would otherwise be provided in the absence of payment. PES therefore provides an opportunity to put a price on previously un-priced ecosystem services like climate regulation, water quality regulation and the provision of habitat for wildlife and, in doing so, brings them into the wider economy. Payments are made by the beneficiaries of the services in question, for example, individuals, communities, businesses or government acting on behalf of various parties. The novelty of PES arises from its focus on the '*beneficiary pays principle*', as opposed to the '*polluter pays principle*' used when arguing the implementation of other market-based mechanisms, like taxes or tradable pollution permits (DEFRA, 2013 and Gómez-Baggethun et al., 2009). PES policies may be funded by taxes, by non-governmental organization (NGO), by direct fees on service consumers, or through other mechanisms (Jack et al, 2008). Despite this variation, PES policies share a common element: as with other incentive-based approaches, PES policies work by changing incentives rather than by making explicit rules or directives.

There are several examples of development and implementation of PES scheme, both in the developed and developing countries. According to the OECD, there were already more than 300 PES or PES-like programmes in place around the world by 2010 at national, regional and local levels (DEFRA, 2013). One of the most successful PES scheme is situated in Costa Rica, known as the country-wide program called Pago por Servicios Ambientales (PSA), which was implemented in 1997, and aimed to reverse the severe deforestation rates existing at that time (Porrás et al, 2008 and Porrás et al, 2013). Mexican PES program for hydrological services began in 2003, where payments are made to individuals and communities as incentives to preserve existing forests. Although the design of Mexico's PES program was strongly influenced by the political process, the program is deemed to have been successful on many fronts (Alix-García et al, 2005). A study reviewing 40 cases of implementation of PES schemes in Latin America concluded that the type of ecosystem service being traded, the scale of the scheme, transaction types and type of actors involved are those elements which contributes to the success of a PES scheme. The study concluded that regional and local schemes, involving mainly private actors using mostly in-kind contributions and securing continued provisioning of the environmental service involved are the most successful (Grima et al, 2015). Another very successful example of PES implementation is Perrier Vittel case in France, a company which has entered into a long-term environment conservation agreement and sustainable farming practices with farmers and forest owners in the upstream and surrounding natural resources in the Rhin-Meuse basin, from which Perrier Vittel gets the water. The company pays these owners for reforestation of certain areas and for undertaking less harmful environmental practices (Perrot-Maître and Davis, 2001 and Perrot-Maître, 2006). In fact one of the factors to the success rate of PES schemes is that they have had strong support from business sector (Miles, 2005).

There is though controversy about the use of PES. For example, some PES projects in Bolivia met with opposition because some saw them as limiting future economic development and as a privatization of nature (Jack et al, 2008). Political interventions affect also PES implementation. A review of three PES schemes in Vietnam, concluded that insecure land tenure, high transaction costs and high opportunity costs can undermine the long-term benefits of PES programmes for local households and, hence, potentially threatening their livelihood viability (Xuan To et al, 2012).

POTENTIAL FOR PES IMPLEMENTATION IN ALBANIA

Prerequisites for implementing a PES scheme

Best practices from around the world introduced in the first part of this paper have provided many success stories in the development of PES in developing countries. One of the reasons for that is precisely the voluntary nature of the contract and the fewer chances for corruption using this scheme. The main drivers to the successful introduction of a PES scheme, based on its principles, are: identification of the stakeholders involved in the scheme: the suppliers of the environmental services, the buyers or users of these services, and the various intermediaries and facilitators that bring them together; careful development of the market design: the mechanisms for linking supply and demand, the terms of payment and the institutional and legislative framework; careful evaluation of economic, social and environmental costs and benefits of the scheme.

In Albania, land-management practices and actions for environmental protection have been provided mainly through regulation. Anyhow, law enforcement has been very problematic especially in the field of environmental protection. In addition, very few market based instruments are introduced. Currently environmental policy include environmental taxes, which are composed of indirect taxes (product taxes) for vehicles, fuel and plastic bags. Anyhow, there is much skepticism in relation to the taxation system, which is perceived as inefficient and in many cases corrupted. On the other hand, the business environment is an important factor to consider when discussing any policy change that would involve the introduction of new market based instruments. The experience of the last 30 years has shown how short-term profit targets have dominated over long-term business development strategies in Albania. This culture of doing business significantly affects the relationship between businesses and the environment, and does not allow for a comprehensive estimate of the long-term benefits to the protection of natural resources. A shift in mentality is necessary for the introduction of new, innovative policies.

Considering these insights, the next part of this paper will discuss the introduction of a PES scheme in a particular study area in Albania, i.e. Bovilla Watershed. His study area has been chosen given its particular features which make it a valid PES candidate, including the characteristics of the watershed, the direct relationship between agricultural practices and water quality and quantity, easy identification of ecosystem services providers and beneficiaries, and the willingness of the third parties to facilitate a PES implementation. Besides the identification of buyers and sellers, the role of intermediaries is especially

important to be discussed in this case. Whoever will manage the terms of the contract between ecosystem services provider and beneficiaries has to act as a bridge between the parties in order for the to understand the long-term nature of the contract and the real cost and benefit for both parts. Therefore, a cost benefit analysis for both the provider and user of ecosystem services involved in the scheme will support such arguments. More on these issues will be discussed in the next session.

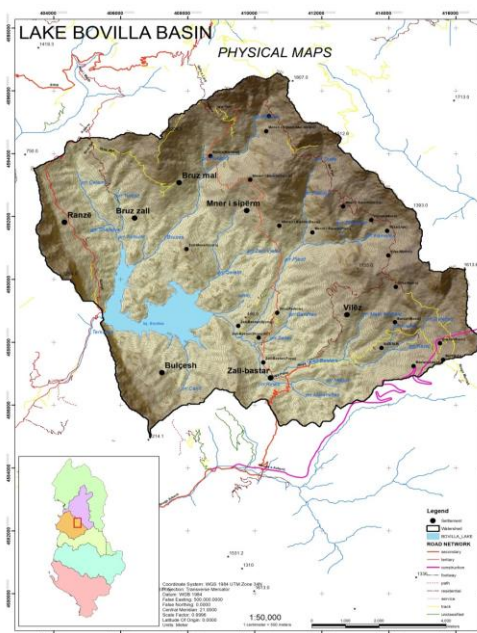
Introducing Bovilla watershed as a potential study area for implementation of PES

A watershed is defined as any surface area from which runoff resulting from rainfall is collected and drained through a common point. It is synonymous with a drainage basin or catchment area. A watershed may be only a few hectares as in small ponds or hundreds of square kilometers as in rivers (Wani et al, 2009). Some of the main ecosystem services provided by a watershed include: improved water quality, carbon storage opportunities; increased resilience in the face of climate change threats, reduced risk for invasive species colonization (EPA, 2012).

The Bovilla watershed (Figure 1) extends in northeast of Tirana and it is part of the Dajti National Park. The whole territory is well known for the freshwater springs, often with oligo-mineral waters, with scarce content of calcium and magnesium salts. Most of them are collected in Bovilla Reservoir. The Bovilla Reservoir is one of the largest hydro-technical constructions in Albania, built to deliver drinking water to the capital Tirana. The reservoir is situated 15 km far away from Tirana city with a maximum water filling capacity of 80 Million cubic meter. The potable water volume from Bovilla reservoir is estimated about 55 mln m³ per year and the rest might be used for irrigation. The total area of Bovilla reservoir is 4.6 km² and the maximal depth is 53 m.

The human impact in the whole watershed is massive and evident, and is mainly located in northern and eastern slopes. This has caused strong erosion and a high concentration of suspended solids in water, feeding the Bovilla Reservoir, leading occasionally to more than 25 mg/L TSS, the EU guide value for surface waters used for drinking. Erosion in Bovilla watershed causes the following problems: increased frequency and magnitude of flooding; increased sediment deposits and occurrence of saline soils in the lower reaches of the river basin; degradation of water quality; decrease of storage capacity; decrease of water supply for population as result of turbidity raising (Diava Consulting, 2017; Muça, 2018, Baloshi et al, 2018, Miho et al, 2009).

FIGURE 1
Location and physical map of the Bovilla watershed, Source: Diava Consulting (2017)



Under these circumstances, experts call for immediate measures to protect soil and improve water quality (Baloshi et al, 2018). Different options for intervention in the area are being considered, either by increasing government control or by introducing market-based instruments, like Payment for Environmental Services schemes. This discussion will be in the focus of the next session.

A PES scheme for Bovilla: Buyers, sellers and cost-benefit analysis

Bovilla reservoir main purpose is the provision of drinking water to the population. The company that is in charge of water production and water distribution in Tirana is the Water Supply and Sanitation Company Sha. Therefore, the beneficiaries of ecosystem services of Bovilla are easily identifiable. The Water Supply and Sanitation Company activity and profit depends on the water resources of Bovilla watershed. The company is interested both in the water quality and water quantity. If something would jeopardize either, infrastructural investments might be needed for the activity to continue. Indeed, a reduction in water quality may result in investments needed of filtration and water treatment. Other indirect beneficiaries include the the Government, which is interested in providing goods and services to the population, and who is in charge of public health of the population and Tirana population and business sector, which water supply depend on the availability and quality of Bovilla resources.

Different hydrological studies of Bovilla (Diava Consulting, 2017; Muça, 2018; Baloshi et al, 2018; Mersinllari et al, 2009; Miho et al, 2009), have identified the main risks

of Bovilla watershed and possible interventions and changes in agricultural practices which could improve the erosion problem in the area. This would involve farmers and landowner who ultimately in a potential PES scheme would serve as the providers of ecosystem services.

Decision making involves the process of identifying cost and benefits of a new policy. Therefore, discussing the implementation of PES would require a separate Cost Benefit Analysis (CBA) for both buyers and sellers of ecosystem services. Tables 1 and 2 show the different cost and benefits associated with the potential implementation of a PES scheme in the study area.

TABLE 1
Cost and Benefits of Farmers and Landowners located in Bovilla watershed as sellers in a PES scheme

Cost of PES scheme	Benefits from a PES scheme
Foregone agricultural production from the change in agricultural practices (opportunity costs)	PES payments received from the scheme
Cost of initiating a new type of agricultural production which ensures sustainability of the watershed services including labor and material costs	Increased property values
Transaction costs	Reduction of poverty and better living standards (non-monetary benefits)
	Increased tourism opportunities (more employment opportunities)

Source: The Author.

TABLE 2
Cost and Benefits of The Water Supply and Sanitation Company as buyer in a PES scheme

Cost of PES scheme	Benefits from a PES scheme
PES payments paid for the scheme	Reduced drinking water treatment and infrastructure costs
Transaction costs	Better image and improvement of good name of the company(non-monetary benefit)

Source: The Author.

Once the environmental services, the buyers and sellers have been identified, the design phase would further include the negotiation phase between the stakeholders and agreement on the final terms of the contract. This would require that both the buyer and the seller understand the benefits associated with the involvement in a PES scheme and voluntarily agree to take part in it. The buyers would have to assess its financial position and potential to cover the PES payments. They should be included in the profit and loss statement of the buyer. New sources of financing might be required, leading to the design of new

financial schemes. An assessment of the risk associated with the implementation of PES is needed to foresee different scenarios and possible outcomes. Monitoring and reviews of PES activities should be performed periodically and that would be the role of the intermediary. Finally, new opportunities might arise from the PES scheme which should be identified in the monitoring and review phase.

CONCLUDING REMARKS

Options for dealing with externalities - whether positive or negative - are numerous, and often depend on the type of externality. The key is to identify the tool or policy alternatives that will lead the market towards more effective allocation of resources. In Albania, the main instruments used for financing are national taxes, which generate revenue for the achievement of overall environmental objectives. Considering PES as a mechanism for environmental protection is a very important step introducing new, innovative means in the environmental polity of Albania. Bovilla watershed represents a very good opportunity to discuss the implementation of PES mechanism in Albania. Several factors made Bovilla watershed a valid candidate for PES, including: the characteristics of the watershed, the direct relationship between agricultural practices and water quality and quantity, clear identifications of ecosystem services providers and beneficiaries, and the willingness of the third parties to facilitate a PES implementation. This paper identified possible actors in a potential PES scheme in Bovilla and offered a preliminary PES design. However, many limitations were identified, including data insufficiency. In order to complete PES design in Bovilla Watershed, the following steps are to be taken:

- Consultation with landowners and local communities living in the area about their willingness to take part in the scheme;
- Assessment of the willingness to take part in the PES scheme of the Water Supply Company, including its financial capability;
- Analysis of change in agricultural practices needed for achieving ecosystem services promised in a potential PES scheme, including the assessment of the extent of ecosystem services created with the change of agricultural practices;
- Consultation and finalization on the design of the PES scheme, by defining parties and intermediaries in the transaction;
- Discussion on the possible long term financing mechanisms of the PES scheme, including budgetary reallocations, increase of water fees, donor and international organizations involvement, or alternative funding.

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Reuse Points as Entities on Municipal Waste Market – Through the Prism of Re-value of Municipal Waste Concept

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ABSTRACT: Municipal waste is a tool for building a pro-social image strategy by creating the conditions of social well-being in a strategic time perspective, especially thanks to the applied processes of the biological-mechanical processing and the closed-circuit economy. But, in the new approach, municipal waste is connected with the notion of “re-use” or re-consumption. It can be stated, that waste value is built in a system of relations between the market entities, the secondary market, business entities, and the involvement of government and non-profit organizations. Therefore, the aim of the article is to demonstrate the value of municipal waste, built through involvement of many entities, for example reuse points. Especially, the strategies of building re-value by trade, on domestic and global scale is the main area of interest of the author. In the article, conceptual and qualitative research methods of empirical research (case study), mainly were used. The results of the research show that the effective waste management and the subject of research - municipal waste has a strategic value and it is certainly a tool of implementation of the concept of sustainable development. The research on the issues of strategic aspects of municipal waste in re-value perspective opens up a wide field of possibilities, that have not been sufficiently used, especially in the relations of primary and secondary market entities, firms of the sector under review and "re-life/re-use" points/trade.

Keywords: waste management sector, re-cycle, re-value, re-use.

JEL: M00.

INTRODUCTION

The concept of creation of municipal waste re-value fits well with the idea of sustainable development which is also referred to with the notion of green development or eco-development. It is the concept of economics that assumes the level and quality of life on the level guaranteed by civilizational development in a given time. The concept of sustainable development is summarised in the first sentence of WCED (The World Commission on Environment and Development also known as “Brundtland Commission”) report of 1987 - “Our Common Future”: “*On current level of civilization, sustainable development is possible. It is development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”. The definition is based on two key notions: **the notion of “needs”**, in particular the essential needs of the world's poor, to which overriding priority should be given; and the **idea of limitations** imposed by the state of technology and social organization on the environment's ability to meet present and future needs. The content of the report suggests that achieved level of civilisation can be maintained on condition of appropriate management in the sphere of economics, environment and social well-being.

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According to the opinion of the Club of Rome included in “The Limits to Growth”, taking care of sustainable development in all spheres of life and human activity is necessary to secure further existence of life on Earth and the possibility to meet the essential needs of all the people and future generations. It arises from the definition included in the norms and documents of the United Nations that: *sustainable development of the Earth is the development that meets the basic needs of all the people and conserves, protects and restores the health and integrity of the Earth's ecosystem without compromising the ability of future generations to meet their own needs, without going over the limits of long-term capacity of the Earth's ecosystem* [Stappen, 2006]. Thus, sustainable development represents such economic growth that leads to social cohesion and improvement of the quality of natural environment [Gerwin, 2008; Kozłowski, 2005]. In Poland the principle of sustainable development is included in art. 5 of the Constitution of the Republic of Poland [Konstytucja..., 2015], and the definition of sustainable development is comprised in Environmental Protection Law in the following wording: *[it is] such socio-economic development in which the process of integration of political, economic and social actions occurs at conservation of natural balance and persistence of elementary natural processes in order to guarantee the possibility of meeting basic needs of specific communities or citizens of both contemporary generation and future generations* [Ustawa, 2001].

Therefore, implementation of 5R concept (*Refuse, Reduce, Reuse, Repurpose, Recycle*) [Kronenberg, Bergier, 2010, 294-296] that corresponds to approaching municipal waste in a qualitatively new way is a desirable and reasonable activity sustainable development (table 1).

TABLE 1
5R concept – practical approach

Refuse	Reduce	Reuse	Repurpose	Recycle
- say no - refuse - do not buy	- reduce shopping to meeting necessary needs	- use again	- use in a creative way - look for a new application of the product	- segregate and recycle
"Say no to plastic grocery bags", "Refuse to buy harmful products, like cleaners", "Refuse to buy GMOs", " Say no to single use plastic"	"Do you really need the latest smart phone?", "Reduce the amount of energy you use to heat your home by getting an energy audit"	"Replace any single use items with reusable ones – like reusable grocery and produce bags, reusable water bottles, travel mugs",	"Pretty up a regular old cardboard box to use as storage"	„Recycle all the basics you can – paper, plastic, metal, and glass”, “Recycle ALL fabric – even stained or ripped clothing”, "Recycle all electronics"

Source: own case study.

This new waste quality and thus strategic value, first of all represents reduced amount of waste, but also the value satisfying the needs of aware eco-consumers and unsatisfied demand of customers of price (low) segment.

METHODOLOGY

The paper applies the methods of conceptual research, and qualitative empirical research (case study)². Analysis of the literature of the subject and research based on secondary and primary sources was performed.

TABLE 2
Basic information about conducted research

Specification	Characteristic features
research technique	critical analysis of the literature and trade magazines, analysis of webpages, analysis of sponsored interviews, direct interviews
sample selection	targeted selection of typical units
sample size	Leader of waste management sector in Region IV, by the criterion of facility machinery 20 representatives of RIPOK [<i>Regional Municipal Waste Treatment Facility</i>] in Poland
	Over 10 trade webpages related to waste management sector
geographical range	global range
time range	2014-2018

Source: own case study.

For the needs of the entities that have the status of RIPOK [*Regional Municipal Waste Treatment Facility*] by the criterion of indication by a leader and position according to secondary sources of the sector were selected for the analysis of expanded case study.³

STRATEGIES OF MUNICIPAL WASTE RE-VALUE

Re-value strategies resulting from combination of dimensions of intended use and user category have at least fourfold nature (tab. 3). They all correspond to the 5R concept (Refuse, Reduce, Reuse, Repurpose, Recycle).

² Application of the method seems justified because:

1/ research concerns contemporary, dynamic phenomena and knowledge about these phenomena that is created;
2/ they concern research of actual contexts of these phenomena at rather large ambiguity of borders between their contexts and the very phenomena;

3/ the subject of research is too complicated to explain the cause and effect relationships by means of the survey method or experiment.

³ Sample selection was performed on the basis of leader's indication and on the basis of indications in final report of III stage expert opinion aiming at performance of waste examination in 20 waste mechanical and biological treatment plants financed from resources of the project no POPT.03.01.00-00-375/13-00, [19].

TABLE 3
Strategies of municipal waste re-value in purpose-user dimensions

		intended use	
		previous	new
user	previous	strategy of renovated waste	strategy of building awareness in the process of knowledge diffusion and / or strategy of waste modification
	new	strategy of exchange of used product and / or the strategy of an active approach to unsatisfied demand (active analysis of market absorption)	strategy of building awareness and / or modification of waste for implementation of active approach to unsatisfied demand

Source: own case study.

Strategy of renovated waste mainly includes promotion of repair, servicing and renewal of products by their owners before their final disposal. These actions can be taken by the very product owner or they can be referred to service centres established for this purpose. **Strategy of waste exchange and/or strategy of active approach to unsatisfied demand** is noticed especially on the market of household appliances, radio and television equipment, computers, furniture and bicycles. “Give or take” days, “Second hand banks”, street markets, exchange on Websites are only few forms of implementation of the strategy. Its realisation also takes the form of the networks of furniture renovation, repair of electronic equipment, refrigerators and bicycles, that within the active approach to unsatisfied demand, are given to families with little income, or are sold after being renovated, to customers with low income. Such re-sale can be organised on an inter-municipal scale in the form of “exchange and re-sale centres”. To make the projects self-sufficient, re-sale of majority of recovered equipment is recommended, but at relatively low, attractive price. Furthermore, in this way customer’s discomfort associated with being a beneficiary and the situation in which donated equipment soon proves to be under-valued waste are avoided. Food banks also perform a role in implementation of this strategy as they prevent waste and the phenomena of hunger in some social groups. **Strategy of building awareness in the process of knowledge diffusion and/or strategy of waste modification** is largely based on pro-ecological initiatives aiming at shaping social attitudes and behaviours that are compatible with the assumptions of the policy of waste amount reduction. Customers’ attitudes of “zero waste” character, expressed by highly creative way of giving a second life to products perceived as waste through combining, assembly, reduction, etc. support implementation of this strategy option. The strategy of building awareness and/or modification of waste for realisation of active approach to unsatisfied demand comprises actions referring to customers who intentionally provide themselves in second-hand centres regardless of their financial status. Eco-convictions of

customers determine their buying behaviours. The so-called Banks of wood established for recovery of wood from construction sites for the purpose of re-use for the needs of household woodwork, sculpture or as fuel, also programs of “rests of paint recovery” that appropriately mixed can offer a new quality are examples of forms of the strategy implementation.

REUSE POINTS AS ENTITIES ON MUNICIPAL WASTE MARKET

Strategies described before, implemented by **reuse points**, and organised as a separate strategic business unit at PSZOKs (Points of Selective Collection of Municipal Waste) comprise specific activities forming the **process of reuse of products** recognised as waste.

They include:

- waste collection;
- waste storage;
- checking whether collected waste is suitable for reuse without the need of service or repair;
- isolation, from the stream of waste, of products that are suitable for re-use (without the need to service them or repair);
- execution of necessary actions within the process of preparation for re-use in the case of waste that needs service or repair. These activities include product servicing through actions such as corrosion protection, waxing, repair of damaged products through exchange of damaged elements, puttying, riveting, drilling, welding and grinding,
- storage of products intended for re-use;
- selective way of storage of waste produced as a result of processing.

Preparation for re-use can take place outside installations and appliances. Such form of waste recovery is permitted under art. 30 section 3 and 5 of the act on waste of 2012 as well as regulation on waste recovery outside installations and appliances (amendment to regulation, section 2) [Law of 14th December 2012, Law of 27th April 2001, Regulation of Ministry...2015, European Commission, 2012; Krajowy Program..., 2014].

Due to realisation of the elements of the process described before, organisational structure of re-use plant can take functional-market form (table 4).

TABLE 4
Re-use plant (RPU) organisational matrix

Functional-market, organisational matrix of RPU		
points of renovation of deposited product/waste (service, repair, renovation) for economical customers of low and medium price market	points of collection and exchange of potential waste for economical customer segment	point of access to products segregated from waste stream
		<i>after renovations products are made commercially available on low-price markets or in segments of eco-customers</i>
		<i>products directly gained from stream</i>
		<i>for use in unchanged form for customers who are not well-off, or for eco-customers</i>
		<i>as components and units of a product for the segment of "assembler"/prosumers</i>

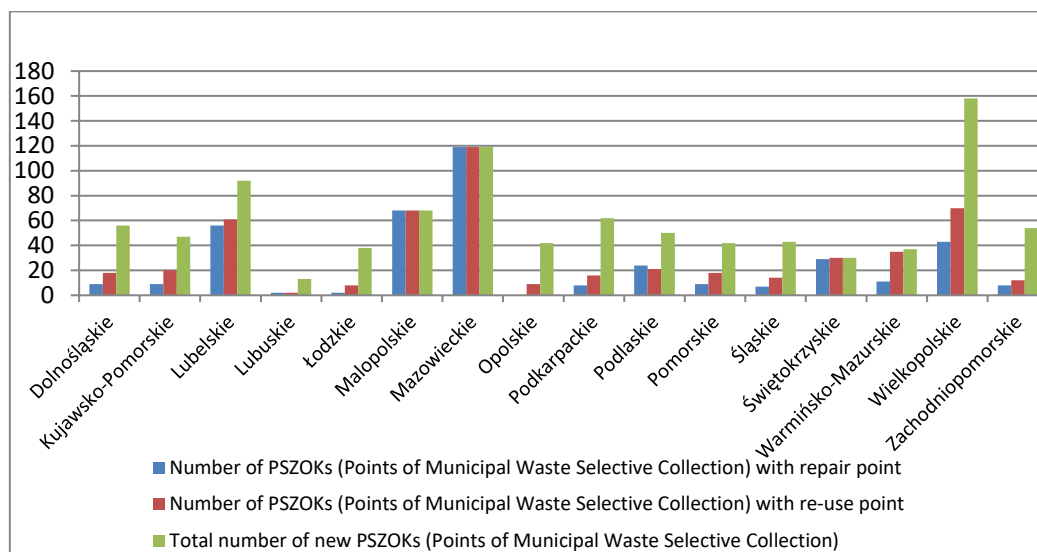
Source: own case study.

Obviously, re-cycling in the market product life-cycle by its re-use delays and reduces the cost borne by the environment at production of a given new product purchased to satisfy replacement demand, offers the opportunity to employ people socially excluded or people unemployed for a long time, supports activation of older people, as well as it helps people in need. Thereby it supports implementation of image strategies of a committed entity and municipality.

POINTS OF RE-USE AS A FORM OF SUSTAINABLE TRADE. DOMESTIC AND INTERNATIONAL EXAMPLES

Analysis of operating WPGO (Regional Waste Management Plan) for the years 2016-2022 showed that in Poland there are 35 repair points and 74 re-use points functioning at PSZOKs (Point of Municipal Waste Selective Collection) (fig. 1). However, actually a lot of repair points exist only theoretically (table 5).

FIGURE 1
Planned repair points and reuse points at PSZOKs (Point of Municipal Waste Selective Collection) according to investment plan 2016-2020 in Poland, by voivodships



Source: [Recommendations for..., 2017].

Within investment plans, municipalities plan organisation of 404 repair points and 531 re-use points for existing WPGOs (District Plan of Waste Management) that will be located next to PSZOKs (Points of Municipal Waste Selective Collection).

TABLE 5
Forms and methods of product recycling in the sector of municipal waste in Poland

	barter trade	giving as donation	repair	building ecological awareness	additional services, e.g. café
„Drugie Życie” [“Second life”] Poznań	X				
„Kącik rzeczy używanych” [“Second hand corner”] Słupsk, Stalowa Wola, Gorzów Wlkp.	X				
„Galeria Szpargałek” [“Junk items gallery”] Szczecin	X				
Repair Cafe Piła, Katowice	X	X	X		X
Skład charytatywny Poznań [“Charity storehouse Poznan”], Warszawa, Kraków, Toruń		X			
Internet portals e.g. DIY (do it yourself)				X	

Source: own case study.

Much more intense forms of implementation of the concept of sustainable development by product Recycling, i.e. not only collection, renovation at PSZOKs (Point of Municipal Waste Selective Collection) and return of products recovered from waste stream to market is presented by the countries of developed economy (table 6).

TABLE 6
Forms and methods of product recycling in the sector of municipal waste on world markets

Austria	Belgium	Sweden	Holland	Great Britain	Hongkong
Virtual communities, Non-profit organisations Trading entities on secondary market	“flea market” Second-hand shops Antique market Department stores	Non-profit organisations Shopping centres/second-hand shops Centres of repair services	Retail trade sector Shops of charity organisations Firms providing repair services	Charity organisations Charity stores Online sale	Waste Reduction Programs Recycling non-profit Organizations Community Green Stations Community Recycling Network E-waste collection Hotline and Collection Service Collection Points Community Recycling Centres NGO Collection Points
Internet forums: www.reparaturfe uehrer.at, WWW.reparaturnetzwerk.at; Revital Stations, LAVU-organisation working in repair, renovation and sale for non-profit organisations of social character, 48erTandlerWien er market – market of old items, Tandler-Box	Oxfam organisation – network of shops for third world countries; Kringwinkiel association, non-profit, 135 stores and 30 repair centres, Foundation for children and homeless people, Vintage Market – 60 markets with second-hand things,	Avfall Sverige – PR organisation for “zero waste”, Retuna AterbruksGalleria – second life centre and repair centre, Ebbes Horns – church association, Returhset centre with café and eco-food	Government program “Green Deal” for development of entrepreneurship in the sphere of “zero waste”, Repair café (800 points in Holland, 1300 in the world)	CEX chain – sale of second-hand electronics, Gumtree platforms, eBay,	“Hongkong chain Blueprint for Sustainable Use of Resources 2013-2022” Organisations: Christian Action, Industrial Relations Institute, Salvation Army and others

Source: own case study based on Internet resources: [www.europaśrodkowa..., www.eionet, www.angloinfo, www.expatica, www.euractiv, www.triplepundit, www.antwerpen, Wsparcie na działania..., 2015].

Re-cycling structure is much more complex and diverse which also supports greater market penetration.

CONCLUSIONS

Certainly, municipal waste as marketing product can be recycled in their market life-cycle. This stage of product life cycle can be realised at involvement of many various entities

from the sector of municipal waste, companies, non-profit organisations and governments of states. Strategic value of such product selected from waste stream and returned to market circulation is expressed by profits of Eco-social, business and image dimension of the companies of the sector and their cooperants. However, as suggested by theoretical approach, complexity and systemic character of these actions is difficult, at least in some cases. Re-use points definitely support implementation of 2 among 5 elements of 5R concept, i.e. Reuse, and Repurpose. However, consistent comprehensiveness in this area (5R) of the entities of the sector and their cooperants is not easy. Besides, on this stage of research, the tasks seem to have one-option nature and do not use the whole scope of possibilities. Only some RUPs (Re-use point) establish relationships with the entities in the environment and provide a broader range of services and not only exchange and small repair services, at least in the case of Polish market. It seems, that still poor level of awareness and resulting little commitment to implementation of the concept of sustainable development through Re-cycling in at least some economies and societies make this subject area interesting and worth focussing on in further research.

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Corruption and Air Pollution in Eastern & South-Eastern Europe: an Empirical Analysis

Maria Panteli¹

ABSTRACT: Corruption has been acknowledged as a phenomenon with profound negative effects for the societies and economies of both developed and developing countries. Among the wide range of negative consequences pinpointed in the literature, there is a growing body of work suggesting that corruption can lead to a decreased level of environmental quality. Given that environmental degradation and climate change are considered among the major threats that the world faces today and pose a significant obstacle in achieving the goal of sustainable development, the present study seeks to further empirically investigate the relationship between corruption and air pollution in the European context, with emphasis placed on Eastern and South-eastern Europe. The quality of the environment in this group of countries has been greatly influenced by the legacies of the past. However, a detailed statistical analysis of the corruption – pollution nexus with emphasis on this set of countries has not (to our knowledge) taken place in the literature. Using panel data for 39 European countries over 1996 to 2014, the impact of corruption on two environmental indicators (carbon dioxide and greenhouse gas emissions) is estimated. An augmented Environmental Kuznets Curve (EKC) specification is used, as air pollution is modelled as a function of income, corruption and other factors. In the empirical strategy employed a distinction is also made between the direct and indirect (operating through income) impact of corruption on pollution. The paper’s findings support the hypothesis that corruption influences greenhouse gas emissions both directly and indirectly. Furthermore, differences on the magnitude of the effect of corruption on air quality between the Eastern & South-eastern European sub-regions and the rest of Europe are identified. Policy implications are also discussed.

Keywords: corruption, Eastern & South-Eastern Europe, environment, income, pollution.

JEL: Q53, K42, Q58.

INTRODUCTION

Environmental degradation and climate change has become one of the major threats that the world faces today. According to the United Nations, environmental quality has been severely compromised over recent decades and climate change is accelerated by human activity, posing a global challenge which demands international cooperation. At the same time, air pollution has been characterized as the single largest environmental risk, with carbon dioxide emissions alone increasing the positive climate forcing or warming effect by 30 percent during the period 1990 – 2015 (US Environmental Protection Agency). The consequences of reduced air quality are far reaching for human health and the planet. As the World Health Organization (WHO) estimates, air pollution is a cause of more than seven million deaths annually, and thousands of deaths each year are a result of the phenomena associated with climate change.

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In the European continent, climate change can be a major obstacle in achieving the goal of sustainable development. According to the United Nations Environmental Program's regional assessment report (GEO-6 Assessment of the pan-European region, 2016) reduced air quality is the largest health risk to the European population, with more than 95 percent of the people living in urban areas being exposed to pollution levels that exceed the WHO guidelines. Moreover, many of the activities that are responsible for increased air pollution, greatly contribute to greenhouse gas emissions as well. And while in the European Union (EU) these emissions are either stable or declining, wide disparities exist between the EU and some of the other European sub-regions, e.g. the emission trends in South-eastern (SE) Europe.

As it has been frequently pointed out, environmental quality improvements are often a result of effective regulation. But the instances in which effective regulation is hampered by the presence of corruption are far from rare, even in the European context. Previous theoretical research has shown that corruption throughout the policy formation process can negatively impact the stringency of environmental policy. Furthermore, corrupt transactions taking place at lower administrative levels within the bureaucracy can hamper the effectiveness of environmental regulation by affecting the level of compliance (Damania, 2002; Fredriksson & Svensson, 2003; Wilson & Damania, 2005). Cross country empirical analysis also demonstrates that both environmental policy stringency and actual pollution levels are significantly affected by corruption (Pellegrini & Gerlagh, 2006; Fredriksson & Vollebergh, 2009).

However, quantitative estimates of the effect of corruption on air pollution in regional rather than global settings are very important from a policy perspective. Given the risks associated with environmental degradation, the present paper aims to investigate the impact of corruption on carbon dioxide emissions and greenhouse gas emissions using panel data for 39 European countries for the period 1996 - 2014, with emphasis placed on Eastern and SE Europe. In this group of countries, a post-socialist transformation process has been taking place over the last two decades, with restructuring state institutions and establishing market economies being at the forefront of the efforts. At the same time the quality of the environment in the region has been greatly influenced by the legacies of the past (EEA Report, 2010). And while the presence of corruption has been frequently highlighted as a major obstacle for environmental protection, a statistical analysis of the exact impact of corruption on air pollution does not (to our knowledge) exist in the literature, a missing element which this paper seeks to fill.

The reminder of the paper is organized as follows: the next section offers a brief literature review, section 3 discusses the data and methodology used in the empirical analysis, while in section 4 results are presented. Section 5 concludes the paper.

LITERATURE REVIEW

In the environmental economics literature, environmental degradation has been traditionally linked to the scale of economic activity. The hypothesis that has been initially made stated that as economies continue to grow, pollutions levels would tend to increase as well. During the early 1990's however, this view was contested, as many researchers argued that the deterioration of environmental quality is a consequence of economic growth at the outset of economic development. In later stages, a further increase in income would ultimately lead to improved environmental quality (Grossman & Krueger, 1991). In other words, the relationship between income and pollution exhibits an inverted U-shape pattern, widely known as the Environmental Kuznets Curve (EKC). And while the empirical results with respect to the existence of the phenomenon are still inconclusive (Stern, 2004), this framework has offered a basis for analysing the relationship between corruption and the quality of the environment.

Extensive research over recent decades has shown that corrupt transactions are linked to a wide range of negative consequences for the economies and societies of both developed and developing countries, ranging from a negative impact on economic growth (Hall & Jones, 1999), investment (Mauro, 1995; Knack & Keefer, 1995) and FDI (Wei, 2000), to increased income inequality (Gupta et al, 2002) and inefficient provision of government services (Gupta et al, 2000). With respect to the relationship between corruption and pollution, empirical work has provided evidence that corruption can be an important determinant of environmental quality, via two distinct mechanisms. The first is linked to the direct impact of corruption on pollution at given income levels, while the second stems from the negative relationship between corruption and growth and the subsequent effect on environmental quality through income.

Under this framework Welsch (2004) utilizes cross-sectional data on various indicators of pollution and finds that environmental degradation is increasing in corruption. With respect to the indirect effect, the findings support that corruption can either reduce or increase pollution, and this depends on income levels. Following Welch (2004), Cole (2007) also estimates the effect of corruption on air pollution emissions through the direct and indirect mechanisms by utilizing panel data. The results are in accordance with Welsch's findings

with respect to the direct effect of corruption on pollution. When it comes to the indirect effect, this is estimated to be negative, even though increasing as the level of per capita income rises.

The work discussed above indicates that the direct effect of corruption on pollution is most likely positive. When it comes to the indirect and the subsequent total effect however, results are still inconclusive. In what follows the magnitude and significance of these effects in the European setting are calculated.

DATA AND METHODOLOGY

In order to capture the direct and indirect impact of corruption on environmental quality, the methodology used by Cole (2007) is closely followed and two separate equations are formulated. Specifically, per capita carbon dioxide emissions and per capita greenhouse gas emissions are chosen as the two environmental indicators (P) to be studied, and they are expected to be a function of corruption ($corr$), per capita income and a vector of other factors (X) common in the EKC literature. By specifying and estimating this relationship, the direct effect of corruption on air pollution is captured.

$$P = f(corr, GDP, X) \quad (1)$$

The additional explanatory variables in (X) used in the analysis are the share of industry in GDP (structure of an economy), openness to trade which is believed to influence emissions, energy efficiency, the structure of a country's energy production, population density and the share of urban population in total population. These data are taken from the World Bank, while data on the degree of corruption are taken from the HIS Global Insight Business Risk and Conditions, publicly available from the portal of the underlying data sources of the Control of Corruption component of the Worldwide Governance Indicators.

The indirect effect of corruption on pollution stems from the fact that corruption has been found to adversely affect economic growth. For this reason income is expected to be a function of corruption and other factors commonly used in the growth literature:

$$GDP = g(corr, Z) \quad (2)$$

where (Z) includes measures of human and physical capital (Penn World Table, version 9.0), openness to trade, the rate of inflation and the rate of population growth (World Bank). Finally, the total effect of corruption on pollution is calculated as:

$$\frac{dP}{dcorr} = \frac{\partial P}{\partial corr} + \frac{\partial P}{\partial GDP} * \frac{\partial GDP}{\partial corr} \quad (3)$$

where (P) stands for the two air pollution indicators, (GDP) is per capita income and ($corr$) denotes the level of corruption. In this expression, the total change in pollution with respect to corruption is decomposed into the direct effect of corruption, which is captured by the first term on the right-hand side of the equation, and the indirect effect, which is the product of the change of pollution caused by income and the change of income caused by corruption.

TABLE 1
Variables' definitions and sources

Variable	Definition	Source
co2pc	Carbon dioxide emissions, metric tons per capita	World Bank
GHgas	Greenhouse gas emissions, kilotons of CO ₂ equivalent per capita	World Bank
GDP	GDP per capita in constant 2010 US\$	World Bank
corr	Extent of corruption, rescaled to run from 1 (least corrupt) to 2 (most corrupt), from HIS Global Insight Business Risk & Conditions	Portal of the Worldwide Governance Indicators
indshare	Industry (including construction), value added (% of GDP)	World Bank
trade	Sum of imports and exports of goods and services as a share of GDP	World Bank
coalelectr	Electricity production from coal sources (% of total)	World Bank
enrgeff	Energy efficiency defined as GDP per unit of energy use (constant 2011 PPP \$ per kg of oil equivalent)	World Bank
populdens	Population density: people per square kilometer of land area	World Bank
populurban	Urban population (% of total)	World Bank
inflation	Inflation (annual %)	World Bank
popgrowth	Population growth (annual %)	World Bank
KSpw	Capital stock, constant 2011 national prices in mil. 2011 US\$ / labor force	Penn World Table, version 9.0 & World Bank
hc	Human capital index, based on years of schooling and returns to education	Penn World table, version 9.0
Latitude	Distance from the equator in degrees /90	http://dateandtime.info

Specification and Estimation Method

As a first step in estimating the total effect of corruption on pollution, the relationship between income and corruption is modeled and estimated. Contrary to previous work, in which the chosen estimation method has been two-stage least squares with fixed or random effects, in this paper analysis is conducted in a dynamic panel data setting and the Arellano-Bover/ Blundell-Bond estimator is employed. The system generalized method of moments estimator used here offers a number of advantages. According to Roodman (2009) system GMM is well suited in cases where we have a large number of cross-sectional units (N) and a relatively small time period (T), the dependent variable is dynamic and depends on its own previous realizations, the independent variables cannot be considered as strictly exogenous, there are time-constant unobserved effects and possibly there is heteroskedasticity and serial correlation within the cross-sectional units. Furthermore, as Blundell and Bond (1998) show, when the dependent and independent variables exhibit persistent behavior the system GMM can offer a good solution.

As it is obvious, the estimator just described is ideal considering the properties of the variables in this analysis. The model for estimating the impact of corruption on income is:

$$\ln DPG_{it} = \alpha_1 \ln GDP_{it-1} + \delta_1 \ln corr_{it} + \delta_2 Z_{it} + \delta_3 t + \eta_i + \lambda_t + e_{it} \quad (4)$$

where subscript i denotes country and subscript t year, η_i represent country specific effects partially swept away by the system GMM estimator, λ_t are year specific effects, t is a time trend and e_{it} is the error term. The first lag of income per capita enters the model as an explanatory variable, while the dependent variable, per capita GDP, and the key independent variable, corruption, are both expressed in natural logarithms. A squared term of capital stock per worker is also included in the model in order to capture diminishing returns. Standard instruments for accounting for the possible feedback between income and corruption, such as distance from the equator (Hall & Jones, 1999), are also used in the analysis.

After estimating the equation explaining per capita income in terms of corruption, results are used in order to estimate the effect of corruption on per capita CO₂ emissions and greenhouse gas emissions. The chosen specification is:

$$\ln P_{it} = \alpha_i + \gamma_t + \beta_1 \ln corr_{it} + \beta_2 \ln GDP_{it} + \beta_3 (\ln GDP_{it})^2 + \beta_5 X_{it} + \beta_6 t + u_{it} \quad (5)$$

where i and t again signify country and year respectively, per capita carbon dioxide emissions, per capita greenhouse gas emissions and corruption are expressed in logarithmic forms, along with income per capita and a squared income term. From the additional control variables, energy efficiency also enters in logarithmic form, while the rest of the explanatory variables are used in their original form. Country and year fixed effects are also included in the model, along with a time trend. Finally, a fixed effects estimation method is employed.

RESULTS

Impact of Corruption on Income

In all models presented in table 2 per capita income and corruption are treated as endogenous and therefore instrumented. The first model includes lagged income, corruption, the measures of human and physical capital, as well as population growth. In models 2 and 3 a squared term of capital stock per worker is included, along with the rate of inflation and the rate of population growth. Corruption is statistically significant in all models, and in models 2 and 3 it is significant at the 5 percent level. As expected income exhibits a persistent behavior, revealed by the coefficient on the lagged income term. In the third model (the preferred specification for the subsequent analysis) all variables have the expected signs, with the exception of the coefficient on the squared term of capital stock per worker and trade openness.

TABLE 2
Estimates of the effect of corruption on per capita income

<i>lnGDP</i>	M-GDP(1)	M-GDP(2)	M-GDP(3)
<i>Lag1 lnGDP</i>	0.77*** (0.088)	0.74*** (0.089)	0.704*** (0.088)
<i>lncorr</i>	-0.399* (0.207)	-0.45** (0.205)	-0.43** (0.206)
<i>lnhc</i>	0.177 (0.155)	0.25 (0.16)	0.35** (0.173)
<i>lnKSpw</i>	0.189* (0.097)	0.454** (0.184)	0.56*** (0.188)
<i>(lnKSpw)²</i>		0.06* (0.036)	0.077 (0.036)
<i>popgrowth</i>	-0.003 (0.029)	-0.0009 (0.029)	0.018 (0.03)
<i>inflation</i>			-0.0002 (0.0028)
<i>trade</i>			-0.0009* (0.0005)
<i>Sargan test p – value</i>	0.31	0.3	0.27
<i>H₀: no AR(1) s. c. p – value</i>	0.22	0.21	0.202
<i>H₀: no AR(2) s. c. p – value</i>	0.19	0.18	0.16
<i>No of obs.</i>	584	584	584
<i>No of countr.</i>	39	39	39

*Standard errors in parenthesis. ***, ** and * denote significance at the 99%, 95% and 90% levels respectively. The system GMM estimator is used in all specifications*

When it comes to the magnitude of the impact of corruption on income per capita, it should be noted that, since our model is dynamic in nature, a distinction must be drawn between the short-run and the long-run effect. More specifically, given the estimates from model 3, in the short run a 1 percent increase in corruption leads to a decrease in mean per capita income by 0.43 percent. In the long-run however, the impact of corruption on income is given by:

$$\frac{dlnGDP}{dlncorr} = \frac{\delta_1}{1 - \alpha_1} \quad (6)$$

where δ_1 is the coefficient on corruption and α_1 is the coefficient on the lagged income term. Therefore, the long-run impact of corruption on income is much higher than the short-run, as an increase in corruption is expected to decrease mean per capita income by 1.45 percent.

Impact of Corruption on Pollution

By utilizing the results from the income model as specified and estimated in model GDP(3), we are now able to estimate the direct effect of corruption on our two environmental indicators:

TABLE 3
Estimates of the effect of corruption on Carbon Dioxide emissions and Greenhouse gas emissions

	CO ₂		GHgas				
	M-P(1)	M-P(2)	M-P(3)	M-P(4)	M-P(5)R	M-P(6)	M-P(7)
<i>lncorr</i>	0.021 (0.1)	-0.054 (0.092)	0.36** (0.17)	0.51*** (0.16)	0.507*** (0.132)	0.494** (0.202)	0.492*** (0.164)
<i>lnGDP</i>	2.86*** (0.32)	3.19*** (0.306)	1.85*** (0.465)	2.86*** (0.48)	2.86*** (0.75)	2.87*** (0.48)	2.91*** (0.49)
<i>(lnGDP)²</i>	-0.135*** (0.019)	-0.15*** (0.017)	-0.061** (0.028)	-0.096*** (0.027)	-0.096** (0.037)	-0.097*** (0.027)	-0.099*** (0.027)
<i>indshare</i>		0.011*** (0.0021)		-0.0024 (0.0035)	-0.0024 (0.0045)	-0.0024 (0.0035)	-0.002 (0.004)
<i>coalelectr</i>		0.007*** (0.001)		0.0018 (0.0018)	0.0018 (0.0023)	0.0018 (0.002)	0.0019 (0.0018)
<i>enrgeff</i>		-0.38*** (0.048)		-0.56*** (0.082)	-0.56*** (0.094)	-0.56*** (0.08)	-0.56*** (0.08)
<i>trade</i>		0.0004 (0.0003)		0.003*** (0.0006)	0.003*** (0.0007)	0.003*** (0.0006)	0.003*** (0.0006)
<i>populdens</i>		0.0016*** (0.0006)		-0.0003 (0.0013)	-0.0003 (0.0009)	-0.0003 (0.0014)	-0.0003 (0.0014)
<i>populurban</i>		0.0016 (0.0014)		-0.0022 (0.002)	-0.0022 (0.0015)	-0.0022 (0.002)	-0.0021 (0.002)
<i>dPS * lncorr</i>						0.032 (0.294)	
<i>dWB * lncorr</i>							0.41 (0.76)
<i>Hausman</i>	-	0.0000	-	0.0000	-	0.0005	0.0000
<i>Prob > chi2</i>							
<i>n</i>	578	578	486	486	486	486	486
<i>No of countr.</i>	39	39	38	38	38	38	38

Standard errors in parenthesis. ***, ** and * denote significance at the 99%, 95% and 90% levels respectively. In models 1 & 2 CO₂ emissions are the dependent variable. Models 3-7 refer to Greenhouse gas emissions. Estimation is performed using the results from model GDP(3). A fixed effects estimation method is used in all models. Goodness-of-fit measures are unclear when estimating a model by fixed effects, thus R² are not reported

As far as carbon dioxide emissions are concerned, the effect of corruption is not statistically significant at conventional significance levels. Moreover, when controlling for other factors that may affect air pollution, apart from income per capita, corruption has a counterintuitive sign. On the other hand, when considering greenhouse gas emissions as a bundle, the effect of corruption is highly statistically significant and has the expected sign. In particular, in model P(4) where all control variables are included, a 1 percent increase in the level of corruption is expected to increase mean greenhouse gas emissions by 0.51 percent. These results are robust when correcting for within-panel serial correlation and cross-sectional heteroskedasticity (model P(5)R).

Next, the possibility of a difference in the effect of corruption on pollution between post-socialist states in Eastern and SE Europe and the rest of the countries in our sample is examined for greenhouse gas emissions. In particular, in model P(6) an interaction term between corruption and a dummy variable indicating post-socialist states in the region is included. Since the model is estimated by fixed effects the dummy variable itself cannot enter

into the model. However, the coefficients on corruption and the interaction term are informative regarding the difference in the effect of corruption on air pollution between the two groups of countries². For non-post-socialist states a 1 percent increase in corruption increases mean air pollution by 0.494 percent, while for post socialist-states mean greenhouse gas emissions increase by 0.526 percent. The difference in the effect of corruption on air quality is even more pronounced when we compare the countries in the Western Balkan region with the rest of the sample. The estimates from model P(7) reveal that a 1 percent increase in corruption leads to an increase in mean greenhouse gas emissions of about 0.9 percent in the Western Balkans, compared to 0.49 percent in the rest of the sample. Thus it becomes obvious that the difference between the two groups of countries is far from negligible in magnitude.

Direct, Indirect and Total Effect of Corruption on Air Pollution

The last step in the analysis is to calculate the direct, indirect and total effect of corruption on greenhouse gas emissions. For the whole sample, the direct effect of corruption is 0.51. As already discussed above, the indirect effect comes from the product of the change of emissions caused by income and the change of income caused by corruption. Note that since the “pollution” equation has a squared income term, the change of emissions depends on the given income level. Therefore the effect is calculated at the median income level of the whole sample. The change of income caused by corruption corresponds to the value 1.45 (the long-run impact calculated above) and the resulting indirect effect is 1.36. The total effect is positive, with a value of 1.87. In a similar vein, calculations are conducted for post-socialist states in Eastern and SE Europe, and also separately for the countries in the Western Balkan region:

TABLE 4
Direct, indirect and total effect of corruption on greenhouse gas emissions

	Direct	Indirect	Total
Europe (38 countries)	0.51	1.36	1.87
Eastern & SE Europe	0.526	1.6	2.13
Western Balkan region	0.9	1.74	2.64

Table 4 shows that both the direct and indirect effect of corruption on greenhouse gas emissions are positive reinforcing each other. Moreover, the total effect for Eastern and SE

² Note that the coefficient on the interaction term is not individually significant, but it is jointly significant with the coefficient on corruption at the 1 percent level ($p - value = 0.0074$).

Europe is larger than the effect for the whole sample of 38 countries, and it becomes even larger when estimated only for the countries in the Western Balkan region. The analysis that has taken place demonstrates that the fight against corruption can have a significant positive impact both on the level of per capita income and on air quality through the direct and indirect mechanisms.

CONCLUSION

In this paper the effect of corruption on air pollution has been estimated in a sample of 39 European countries. It has been shown that the impact of corruption on air pollution is positive and caused by the direct channel, a finding which is in accordance with previous studies in the literature. Results from previous analyses regarding the sign and magnitude of the indirect effect have been contradicting. The findings of the paper support a positive indirect impact of corruption on per capita greenhouse gas emissions, reinforcing the positive direct effect. Thus, informed policies aimed at combating corruption can have multiple benefits in the form of increased air quality which is interrelated with human health, the limitation of the consequences of climate change, but also increased income per capita.

Regarding, the contradicting findings of this paper with respect to the different environmental indicators used in the analysis, it has to be noted that carbon dioxide emissions is a global air pollutant which has historically been less regulated than other pollutants with a more regional impact. As such, the use of corrupt practices in overcoming strict regulations may be less relevant in the case of CO₂ emissions, given the time period that has been under investigation. It should be mentioned however, that most of the findings of previous studies with respect to carbon dioxide emissions and corruption tend to find a significant positive relationship between the two. Thus, the methodology used in this paper, which differs with respect to the estimation method used to find the impact of corruption on GDP per capita, can be employed to larger samples of countries, to investigate whether the insignificant results are stemming from a “unique” situation in Europe, or reveal a different pattern from what it has been previously found in the literature.

Finally, the findings of this study support the hypothesis that significant differences exist with respect to the effect of corruption on air pollution among the European sub-regions. Given the efforts for convergence among countries in the European environment, the continuing process of European integration and a commonly declared strategy to mitigate the effects of climate change, the efforts for decreasing the incidence of corruption should intensify, as this could result in significant benefits in the long-run. Investing in the fight

against corruption does not always yield immediate results, but as it has been shown by this and other papers a decreased level of corruption can significantly contribute to human well-being and to achieving one of the goals of sustainable development, a fact which could be of interest from a policy perspective.

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Renewable Energy and Community-Led Local Development in Poland: Do Rural Communities Take Measures to Combat Climate Change?

Marek Furmankiewicz¹
Marta Bochenkiewicz²

ABSTRACT: The cross-sectoral area-based partnerships of local stakeholders are a basement of the Community-Led Local Development supported by the European Union through the Rural Development Programme. Local associations called Local Action Groups prepare bottom-up territorial strategies for which they receive financial resources from the Structural and Rural Development Funds. This paper analyses the objectives and planned actions defined by local stakeholders in sample of 162 development strategies prepared for the EU Programming Period 2014-2020 in Poland. It is analysed whether local communities plan to undertake actions to support the development of renewable energy sources and counteracting climate change, on the background of EU and Polish national policy. The analysis of LAGs strategies shows relatively low interest of rural communities in this subject. Most of the funds are distributed to the development of entrepreneurship and employment, human and social capital, tourist infrastructure and other traditional local actions. Strategies provide funds mainly for educational actions related to combating climate change. The actions for the development of renewable energy sources are rare. This shows a relatively low level of "Europeanisation" of rural local elites in the context of the main objectives of the EUROPE 2020 strategy, where the development of renewable energy sources is one of the most important goal of the European Union development.

Keywords: area-based partnerships, Community-Led Local Development, local community strategies, renewable energy, counteracting climate change, Poland.

JEL: D71, 033, Q01, Q25.

INTRODUCTION

The prospect of the rapid climate changes, caused mainly by the burning of fossil fuels, which might result in extremely high costs of adapting settlements and economy to the new conditions, causes the growth of political pressure in many countries in the world to develop renewable energy sources (RES). This applies, inter alia, to the European Union (EU) as an inter-state organization that is trying to force on Member States a high level of investment in RES, to slow down or contain climate change. An attitude towards RES, however, differs among the governments of individual countries. Analyses of national policies and indicators concerning this issue are quite common in international reports and scientific publications (Ugryn, Bertram, & Primova, 2018). Slightly less attention was paid to the bottom-up actions of local communities, which could also contribute to counteracting climate change through local initiatives and small investments in low-carbon economy (Li, Birmelea, Schaicha, & Konold, 2013; Hewitt et al., 2018).

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Swianiewicz et. al. (2018) distinguishes two main approaches to the problem of a rapid climate change: mitigation (incorporated in global, supranational or national climate policy efforts to slow down or stop the changes) and adaptation (often neglected by states, because it must be tackled locally and the local changes cannot be accurately predicted). The main aim of this paper is to analyse targets and measures in territorial strategies for socio-economic development, related to RES (so to the mitigation efforts). The strategies are prepared by local communities in Poland, in cross-sectoral partnerships called LEADER Local Action Groups (LAGs) operating within EU Community-Led Local Development (CLLD) in 2014-2020 Programming Period (European Commission, 2014). We analysed only the documents prepared in rural development LAGs omitting the urban and fishing groups. We used the method of content analysis of documents (social artefacts) common in the social sciences (Prasal, 2008; Babbie, 2011). Analysed strategies were created from the bottom up by elites at the local level in years 2014-2015. LAGs usually cover from 2 to a dozen or so municipalities (self-governed communes) in rural areas. This paper presents the results of the preliminary analysis of strategies prepared by local communities and published on LAGs' internet pages, based on a random sample of 162 LAGs from 279 LAGs, with a degree of accuracy 0.05 (Krejcie & Morgan, 1970). They were prepared to a large extent on a voluntary basis and can show approximately how important were the issues of RES and counteracting climate change and for local inhabitants of rural areas, in comparison with other, traditional goals of development.

In the next paragraph, we shortly present the characteristics of LAGs. Subsequently, as a part of the introduction, we briefly discuss the main characteristics of EU and Polish national policies in support of RES, especially for small installations at the local level. Then we discuss the empirical results of LAG strategies analysis, whether they include RES support. At the end, we conduct a brief discussion of the results.

CLLD TERRITORIAL PARTNERSHIPS: LOCAL ACTION GROUPS

Local Action Groups have been operating in Europe since 1991, when the Community Initiative LEADER started to be implemented. In Poland (which joined the European Union in 2004) they have been created mostly from around 2005 (Furmankiewicz, 2008; Furmankiewicz, Kniec, & Atterton, 2015). They are cross-sectoral territorial partnerships operating in 1991-2013 in rural areas and in small towns, and since 2014 also in urban areas. In Poland, they are currently registered as associations of individual persons and formal

entities. They are based on grass-roots cooperation of representatives of local residents, non-governmental organizations, entrepreneurs and the public sector. They are widely described in the literature and analysed in terms of creating social capital, issues of governance and development of rural areas (e.g.: Moseley, 2003; Doitchinova, Miteva, & Stoyanova, 2012; Furmankiewicz, 2012). In Poland, they include territorially compact areas inhabited by 30,000-150,000 inhabitants. LAGs prepare territorial development strategies and then receive financial resources for their implementation. They organize grant competitions for entities operating in their area that want to implement projects according to the aims of the strategy (Zajda, Kołomycew, Sykała, & Janas, 2017; Chmieliński, Faccilongo, Fiore, & La Sala, 2018). The documents emphasize the high importance of the participation of local communities in preparing the strategy, and must contain a detailed description of the inhabitants' participation (description of the consultation method, working meetings and other activities). Hence, the strategy analysis can show what goals are most popular among local stakeholders engaged in LAGs.

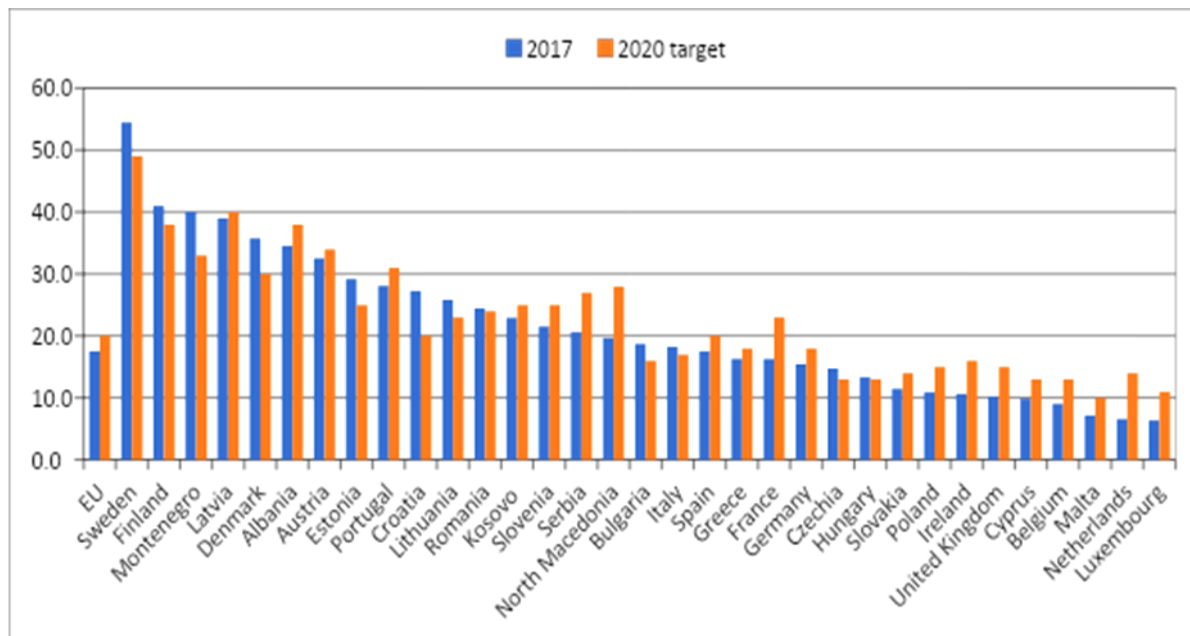
RENEWABLE ENERGY POLICY IN EUROPEAN UNION

In last decades, the European Commission prepared two main sets for energy policy – the packages for climate and energy targets for the year 2020 and targets for the year 2030 (Kazak, van Hoof, & Szewrański, 2017). These are goals to be achieved by all of the EU-Member States (MS): an increase in energy efficiency by 20%, reduction of greenhouse gas emissions by 20% and increase of RES sources in energy consumption to 20%, including a 10% share of RES in the transport sector to 2020 (COM, 2008, 30). Individually, in UE countries, targets ranged from a level of 10% in Malta to 49% in Sweden. As a result of EU and national efforts, the share of RES in gross final energy consumption increased from 8,5 in 2004 to 17.5 % in 2017 in the EU-28. Progress towards national targets is analysed every two years in national renewable energy progress reports. Almost half of the EU countries have already achieved their 2020 targets for renewable energy (Figure 1 on next page) for 2017.

On 20 November 2016 the European Commission announced Winter Package "Clean energy for all Europeans" which aims at ensuring the European Union's transition to a more sustainable energy system. The Winter Package contains a total of eight new legislative initiatives that should allow the EU to reduce CO₂ emissions by 45% by 2030 compared to 1990 (Amantidis, 2019). It enhances the local prosumer power engineering (Sobolewski, 2017). New solutions were proposed to support RES and clean energy innovation, increase

energy efficiency, reform the European energy market and introduce new governance for the Energy Union.

FIGURE 1
Share of energy from renewable sources in 2017 and 2020 target in selected European countries (in % of gross final energy consumption), 2017



Source: Eurostat (access 24.07.2019, no data for 2018 and 2019).

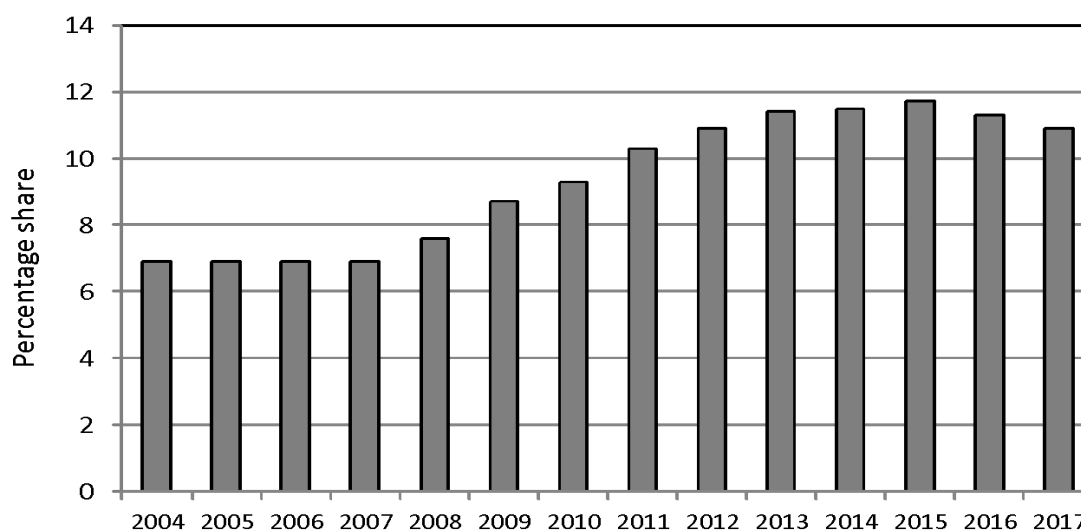
The current legislation could foster the development of RES. The EU proposed general support framework for RES electricity production and its use in heating and cooling. In 2014-2020 period the EU's Member States are using the Cohesion Policy and several funds to achieve their energy goals, for instance: European Structural and Investment Funds (ESI), Horizon 2020, LIFE+ and European Fund for Strategic Investments (EFSI), INTERREG (at the local level). Nevertheless, the European law does not contain specific provision for energy communities or cooperation at the local level (O'Brien, Monteiro, Gancheva, & Crook, 2018).

RENEWABLE ENERGY POLICY IN POLAND

In Poland the efforts to develop renewable sources of energy are related mainly to EU policy (Mastalska-Cetera, 2011; Kazak et al., 2017). After accession to EU in 2004, the percentage share of energy from renewable sources in gross final consumption of energy increased in years 2008-2015 (Figure 2), mainly due to the investments in wind farms and burning solid biofuels (Brzezińska-Rawa & Goździewicz-Biechońska, 2014). In 2010, the "National action plan in the field of energy from renewable sources" was adopted, which assumed the

achievement of 15.5% share of RES in gross final energy consumption in 2020. After the change of government in November 2015, almost no action was undertaken for the continuation of the previously prepared energy policy (Graczyk, 2017). Investments in onshore wind farms have been practically blocked in 2016. In the national Strategy for Responsible Development 2017-2020 (SRD, adopted in 2017), the role of renewable energy in the planned economic development of Poland was very small (Ugryn et al., 2018). In this document the Polish government planned only 3 projects related to renewable energy: development of geothermal and hydro-energy potential, creation of the energy clusters and the energy cooperatives. The new project of the Energy Policy of Poland for 2040 declares reaching a 21% share of renewable energy in the final energy consumption by 2030 (in transport 10% share in 2020 and 14% in 2030).

FIGURE 2
Percentage share of energy from renewable sources in gross final consumption of energy in Poland, 2004-2017



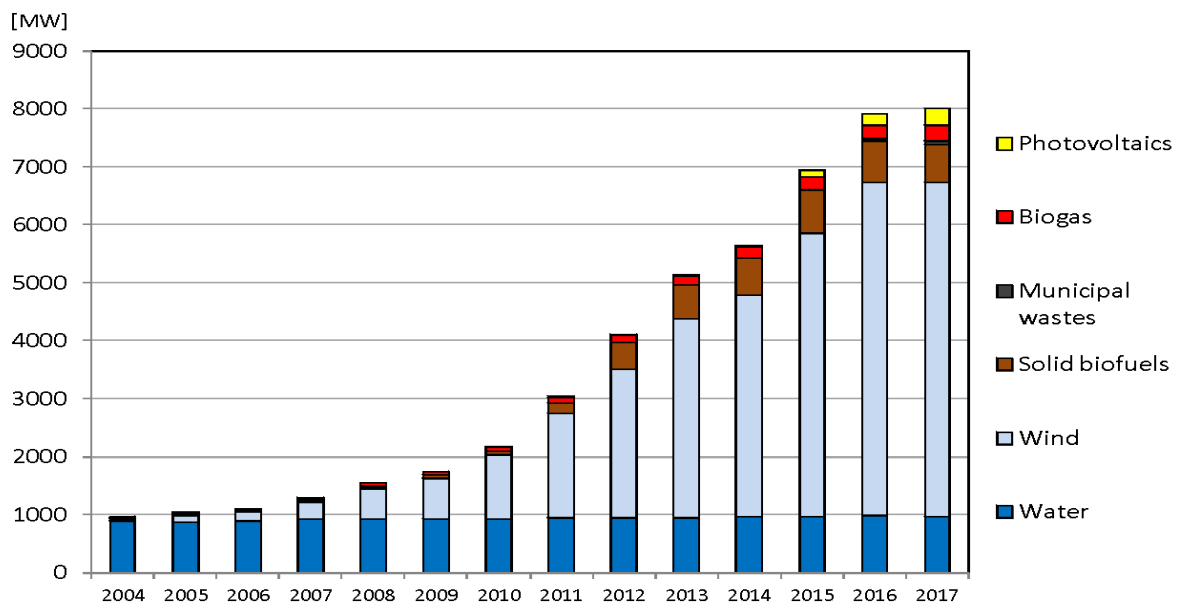
Source: Eurostat, <https://ec.europa.eu/eurostat/statistics-explained> (access 14.07.2019, no data for 2018).

The development of renewable energy sources in 2016-2019 has been significantly impeded (Figure 2 and 3), while the largest public investments were directed to the development of further energy coal units (for instance in Jaworzno, Koziernice, Ostrołęka, Opole, Turów). As a result, the percentage share of energy from renewable sources in gross final consumption of energy in Poland has decreased from 2015 (Figure 2).

The Operational Programme Infrastructure and Environment 2014-2020 is currently the main source of financing for actions related to the development of RES and improvement of energy efficiency (1.2 billion Euros budget). Furthermore, prosumer energy is mainly fostered

by the Regional Operational Programmes (supported by EU) and national funds. Support is provided in the form of a loan or a low-interest loan. It is believed that a significant role in reaching the RES target can be played by photovoltaic as well as offshore wind farms. Moreover, the rural areas can use financial support from a dedicated national Rural Development Programme for 2014-2020. Their main objective is the modernization of rural areas, including support for renewable energy installations as a part of their actions.

FIGURE 3
Capacities of power stations using renewable energy sources in Poland, 2004-2017 (MW)



Source: Main Statistic Bureau, Warsaw, Poland, www.stat.gov.pl (access 14.07.2019, no data for 2018).

The EU support is very important to increase the role of RES in Poland. Nearly 15% of the total EU budget allocation for Poland in years 2014-2020 was planned to achieve the goals related to mitigation and adaptation to climate change. The authorities of 16 existing regional governments allocated 10% of available funds for developing RES and counteracting climate change in Regional Operational Programs for local governments (Swianiewicz et al., 2018), however politicians, on national scale, relatively strongly support the coal energy and coal mining (in 2017 the total share of lignite and hard coal in electricity production in Poland was around 80%). The European comparisons (Hewitt et al., 2018) shows that in Poland local renewable energy initiatives seem to be established by the local authorities or the business sector, with a small rate of citizens' participation. The government favoured large scale incumbent providers who, for instance, burn biomass in coal-fired plants (Hewitt et al., 2018). In July 2019, the government proposed the national programme addressed to households

called *My electric current* ("Mój Prąd") only for photovoltaic installations. It is one of the few planned government programs for individual household in Poland. The second example is the possibility of creating the energy clusters - civil law agreements between local government, business sector, private entities or scientific units. The main goal of cooperation in energy clusters is to achieve better energy efficiency through the use of local energy sources.

RENEWABLE ENERGY AND CLIMATE CHANGE IN CLLD PARTNERSHIP STRATEGIES

Local Action Groups are the organizations financed mainly as a part of the European Union Rural Development Program 2014-2020 (RDP). This program takes into account such objectives as: innovation, combating climate change and environmental protection. Local Development Strategies created by LAGs, to obtain funding for any actions, theoretically must include measures in line with these objectives. An important priority of the RDP is also "Promoting resource efficiency and supporting the transition in the agricultural, food and forestry sectors to a low-carbon and climate-resilient economy". LAGs created their strategies mainly in the years 2014-2015. In the analysed research sample, the most frequently formulated objectives were related to the development of local entrepreneurship (99% of strategies), strengthening local human and social capital of residents (98%) and development of tourism and recreation (93%). Protection of environmental and natural resources or ecological infrastructure (and therefore targets related to combating climate change) appeared as a separate target only in 17% of strategies (Figure 4).

"Counteracting climate change" has been included in the main or in the specific objectives in 27% of the strategies. On the other hand, specific measures (operations) taking into account analysed issue appeared in 32% of the analysed documents, and thus slightly more often than in the main objectives. The planned actions, taking into account analysed issues, were most often associated with training as a part of the development of human capital and sustainable entrepreneurship. "Counteracting climate change" was not usually formulated as a separate goal. In total (logical sum with "OR" operation) the issue of "counteracting climate change" appeared in the objectives, actions or product indicators only in 56% of LAGs. Few tasks were planned to be undertaken in the field of RES. Only 13% of LAGs have planned training on this subject for residents, and specific investments in less than 7% of these organizations (logical sum 17%). No initiatives were planned, such as local communities renewable energy cooperatives or clusters, as defined by Hunkin and Krell (2018). For comparison, the issue of the "cultural heritage protection" appeared as the main

objective in 69% of the analysed strategies, and actions related to this subject were to be implemented in almost all LAGs surveyed.

FIGURE 4
The percentage share of analysed organizations showing a given subject in main aims in Local Development Strategies (sample 162 from 279 LAGs)



Source: The authors' own research.

DISCUSSION AND CONCLUSIONS

Analysis of strategies prepared by local communities shows that at the time of their creation in years 2014-2015, the issues of RES development and counteracting climate change were not significant for local stakeholders, as relatively few LAGs considered these tasks as important. In 44% of LAGs, such issues did not appear at all in the objectives and planned actions. This shows a relatively low ecological awareness of the society, because with voluntary, independent planning of funds spending, goals related to combating climate change appeared rarely. Traditional actions such as the development of entrepreneurship, the development of social and human capital or protection of local cultural heritage were much more popular. This may also partly explain the small determination of Polish politicians and governing authorities to reduce energy based on the burning of fossil fuels. In the authors' opinion, the relatively weak local interest in this subject in rural areas indirectly influences domestic energy policy. While in some Western European countries political parties and organisations insisting on the development of renewable energy achieve relatively high popularity and results in the elections, in Poland they are of marginal importance. In

comparison with many Western European countries (Li et al., 2013), support for renewable prosumer energy and community-led small renewable energy sources has been much weaker in Poland so far. The dominant position of large state-owned enterprises on the energy market (strongly influenced by ruling politicians), who are not interested in losing the sales market due to the development of prosumer energy, probably has a significant impact on this fact. Changing this unfavourable situation probably requires strong support for social education in the field of modern electricity and heat generating systems from renewable sources, as well as the creation of special financial support programs for local communities, focused exclusively on the development of renewable heat and electricity. National, regional and local (municipal) programs of this type, of course, operate in Poland (Ptak, 2017), but till 2015 they have probably offered too little support for RES to become the focus of local rural communities' interest.

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Sustainable Development in Peripheral Areas in Turkey and Japan – Governance and ‘Social Capital?’

Tomoko Oikawa¹

ABSTRACT: In 1987 the Commission on Environment and Development (WCED) published ‘Our Common Future’, which is the formulation of sustainable development. It has come to represent mainstream thinking of sustainable development. The paper focuses on the governance of sustainable development, referring to the case studies in Turkey and Japan. The main issue here is what has been done ever since and what could be done, in peripheral areas in Japan and in Turkey, respectively. The governance has played a major role for sustainable development using and combining different styles depending on the case. In fact, an idea of ‘new’ governance has emerged, which could facilitate sustainable development more efficiently. An exemplified case study in a small town in Japan may show a type of new governance, new environmental policy instruments, which has led the town to the epitome of sustainable development. At the same time, it must be stressed a pivotal importance to find out potential resources - leadership and natural resources - and ‘social capital’ in the development. In contrast, a small town in Turkey is seeking for sustainable development at present. In this case what is required at first is that what kind of town development the local people have as a vision. With a brief field survey in this town, my tentative conclusions are: the idea of ‘new’ governance should be realized in the following ways. Local people know the best what and how they want for development of their town, and why, which is pivotal and should be discussed in depth. This will hit the pivot of sustainable development project, which should show a prescient vision of their town. For these, dialogue between the municipality, community, business groups and local people are essential. This also may produce capable personnel to be leadership.

Keywords: ‘new’ governance, local community, vision, social capital, dialogue, leadership, municipality.

JEL: A14, D02, O13, Q02.

INTRODUCTION

This paper focuses on peripheral areas at the national level to explore the issues concerning what should be or has been done so far for sustainable development (hereafter SD) in the local and small town. Here the paper will take up in the cases of local town in Turkey and Japan. A main concern is to explore about the linkage between the governance, social capital and SD. These two countries are at the different phases in terms of SD respectively. Generally speaking, SD in Japan has reached at an advanced stage in relation to social and economic circumstances. Turkey, so far as a case study of small town concerned, seems at the beginning stage. This paper shows an exemplified case study, which will tell a successful sustainable development in a small town in Japan. While this case study could indicate a kind of direction for sustainable development of local town, it is acknowledged that the case is just one example. This aspect may be applied for the small town in Turkey, where local people appear

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eager and spirited for economic and social development. The circumstances over there is conditioned quite differently from the case in Japan.

In the above case studies, it has been recognized the importance of local governance, which could play a decisive role with regard to prescience and leadership, and management of resources. While case studies show different stories, eventually it is common that any kind of successful SD is supported by local governance, i.e. municipality, institutions, with local community or local business people.

In general, it is argued that governance and social capital are supplementary each other. When the case studies are examined, however, one issue arises: whether the concept and significance of social capital are realized in Japan and Turkey, taking their social and cultural contexts into consideration respectively. It could be quite important to consider this issue when discussing the linkage of governance and social capital.

The paper is structured as follows:

1. Literature review – governance and social capital.
2. Exemplified case study of sustainable development in Japan.
3. Field work for sustainable development in a town in Turkey.
4. Discussion and conclusion.

LITERATURE REVIEW

Sustainable development

Sustainable development refers to three dimensions, the ecology, economy and society. There is very little agreement on what sustainable development means and even less agreement what is required to promote a sustainable future (Baker, 2008; 7). There is an aspect, for example, that SD is an essentially contested political concept (Lafferty, 1995). Based on the authoritative Brundtland formulation (WECD 1987), sustainable development means the long-term transformation of basic aspects of the present industrial economic system. Promoting sustainable development is about the construction of a new development paradigm, framed within the ecological limits of the planet (Baker, 2016; 61). Its desirable characteristics change over time, across space and location and within different social, political, cultural and historical context (Baker, 2016; 7). To promote sustainable development, governance plays a central role in combining different styles, new governance, *i.e.* markets, hierarchies and networks.

New governance (Baker, 2008)

Conceptualized by EU as a system of multi-level governance, new governance is distinguished from the established features, by including public/private partnerships and policy communities in policy making at various institutional levels. In particular, it includes not only political institutions but also other actors involved in such network governance. Theoretically, this 'new' governance is divided into four parts; *multi-level governance, networks and public/private partnerships, participation, new environmental policy instruments*. It is stressed the particular importance of social capital.

Social capital

This is of importance related to governance. It involves an issue whether social capital is applicable in the case of Japan or Turkey. Basically 'capital' implies an invested sum of money to pursue profit in return. In the 1960s Theodore Schultz (1961) and then by Becker (1964) developed and expanded the idea of capital to cover people and their capacities. Various capitals were largely thought of in strictly economic terms; their value was measurable, their worth could be added up and compared, the relationship between inputs and outputs was a direct one, and any changes in value could be accounted for in terms of a common currency (Field, 2003). Then, social scientists developed 'social capital' into a social science concept. Since the 1980s the influential three leading social scientists, Pierre Bourdieu, James Coleman and Robert Putnam developed the concept.

At present 'social capital' is explained as follows: Relationships matter. By making connections with one another, and keeping them going over time, people are able to work together to achieve things that they either could not achieve by themselves. People connect through a series of networks and they tend to share common values with other members of these network; to the extent that these networks constitute a resource, they can be seen as forming a kind of capital (Field, 2003).

In historical and cultural contexts, people's social ties or relationships have mattered greatly. Emile Durkheim in nineteenth-century showed a contrast between the 'mechanical solidarity' of pre-modern societies on the basis of similarities in status and routines, and the 'organic solidarity' of the societies, having experienced the industrial revolution, on the basis of mutual advantage. This may show that the origin of the idea of social capital could be traced back to the nineteenth-century, the historical process of how the concept and significance of people's social ties have evolved into the present social capital. How the idea of people's social ties is formulated appears the reflection of socio-economic transformation

in their historical contexts.

Such transforming process of people's social ties or relationships is the reflection of western historical, cultural experiences. Japan did not experience historically a western way of socio-economic development and cultural process. Turkey has developed socio-economic and cultural process in the different historical passage.

Whether the idea of social capital is applied for sustainable development with 'new governance' in the case of Japan and Turkey is an important issue, which eventually involves another issue whether principles of values in Japan or Turkey are distinguished from the western counterparts as the base of people's social ties.

EXEMPLIFIED CASE STUDY OF SUSTAINABLE DEVELOPMENT IN JAPAN.

Shimokawa-cho 'sustainable environment future city' in Hokkaido

It is municipality leading revitalization and development. Resource is 'hot water', which is originated from the forest management in Shimokawa-cho.

The town of Shimokawa is located in the central northern part of Hokkaido, and has a population of about 3,300 in an area of 644.2 square kilometers -- almost same as the total area of Tokyo's 23 wards. With about 90 percent of it forested, the town's main industries are forestry and agriculture. Situated in a heavy snowfall area, where the temperature drops to as low as minus 30 degrees Celsius in winter. Since a number of decades ago, Shimokawa-cho has had a lot of problems in terms of aging and decreasing population, marginalizing hamlets, less shopping access, less access to G.P, declining community, etc.

How Shimokawa-cho has successfully achieved forest management? The answer is its historical, a long-term strategy. In 1953, 'circulation forest management' method started. Out of the town-owned forest 4,583ha, 2,985ha has been used for 'circulation forest management' as man-made forest. The 50ha is cut annually and after immediately newly planted annually. Forest growing takes 60 years. Then planting 50ha×growing 60years = 3,000ha. The 'circulation forest management method' is working out and this circulation of 'cutting • planting • growing' for 60 years has become established. The effect was massive:

Job creation, skilled elderly people required, local woodcutting related enterprise needed. As a result, it resulted into stable supply and circulation of wood. Production goods [wood – woody biomass fuel] produce 'consumption goods [hot water]', which are diverted into 'production goods [hot spring, regional heating system, shiitake (mushroom) production]'. Industrialisation created production and consumption goods simultaneously, and

underpins a long-term durability of forest management project. In this context, Shimokawa-cho started town planning as ‘local autonomy’. Target (D) was environment and town planning for low carbon society. Woody biomass production was developed further.

Otherwise local restaurant operation, community business, shopping support, watching service of elderly people, snow-removal service, mobile-sales are serviced.

In recent years, an increasing number of people have relocated there from urban areas, putting a brake on depopulation.

Concluding remarks

This case study shows the importance of a prescient vision for town development. It also shows the power of municipality and leadership. What specific agents have been actually involved in local development in Japan is surveyed. It is based on 193 case studies (Kaneko, 2018). According to this survey, municipality leading 32.1%, community 30.1%, public service corporation 19.2%, business company 18.7%.

DEMRE – A SMALL TOWN IN TURKEY – AND A RESEARCH PATH TO A DEVELOPMENT PROJECT FOR DEMRE

Demre

- I stayed in Demre 6 days, May in 2018:

A brief collection of information below is obtained by talking with the director of the education centre, staff in the municipality, and a keynote speaker for the conference. I visited the municipality and interviewed the village manager to obtain data and statistics as much as possible.

- Main employees in Demre in 2018:

Agriculture population	15,000
Tourism	2,000 (nearly 700,000 tourists/year)
Agri-food business	Not existed

- Population in Demre is not really recognised (Government regulation has changed each year):

2007	15,762 (8 neighbourhood)
2015	(plus 9 neighbourhood)
2017	26,200
2018	25,918 (17 neighbourhood)

Real population is not grasped; people who moved out to big cities, Istanbul in particular, but remain registered in Demre municipality).

- The people I talked were eager for revitalization and development of Demre. Some were for tourism and other rather for economic development, i.e. manufacturing because the area is totally agricultural.
- In the suburbs in Demre, 30 to 40 minutes by car, there is a beautiful beach and cultural heritage. Tourists may visit these area directly from other counties.
- My observation and impression in Demre town: The town is not always busy and lively. However, a lot of children are playing in the central public square. I met a university student and talked with him. He was happy securing a position in the near-by bank. There is no postbox and I asked some local people in the street where it is. They said neither post box nor post office in this town, so you have to travel to a neighboring town to post. I asked at different spots in town. Two days after I just said jokingly to the owner of the carpet shop and his friend that you have no post office here in this town. Then, the one said we have post office over there pointing the direction. It was there, in the ground floor in the quite a new look building is a quite a new look post office.

My research path to a project for Demre development

We need data about Demre much more. Therefore this is quite a current idea. As remarked in the previous section, Demre needs a prescient vision as a town in future. Demre needs the core industry based on agriculture. As a keynote speaker demonstrated, agri-food business can be a possibility, with tourism.

The idea of ‘new’ governance should be realized in the following ways. Local people know the best what and how they want for development of their town, and **why**, which is pivotal and should be discussed in depth. This will hit the pivot of sustainable development project, which should show a prescient vision of their town. For these, dialogue between the municipality, community, business groups and local people are essential. This also may produce capable personnel to be leadership.

DISCUSSION AND CONCLUSION

We try to find out how to effectively combine local governance and local community force. ‘Social capital’ may not work out as a universal concept but as a western one. In the East people’s social ties or relationships in the local community which is based on mutual aid and trust should work with the idea of ‘new’ governance for local SD. Local governance and local community force are the pivotal component for SD. However, empowering SD effectively is in the hands of local community’s eagerness and spirit backed by a prescient vision of their town.

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Putting the “Local” in Economic Development: Social and Solidarity Economy in Eskişehir/Turkey

Rana Eşkinat¹

ABSTRACT: Social and Solidarity Economy (SSE) is fundamentally about reasserting social control over the economy by giving primacy to social and often environmental objectives above profits, emphasizing the place of ethics in economic activity and rethinking economic practice in terms of democratic self-management and active citizenship. It is important to note that SSE can play an important role in addressing various limitations of the Millennium Development Goals (MDGs) that the Sustainable Development Goals (SDGs) seek to correct. A focus on SSE necessarily addresses the SDG aim to ‘leave no one behind’ by redirecting attention to local territories and vulnerable groups.

From the 1980s onwards, the idea that local communities can serve their own needs through social and solidarity economy organizations has gained momentum globally. In many countries, organizations spearheaded by citizens have emerged as an important player in addressing the needs of local communities. In Europe, they have developed to produce welfare services and integrate disadvantaged people to work; in developing countries they have emerged in various fields such as agriculture, finance, the construction of infrastructure, and the supply of community services thanks to the mobilization of local communities or the support of external actors.

Eskişehir, endowed with high human, social and institutional capacity is one of the few regions in Turkey who has been proactive in crafting an enabling local policy environment for SSE and local sustainable development.

The aim of this study is to contribute to raising the visibility of SSE by examining the current situation and potentials of SSE and related organizations in Eskişehir within the context of local sustainable development.

Keywords: local development of Eskişehir, social economy, solidarity economy, sustainable development.

JEL: Q560, O15, R11.

INTRODUCTION

Many countries are lagging behind with respect to MDGs. The post 2015 development agenda (Agenda 2030) promises to take on the MDG’s unfinished business, while adding objectives related to: inclusion; sustainability; employment; growth; governance; cooperation.

A warming planet has become a threat to sustainable development. Global awareness of the nature and scale of modern slavery is growing. Negative impacts of rising inequalities and the limits of the MDGs process in addressing multiple dimensions of poverty and in achieving several of the goals emphasized the need for a more profound transformation in thinking and policy making.

1980s and 1990s were periods when social development put on the back burner. Things began to change after the mid-1990s. The emphasis on integration of economic, social and environmental aspects opened up a space to highlight the integrative potential of SSE.

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The Rio+20 process prepared the ground for United Nations Conference on Sustainable development in 2012. This conference, emphasized the need for a more integrated approach to development. Urgent action to mainstream sustainable development at all levels, integrating economic, social, and environmental aspects and recognizing their linkages highlighted as a result of the discussions.

Local development initiatives, which depict the transformation of a defined territory – be it a neighbourhood, a municipality or a set of municipalities – require engagement, active involvement and social participation. Below we will see procedural aspects for promotion of local development and encouragement of inclusion in productive activities by the intermediary of the solidarity economy. Sections below, involve the theoretical, conceptual and practical issues related to SSE and its relevance to Agenda 2030 and local development. The last section examines the current situation and potentials of SSE and related organizations in Eskişehir within the context of local sustainable development.

SOCIAL AND SOLIDARITY ECONOMY

SSE was the terrain of economic activity where organizations, enterprises, networks and movements explicitly and simultaneously addressed economic, social, environmental, rights-based and participatory dimensions of development objectives highlighted in the Rio+20 process.

The SSE has positioned itself as an alternative economy and a socio-economic space between the capitalist (private) sector and the public sector. This umbrella term is used to refer to forms of economic activity that prioritize social and often environmental objectives and involve ordinary people, producers, workers, consumers and citizens, to play an active role in shaping various dimensions of their lives, with the main purpose of meeting the needs and objectives of their members rather than remunerating capitalist investors (maximize profits) Utting 2014; Laville, 2010). Above all SSE and related organizations being an alternative to the traditional economy are distinguished by their principles and values. Social and Solidarity Economy is an ethical and values-based approach to economic development that prioritizes the welfare of people and planet over profits and blind growth (RIPES, 2013).

SSE is a holistic approach. SSE organizations, enterprises and networks simultaneously pursue some combination of economic, social, environmental and emancipatory objectives. Economic sphere involves generation of job and income. Social sphere offers comprehensive social protection and redistribution, strengthening of territorial ties. Environmental objective supports economic activity which enhances rather than depletes the environment.

Emancipatory sphere refers both to economic and political aspects by supporting voice and representation through self-organization, participatory governance and collective action at multiple levels.

The field of SSE typically includes diverse forms of cooperatives; mutual health and insurance associations; certain types of foundation and service-delivery NGO; microfinance or solidarity finance groups; self-help groups; community-based organizations; and new forms of social enterprise producing goods and services that address unmet needs, mobilizing unused resources, engaging in collective provisioning and managing common pool resources (Utting, 2013). While this movement comprises different organizational forms and perspectives on development priorities, its common features can be listed as follows (These features are in accordance with the approach of “High Level Panel on the sustainable development goals):

- Leaving no one behind
- Putting sustainable development at the core
- Employment-centered economic transformation
- Participation and good governance
- Global partnership that upholds principles of “universality, equity, sustainability, solidarity, human rights, the right to development and responsibilities shared in accordance with capabilities”

Various studies on SSE, illustrate the potential of SSE through the lens of eight areas which are central to the challenge of socially sustainable development in the early 21st Century. These include:

- Transition from informal economy to decent work
- Greening of economy and society
- Local economic development
- Sustainable cities
- Women’s well-being and empowerment
- Food security and smallholder empowerment
- Universal health coverage
- Transformative finance

The main principles of the SSE are: placing service to members or to the community before profit; autonomous management; a democratic decision-making process; and the primacy of people and work over capital in the distribution of revenues (Defourny and Develtere 1999).

SSE accepts the reality of the capitalist system and its core institutions or ‘rules of the game’; however, it is primarily about expanding the economic space where people-centered organizations and enterprises can operate (Utting, 2014). One important contribution to sustainable human development is that some SSE organizations are designed to fight poverty, marginalization and social exclusion.

However, SSE is not only about the poor; solidarity economy based enterprises have the ability to enter strongly into dialogue with dynamics of endogenous development, one that is self-managing and solidaristic making the local actors the prime protagonists responsible for local development and taking into account and expanding local capacities (ILO, 2014, p: 122).

In the following section, the paper will focus on the local economic development between eight areas which are central to the challenge of socially sustainable development and examine the importance of SSE in Local development.

LINKING SOCIAL AND SOLIDARITY ECONOMY AND LOCAL ECONOMIC DEVELOPMENT

The notion of local economic development relates to a participatory development process that involves private, civil society and public stakeholders engaging in strategies to create jobs, income and productive capacity by basing an activity in a specific location and making use of local resources (UN-Inter Agency Task Force on SSE, 2014: p, 5). Local economic development and SSE are seen as complementary tools, both of which strive for participatory governance, partnership, empowerment and social and economic inclusion (II. World Forum of Local Economic Forum, 2013).

The imperative of promoting local economic development is evident in contexts where much of the locally produced surplus is siphoned away from the local economy towards lead corporations in global value chains, tax havens, speculative investment and cities (UN-Inter Agency Task Force on SSE, 2014: p, 5). This process not only affects local income but also the potential for reinvesting surpluses in local social and economic infrastructure.

The development of SSE holds significant promise as a path for decent work and sustainability at local level. Compared with traditional approaches, SSE provides a new vision of local development by widening the structure of a local economy and labour market and addressing unmet needs with various goods and services. It broadens the local development process by taking into consideration its various dimensions including that of building trust and social cohesion.

Apart from employment generation and resource mobilization SSE is also important for community-based risk management. While they cannot be a substitute for public coverage of social security, they can protect against the adverse effects of different types of risk.

SSE can provide a useful mechanism for linking the needs of territories with local and national development trajectories and facilitating aspects of good governance associated with policy dialogue involving citizens, local officials and other policymakers.

Local governments, and processes such as decentralization, can play a key role in providing the enabling environment needed for local economic development, variously through health, education and other areas of social policy; technical support services; building-up of infrastructure; public procurement; and facilitation of farmers' markets. In several Latin American and European countries such enabling roles are particularly apparent. But as in the national policy-making arena, it is essential that SSE actors are organized and capable of participating effectively in policy dialogue and decision-making processes. Democratic decision-making and adherence to social and ecological criteria provides SSE leaders with a degree of legitimacy for participating in local governance and the co-construction of public policies (UN-Inter Agency Task Force on SSE, 2014: p, 6).

Local development in practice: Transformation of the reality of a territory

Transforming the reality of the most needy localities in underdeveloped countries based on the role as protagonist, on the engagement and leadership of the various actors of a given territory as a strategy – is one of the most promising alternatives for ensuring effective and sustainable transformations (Augusto, 2014, p: 98).

According to Augusto (2014, p: 98), development is carried out with:

- *people and for people, when there is singularity of interests and participative engagement;*
- *cooperation, based on the inclusion of the people and on the institution of a shared management model to be used by various local actors integrated into one or various shared aims;*
- *entrepreneurship, coming out of the behaviour of each citizen who wishes to carry out transformations, changes and improvements, be he/she a businessperson, a cooperative member in a solidarity-based enterprise, a public manager or a representative of civil society;*
- *knowledge, management and innovation, which once they are aggregated make possible more assertive decisions and concrete actions to optimize the assets of a*

locality;

- *entrepreneurial education, to make possible new knowledge and know-how, and to awaken a more active and less dependent behaviour;*
- *small businesses, as an inclusive alternative that allows generation of income and jobs with dignity, strengthening the local economy;*
- *public policies that feed into concrete paths for creating favourable environments and for fostering democracy and citizenship.*

Accordingly, development happens in the localities or defined territories where people simply aspire to a better life. To that end, it is important to acknowledge the leadership role in this process, taking into consideration the capacity to build a vision of the future, to influence people and to act effectively. Those traits are also intrinsically related to the solidarity economy, which starting from a spirit of cooperation and collaboration, gets consolidated as an inclusive alternative for thousands of people.

Development extrapolates the impacts generated by the economic growth of a territory. It goes beyond the economic wealth produced, and involves social engagement as a path for obtaining advantages from the assets, potentials and special attributes of a locality, based on the building of a participative action plan and of a governance model based on shared management. In practice it is the transformation of a reality based on the construction and achievement of the actions delineated in a vision for the future, which will certainly provide better living conditions for the population of a defined territory.

The processes of territorial economic development are initiated based on cooperation between local leaders representing governments, enterprises, development agencies, non-governmental organizations, educational and research bodies and representatives of civil society, amongst other institutions, in favour of one or various collective interests. Generally speaking, they are focused on transformation of the reality of a territory that has been previously defined based on the criteria of spatial delineation.

Augusto, summarizes the steps of the transformation of the reality of a territory as follows (2014, pp. 99-100):

“The first step for inducing a process of local development should be initiated by the local governance organization, where the active role of the leaders and the capacity to implement initiatives based on collective interests are essential, so that they may result in better living conditions for the people living in that territory. Such a process involves the identification of the principal actors and the building of a management structure, whether formal – represented by a forum, committee, consortium, agency or other representative structures – or as well informal – composed of a group of people who display common and convergent interests. Doing a reconnaissance of the assets of the territory, as well as its main needs and demands, is the second step to be consolidated following the stage of structuring of local governance. Identifying

the economic regions, the business concentrations, productive arrangements, clusters and business networks of a territory, implies having available qualified knowledge on the region, which facilitates building a participative action plan based on the local priorities. It is clear that other aspects should also be taken into consideration. It is not only the economic impediments that hold back or contribute to the development of a territory. Development includes economic growth, but not just that. There are also elements connected directly to the quality of life of the people, involving basic aspects for living well, like: health, education, culture, environment, transport and others.

Following the stage of construction of the local identity, based on the assessments, studies and research efforts carried out, it's necessary to define a plan of action built based on collaborative and participative processes involving the various local actors. That process allows identification of what is available, in terms of the labour force and resources, as well as being conscious of what ought to be complemented or raised in order to ensure execution of the actions and tasks of the plan with success and less risk”.

The mobilization of people by means of behaviour as a protagonist is the solution for that process to occur naturally.

In addition to initiatives such as that one, which reflect the desire of society to live in proper conditions – which often aren't provided by the legitimate and responsible bodies – there is also a great effort that should be directed to the territory's production chains. This involves developing the abilities of the managers, entrepreneurs and businesspersons through a process of cooperation and systemic competitiveness, so as to strengthen the links and the local economic arenas. Actions such as those make possible business networks, strategic alliances, inclusion in productive activities, retention of economic resources in the locality (formation of local savings), expansion of job positions, diversification of the supply of products and services and broadening of technological and innovative bases, amongst others. Those factors are extremely relevant for the development of a locality. Behind that whole arena there is a great need to build a culture based on the principles of leadership, cooperation and solidarity.

Viewed from that perspective, in the items to follow Eskişehir's territorial transformation, we will see aspects related to the capacities coming out of the relationships between people, emphasizing the role of human and social capital in favour of an integrated and sustainable development.

TRANSFORMATION OF ESKİŞEHİR

There are 81 provinces in Turkey. Among the 81 provinces, thirty are designated metropolitan municipalities. Eskişehir Metropolitan Municipality is a leading municipality with its great improvements since 1999.

Eskişehir is an old, culturally developed province of Turkey. It has a population of 844,842. Its urban population is 734,837. Eskişehir is Turkey's model city in terms of being Anatolia's Capital of Culture and Art, having an eco and city-friendly transportation system,

owning a vivid and clean environment, having a Social municipal understanding, having sensitivity of children's rights, children council, women counseling and solidarity, gender budget issues.

Excavations carried out in Şarhöyük, thought to be the first area of settlement in the city, prove that Eskişehir has a history dating back to 3000 BC or earlier. It is possible to take this provenance even further back if one takes into account the findings from other mounds around it.

The first civilisation that left significant marks on Eskişehir is the Phrygians, who inhabited this region during the 9th century BC. Eskişehir was founded by Frigs at the banks of the Porsuk River. The most significant traces of them can be found in Yazılıkaya, the Phrygians' religious centre where many monuments and tombs can be seen.

Eskişehir is also very important in the Ottoman history as its Karacahisar Castle is the first conquest of the Ottomans.

Almost all of Eskişehir's counties are settlements which are rich in history and culture. Among these is Mihaliççık where Yunus Emre, the pioneer of Turkish poetry, a minstrel and philosopher was born and the Yunus Emre Social Complex can be found there today. Sivrihisar, a significant settlement during the Roman and Byzantine periods, is famous for artworks dating from the time of the Seljuk and Ottoman empires. Besides Akşehir in Konya, Sivrihisar is also believed to be the birthplace of Nasreddin Hodja, a world-famous philosopher. The county of Seyitgazi is well-known for the tomb of Seyyid Battal Gazi, a saintly figure and warrior.

Located in central Eskişehir is Odunpazarı, the area where the first city is thought to have been established. It has old wooden houses which are hundreds of years old, many of which have been restored recently making the area a popular tourist destination. Some of the buildings are now in use as boutique hotels, restaurants and museums and are the most marvellous examples of domestic architecture of the Ottoman period and a must-see for those who want to experience Odunpazarı.

Another important aspect of Odunpazarı is the Kurşunlu Mosque Complex which includes a mosque, şadırvan (fountain for ritual ablutions), public soup kitchen, primary school, madrasah, rest home and two caravansaries – all of which date back to the 16th century. The rest home section of the complex displays meerschaum (lületaşı) artefacts, a stone which is strongly associated with Eskişehir. Exported as raw material during the days of the Ottoman Empire, it is now used for producing exquisite pipes, jewel boxes and jewellery. The Meerschaum Museum, located in the rest home where you can relish the richness of

Eskişehir and the skills of meerschaum masters, is one of a kind in the world. After visiting the museum, you can buy pipes, jewellery and other ornaments made of meerschaum at the Atlihan Handicrafts Bazaar.

Eskişehir is also famous by hot spring waters and hammams or Turkish baths some of which date back to the time of the Ottomans and cures various diseases. A popular spot in Eskişehir is the Porsuk River and environs, where you can have a tour of the river by boat or relax in one of the cafes alongside the river. The Science Arts and Culture Park, with a lake where water sports and other activities can be performed, is especially popular with children and is another recommended venue to visit. Among the attractions that draw visitors are also Wax Museum, Contemporary Glassware Museum, Archaeological Museum, Aviation Museum and Independence Museum which give the visitors the chance to witness the cultural and historical diversity of the city.

Eskişehir is a university town that's sometimes called the "Venice of Turkey" for the Porsuk River that runs through the city center. Eskişehir has three universities, Eskişehir Osmangazi University, Anadolu University (which is the largest university in Turkey and which has some branch offices in Europe) and Eskişehir Technical University. As an important college town, Eskişehir has three large universities with more than 50,000 students who contribute hugely to the social and cultural dynamism of the city. The youth of the city gives a feeling of vibrancy found nowhere else. Given its intellectual, young atmosphere, the arts and culture scene in the city is excellent. There are many museums, exhibitions, concerts and more - there's always something going on. The city hosts many cultural and artistic events every year. The Eskişehir Festival showcases hundreds of performers and a wide range of theatre performances and concerts.

University Research Laboratory (ÜNİAR) announced the results of the 'Student-Friendly University Cities 2019' survey on July 20, 2019. University Students Satisfaction Survey conducted by approximately 36 thousand students from public and private universities of Turkey as part of the research. Cities were evaluated according to criteria such as security, tradesman's attitude, transportation, living expenses, livability, health, social and cultural opportunities. Eskişehir, which was previously in the first place in the Student-Friendly University Cities Survey, maintained its position in 2019 as well.

Besides the cultural riches, Eskişehir is planning to become a tourism attraction center with its natural riches, food varieties and shopping possibilities since 1999. The city is located at a major crossroad in Turkey. There are high speed trains that run frequently between Ankara and Istanbul and pass through Eskişehir, so it's relatively easy to get there from either

major city. In 2013, Eskişehir was the Cultural Capital of the Turkish World and received the title of UNESCO Capital of Intangible Cultural Heritage.

One of the biggest concerns for potential tourists is whether or not the place they've chosen to visit will be safe. This concern has only grown in recent years and travel safety is important. Because of this, several institutions put together a list of cities where you can focus on the culture, history, fun, and of course, food. One of these institutions is CEO-World Magazine. Using data from Numbeo, CEO-World Magazine ranked cities based on how they scored from a scale of 1 to 100, 100 being the safest. The UAE capital, Abu Dhabi has been ranked the safest city in the world, according to the statistical analysis (2019) by the CEOWORLD magazine, with Doha (Qatar) close behind in 2nd place. The remaining eight safest cities in the world were Quebec City, Taipei, Munich, Dubai, Zurich, Bern, Eskişehir, and Hong Kong, in that order. The safety index ranked 334 cities.

As a result, Eskişehir is between top ten safe cities in the world according to safety researches. Eskişehir, is a college town that's become even more safe in recent years and holds a great mix of modern, traditional, and ancient Turkish life.

The importance of transformational leadership in transformation of Eskişehir

Local development does not happen based on individual initiatives, but rather through the linkage between the various local actors. There should be a sense of a whole, of a collective, where the synergy of the people represents the alchemy desired in order that a process of transformation of a locality in fact take place.

It is important to give prominence to the role as protagonist of the local, and to the culture of cooperation for creating favourable conditions for the involvement and engagement of representatives and leaders from the governments, enterprises, professional associations, educational and research bodies, science, innovation and technology institutes, civil society and others. Partnerships between the various bodies and institutions contribute to attaining the desired result with the appropriate human, material and economic resources. Building alliances is indeed strategic and relevant for ensuring the empowerment of all of the local entities involved, as well as of society at large.

It should be possible to make explicit development of the abilities and availabilities of supply of solutions from each actor at the time of building of the participative planning and of setting up the shared management model. This aim will contribute to a better classification of needs and a better use and application of resources. The occasion of linkage between the local bodies and leaders permits identification of a local (territorial) identity.

Based on the building of a participative plan to define the current situation and identify the real demands and needs, a vision of the future is defined that puts forward a series of initiatives, projects, actions and complementary tasks that result in routes for transforming, changing or altering the present reality.

In a general way, initiatives such as this one are focused basically on the improvement in quality of life of the people of a particular locality. The central aim of a process of local development is grounded in the way of living of the people, with better conditions, with equal opportunities for all, and mainly, with the promotion of equality.

Accordingly, local development requires as an essential premise, the direct participation of the people living there. It is not a paternalistic process where the state decides exclusively the paths for the development of a territory, but rather a democratic process where solutions are built in two-way fashion, both “from the bottom up” as well as “from the top down”.

Transformation only results from the actions and reactions of those involved in the process. It is the fruit, therefore, of the active role and involvement of one or various individuals on behalf of the collectivity.

One of the most important arenas of a process of local development is grounded in human capital. The individual is the key element. His/her knowledge should be improved in the most skilled and diversified way possible, with it being important to put emphasis on new knowledge.

As such, it is useful to highlight the role of the community leaders – be they governmental, business or community – that act as “engines” to ensure the implementation and sustainability of local development initiatives. Through their (management and/or behavioural) capacities, they are able to act as a central thrust in the collective and participative process of construction, in order to define the tracks that are to be followed.

As we told before, transforming the reality of the localities in countries based on the role as protagonist, on the engagement and leadership of the various actors of a given territory as a strategy – is one of the most promising alternatives for ensuring effective and sustainable transformations. Prof Dr. Yılmaz Büyükerşen is a good example of transformative leadership. After his election Eskişehir Mayor since 1999, he has materialized a wide range of projects that transformed the province’s appearance. Following the positive changes he made for the citizen’s living standards, social life and infrastructural services, he elected five times as a mayor of Eskişehir since 1999 and won the last local elections of March 31, 2019 again.

Transformational, charismatic and visionary are the words that have been popularized as the prescription for successful leadership. All these words of successful leadership can be

used to tell the personality of Prof. Dr. Yılmaz Büyükerşen, metropolitan city mayor of Eskişehir. His ability to comprehend the emotions of his followers and his will to communicate to their feelings helped endear him to his staff. Creating a vision and formulating a strategy to reach it, then (backed with the requisite resources) being capable of communicating this vision to an empowered workforce is the total summary of Prof. Yılmaz Büyükerşen's path to leadership success (Okoth, 2018, p:133).

Between 1982 and 1992, Prof.Dr. Yılmaz Büyükerşen was the chancellor of Anadolu university. After the decision was made to found an open university, Anadolu university was the first in 1981 to open an Open and Distance Learning Faculty in 1981, and Büyükerşen was at the core of this pioneer movement which culminated, in the same year, to a collaboration with TRT channel for radio classes.

Büyükerşen is associated with many firsts in Turkey and the most popular being the Open and Distance Education system. Okoth told that, Büyükerşen had written his thoughts about the distance learning program for the first time in 1973 in a newspaper article:

This was even before he became the chancellor. He adopted the Open and distance Education structure from his experience in the UK and indigenized it to fit the Turkish education system. This was the result of years of research into what could work in the local system and not just a mirror image of the English system. He didn't just bring the future to the present but ensured that it would work through analysis.

The period of Prof. Büyükerşen's chancellorship was a transformational period when technology was just seeping into education, institutes of higher learning needed to adapt to the changing environments, and Turkey, as a country, was becoming more liberalized as a participant in the global arena (Okoth, p: 134). There was need for the education standards to match and to be able to favorably compete in the world market. This means the university leadership needed to be oriented towards beneficial internal and external networking.

Okoth, appreciated the leadership of Büyükerşen as follows (p:138):

He was capable of seeing the clear picture (the macro perspective of events) where everyone else never conceptualized an image. For instance, when the open education system was introduced in Turkey people had the perception that it was only to attract distant students into higher education, but he had foreseen the possibility of lifelong learning as a component. He had an eye for details and broad vision, and believed in technology as a way of completing tasks.

He practically trained the first civil aviation operators in Turkey, including pilots. This resulted from the establishment of Turkey's first college of Civil Aviation with help from the International Civil Aviation Organization in 1986. He saw the need rise for practitioners in the field of aviation with the issuance of the right of operation to the private sector in 1983 (Okoth, p:138).

Intuition, rationality and moral imagination in determining what must be done to shape the future of an organization are part of competencies of a visionary leader Manasse (1985). Prof. Yılmaz epitomized this when he established the first center for Education Research and Application for hearing impaired children at the university (Okoth, p:138). His efforts and visionary leadership led to the introduction of a center that did not only cater to the need to the hearing-impaired children, but also provided training to their families on how to communicate to them. The center also focused on early detection of hearing loss in children and became the first in Turkey to provide cochlear implants (Taşçı, 2009). This led to the establishment of the faculty of special education in 1983 to train personnel who would pursue the training of the hearing-impaired.

Ireland and Hitt (1999, p: 43) define strategy as “a person’s ability to anticipate, envision, maintain flexibility, think strategically, and work with others to initiate changes that will create a viable future...” Okoth evaluates the strategic leadership of Büyükerşen as follows (pp. 138-139):

Büyükerşen would analyze an issue and determine the required inputs and then look for experts in the fields. If he could not get the kind of skills and support he needed with the university or in the country, then he went out of the country for it. Knowing the value of strategic partners and other stakeholders is considered a key competency of a leader. Prof. Büyükerşen managed to get into agreements with many local and foreign organizations in order to advance the cause of Anadolu. NASA, Pennsylvania State University and British Open Education system are among the outfits he dealt with in the international scene. In order to advance the young school of civil aviation, he championed partnership with various French educational institutions like École nationale supérieure de l’aéronautique et de l’espace (SUPAERO), École nationale de l’aviation civile (ENAC) and École nationale supérieure d’ingénieurs de constructions aéronautiques (ENSICA).

Establishing goals and providing resources necessary (both material and personnel) to achieve those goals is a vital part of achieving any form of success. The nature of resources needed in a university includes both physical and human infrastructure as well as facilities and materials that support operations. Prof. Büyükerşen’s tenure saw the introduction of more faculties than most universities in Turkey at the time. In his pursuit to avail these resources, he recognized and incorporated the latest in terms of world technology. Just as important to success is the ability to evaluate the performance of the resources employed and the staff, and Prof. Büyükerşen never waited for the results to come but rather closely followed the work done by his staff. He always exerted pressure on them to achieve results, and as the participants indicate, the amount of pressure he exerted on the staff could be attributed to the many success stories the university registered. Employee development is vital in maintaining and developing the capabilities of both individual employees and the organization as a whole. He thus develops his subordinates by inspiring and developing them and trusting them to be

able to perform certain tasks. Prof. Büyükerşen trusted the expert and experienced staff to perform tasks where his knowledge was insufficient. His decisions were definitive and quick and in case things went wrong (they rarely did for him) he took full responsibility and moved on to the next best solution.

CONCLUSION

Social and Solidarity Economy (SSE) is fundamentally about reasserting social control over the economy by giving primacy to social and often environmental objectives above profits, emphasizing the place of ethics in economic activity and rethinking economic practice in terms of democratic self-management and active citizenship.

From the 1980s onwards, the idea that local communities can serve their own needs through social and solidarity economy organizations has gained momentum globally. Negative impacts of rising inequalities and the limits of the MDGs process in addressing multiple dimensions of poverty and in achieving several of the goals emphasized the need for a more profound transformation in thinking and policy making.

The SSE has positioned itself as an alternative economy and a socio-economic space between the capitalist (private) sector and the public sector. Social and Solidarity Economy is an ethical and values-based approach to economic development that prioritizes the welfare of people and planet over profits and blind growth. SSE is a holistic approach. SSE organizations, enterprises and networks simultaneously pursue some combination of economic, social, environmental and emancipatory objectives. SSE accepts the reality of the capitalist system and its core institutions and rules; however, it is primarily about expanding the economic space where people-centered organizations and enterprises can operate.

Solidarity economy based enterprises have the ability to enter strongly into dialogue with dynamics of endogenous development, making the local actors the prime protagonists responsible for local development and taking into account and expanding local capacities.

Local economic development and SSE are seen as complementary tools, both of which strive for participatory governance, partnership, empowerment and social and economic inclusion. Compared with traditional approaches, SSE provides a new vision of local development by widening the structure of a local economy and labour market and addressing unmet needs with various goods and services

SSE can provide a useful mechanism for linking the needs of territories with local and national development trajectories and facilitating aspects of good governance associated with policy dialogue involving citizens, local officials and other policymakers. Transforming the

reality of the localities based on the role as protagonist, on the engagement and leadership of the various actors of a given territory as a strategy – is one of the most promising alternatives for ensuring effective and sustainable transformations.

Development happens in the localities where people simply aspire to a better life. To that end, it is important to acknowledge the leadership role in this process, taking into consideration the capacity to build a vision of the future, to influence people and to act effectively. Those traits are also intrinsically related to the solidarity economy, which starting from a spirit of cooperation and collaboration, gets consolidated as an inclusive alternative for thousands of people. Building alliances is indeed strategic and relevant for ensuring the empowerment of all of the local entities involved, as well as of society at large. The occasion of linkage between the local bodies and leaders permits identification of a local (territorial) identity.

Based on the building of a participative plan to define the current situation and identify the real demands and needs, a vision of the future is defined that puts forward a series of initiatives, projects, actions and complementary tasks that result in routes for transforming, changing or altering the present reality.

One of the most important arenas of a process of local development is grounded in human capital. The individual is the key element. Prof Dr. Yılmaz Büyükerşen is a good example of transformative leadership. After his election Eskişehir Mayor since 1999, he has materialized a wide range of projects that transformed the province's appearance.

Büyükerşen contributed to the economic, social and environmental development of Eskişehir both as an Anadolu University Chancellor and also as a Mayor of the city. He has been trying to increase the living conditions of the city by initiating variety of projects related with education, health, employment, infrastructure, resource management etc. He works on the projects together with public, private and civil society forces of the city. They create synergy for making things done effectively. Development with people and for people is possible when there is singularity of interests and participative engagement.

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Housing Market Arrangements in Turkey and Their Financial and Environmental Sustainability

Filiz Tepecik¹

ABSTRACT: The nature of the housing market in Turkey can be listed as follows: residential property is more common than the tenancy. Users usually prefer to own the house. Most of the houses were built by private entrepreneurs working under free market conditions. In general, housing is financed by bank loans, as they are quite expensive compared to income,

These basic features have become unsustainable due to population growth and acceleration of urbanization. In urban areas, the need for housing has increased rapidly. Producers and the sector create various fields for state intervention. The sector with the *gecekondu* (shanty houses), the cooperatives, private sector, creates various areas for state intervention.

In the 1930s, housing needs for civil servants of the capital Ankara; in the 1950s, besides industrialization, shanty (shanty) areas and built and sell system created by migration to cities; after the 1980s, increasing burden of public regulations on the market and on construction costs and the Housing Development Administration (TOKİ) can be considered as the remarkable steps of the regulations.

In this study, the development and transformation of this historical process and its effects on the sector will be interpreted.

Keywords: housing sector, historical development, law and economy.

JEL: K25, L52, N00.

INTRODUCTION

It can be alleged that housing problems emanate mainly from two reasons in the Republic of Turkey. First of the reasons is the demographic change. Population growth is accelerated in Turkey especially in the aftermath of World War II. The second reason for the housing problems is the mobility of the population. Developments in the agricultural sector in the early years of the Republic, the attractiveness of cities in the following years, the urban population increased and housing production did not catch up with this increase. The need for housing has been identified differently in different periods, which has led to different practices and results. In this study, these time periods and their respective challenges will be roughly addressed, and the effect of incentives and measures on the formation of the current housing sector of Turkey will be discussed.

PERIOD FROM 1923 TO 1950

In the early years of the Republic, improvement in the living conditions, increase in the income level, provision of the health service at a satisfactory level, pursuit of pro-natalist policies up to 1960s by the newly-established Turkish state ultimately resulted in a rapid population growth. As can be seen from Table 1, deaths decreased and births increased.

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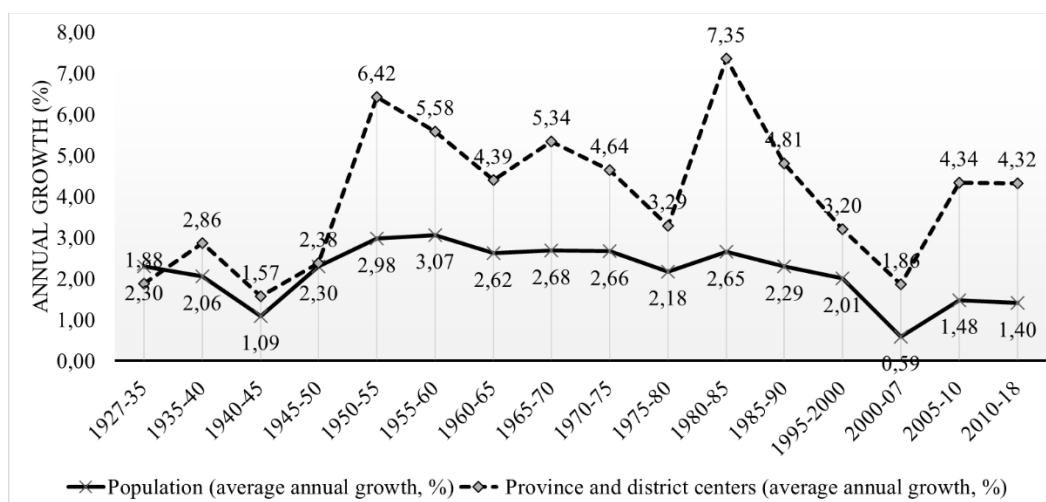
TABLE 1
Demographic Rates

	Natural Population Growth %	Crude Birth Rate (per thousand)	Crude Death Rate (per thousand)
1935-40	2,6	38,3	19,4
1945-50	2,3	38,8	17,6
1955-60	3,1	44,0	12,6
1965-70	2,7	39,0	13,5
1975-80	2,2	32,2	10,0
1985-90	2,3	29,9	7,8
2000 (1)	1,4	21,6	7,3
2010	1,5	17,2	5,0
2017	1,3	16,4	5,3

Source: Grand National Assembly of Turkey Presidency to report for 1935-60, https://www.tbmm.gov.tr/tutanaklar/TUTANAK/CS_/t06/c041/b070/cs_060410700101.pdf; for after 1960 Turkish Statistic Institute (TUIK): Population and Demography/ Results of Population Censuses, www.tuik.gov.tr.

The second reason for the housing problems is the mobility of the population. The spread of good quality seeds, irrigation and mechanization led naturally to the diversification of products and to the increase in the income level of farmer villagers in the first years of the Turkish Republic, on the other hand, the mechanization in agriculture following the 1950s caused the dissociation of the rural population. Moreover, the inflow of investments into the urban areas attracted and promoted the migration from rural areas to certain Turkish cities, Ankara, Istanbul and İzmir in particular. As shown in Figure 1, urban population growth is above the general population growth. Furthermore, the migration flows originating from abroad can be mentioned.

FIGURE 1
Increase of Urban Population and Total Population



Source: Turkish Statistic Institute (TUIK): Population and Demography/ Results of Population Censuses, 1927-2000 and results of Address Based Population Registration System, 2007-2018; <http://www.turkstat.gov.tr/UstMenu.do?metod=temelist>.

In the end, the increase in the density of urban population caused the need for new housing to be more obvious. This need was identified in various ways at different time periods and distinct solutions were sought with the available resources. This situation allows the periodic follow-up of housing policies.

The early years of the Republic of Turkey can be described as a period when economic resources of the country were relatively scarce. However, the newly-established Turkish state had a new capitol city and new public employees. Thus, both the need of the new capitol city for public buildings and the need of its employees for housing are the main determinants of the construction policies of this time period. In other words, this period covers the construction of Ankara and the measures taken for this purpose. First, the municipality of Ankara and the Turkish government at the time started to put the old city in order, expand the main streets, to build safe buildings in order to replace adobe houses, transform the burnt-areas into public gardens, and then took steps for re-planning of the city of Ankara in cooperation with certain urban planners, most of whom were German or Austrian.

At the same time, this period was the time when the templates were created for the next practices. Ankara was a small city when it became the capitol city of the newly-established Republic of Turkey. At that time, it did not have any housing good enough to satisfy the needs of new public employees. Because the land value increased as a response to the incoming migration flows to Ankara city, the cost of housing construction which was primarily composed of the land cost turned to be relatively high especially vis-a-vis the income level of the city dwellers. Although the targeted population changed from time to time, the aim of state interventions in this period was to reduce the cost and make the housing units affordable.

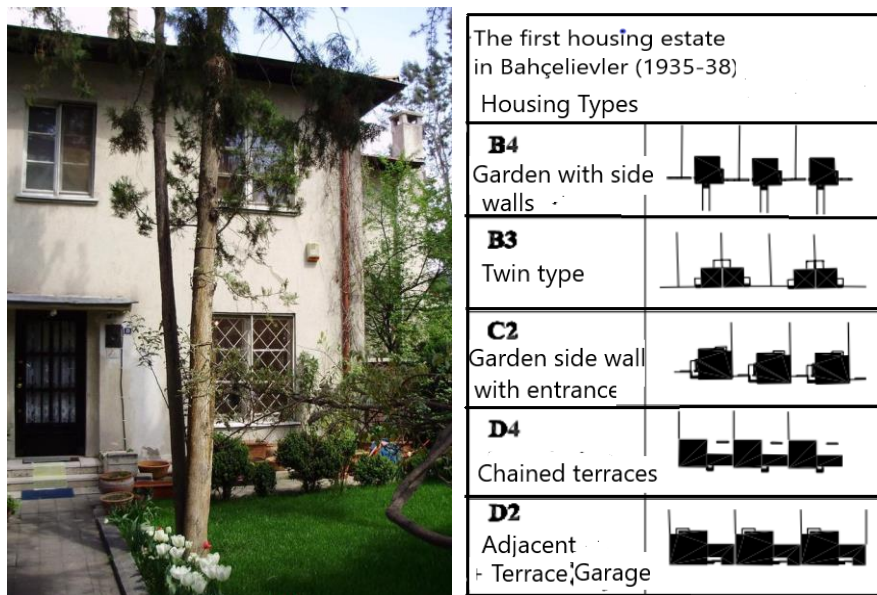
Solution

From 1923 to 1950, key factor in achieving to cut the cost was the production of housing units around urban fringes where the land value was relatively low. In addition, joint construction, ie cooperative, was also encouraged as a method of reducing construction cost, since detached houses on a parcel belong to a family would be built (the legal regulations for constructing apartment buildings was not yet in force at that time). Since it was the time for designing the general plans for the city of Ankara, housing plans as in urban planning was assumed by Hermann Jansen (Yazman, 2009). The idea was nice, but cooperative and land incentives were not enough and a credit arrangement was needed a credit arrangement in order to put the idea into practice.

One of the first regulations is the law no 586 of 24 March 1925, allowing each civil servant to receive half of his/her monthly salary as advance payment (Akalin, 2016). Another is a favorable conditional loan chance. With Cengizhan's words (2010) "the idea of housing for civil servants was offered even back in 1925, however, it was conceptualized as 'the state quarter' by Jansen, and but it was materialized via Saraçoğlu Quarter to set an example towards the end of World War II in 1944, with the financial support of Emlak ve Eytam Bank (Real Estate and Orphans Bank)". The detached houses which was planned exclusively for a single household and whose land parcel was owned only by a single household, were the most common form of housing units in Turkey in this period (Yerli, 2016).

Hence, housing cooperatives aimed to construct numerous buildings which had 2 or 3 storey, whose parcel of land was owned entirely by a single household and which appeared similar to each other as seen in Figure 2.

FIGURE 2
One of the First Cooperatives: Bahçelievler (Houses in Garden)



Source: (Emek-Bahçelievler Eski Dostlar (Emek-Bahçelievler Old Friends)).

Effects of the Application

The cost of a housing unit is composed of three primary items, that is, land cost, planning cost and construction cost. In the early years of the Republic of Turkey, the goal of reducing land costs moved structures to regions that could be considered as a field, where zoning plan has not been made yet. This type of construction increased the infrastructure costs of municipalities in the following years (Kılıç & Özel, 2006).

The apparent purpose was to produce housing for civil servants. However, the conditions for obtaining credit made it possible for only high-level bureaucrats to benefit (those with relatively good income and permanent staff). The private or public sector workers had not been initially considered. As a result, the solution that low-income civil servants and workers found for themselves led to the emergence of slums.

As the increase in the urban population could not be balanced with the production of housing, rent and land prices continued to increase. Throughout the period, such indirect interventions have been implemented as well as direct interventions. For example, in 1939, the National Protection Law introduced restrictions on rents.

PERIOD FROM 1950 TO 1980

1950s was characterized by Yılmaz and Çitçi (2011) as rural dissociation because of the increase in agricultural income and mechanization in agriculture; was defined by Şengül (2009) as the urbanization of labor force. Both studies indicated the movement from rural areas to the cities or from agriculture sector to industrial sector. In the 1950's, many people moving to the city started to work as an employee and sought for a shelter for himself/herself around urban fringes. These individual shelters quickly transformed into quarter and became known as Teneke neighborhood (quarter), huts and third Ankara. Ultimately, a common name for these neighborhoods has emerged: Gecekondu (shanty town.). The dominant production style of this period is shanty houses. However, it is also seen in production by cooperatives and private sector.

Gecekondu (Shanty House)

If translated literally, gece (night) kondu (settled) refers to the hasty construction process of the building at night, and emphasizes the fact that, before anyone notices, it is built illegally without obtaining any construction permit to be issued by authorities. According to the definition in the Law No.755 dated 1966, gecekondu (shanty house) is the name given to the structures built, regardless of the legislation and general provisions regulating the zoning and construction works, on a land or plot which is owned by someone else without his/her consent.

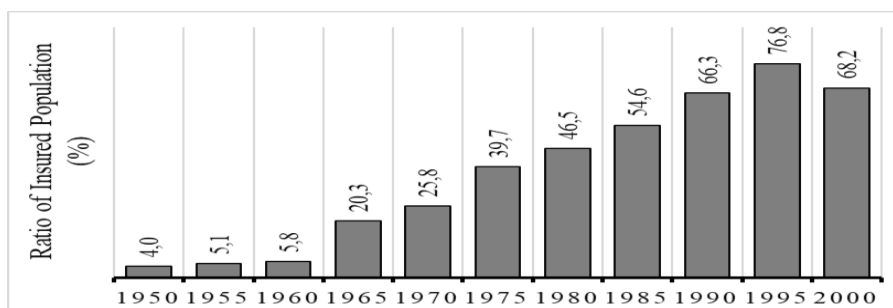
It is one of the three main ways of housing construction of the fast urbanization period launched in 1950s. They are primarily the detached houses which are built most of the time on treasury land around urban fringes and under the constant threat of demolition by the municipality authorities. No cost was incurred for the land or plot and members of the

household usually worked in its construction. It was the most inexpensive housing acquisition method that could ever be thought of.

Housing Cooperatives

The second method was housing cooperatives implemented in previous years. Differently from previous years, social security institutions, municipalities and even some factories supported the mass housing cooperatives with appropriate interest rate loans. However, production was still quite limited. The problem stemmed from the small size of the population under the social security umbrella. In order to make use of this method, the person getting the loan had to be a member of the social security fund. However, the population covered by the social security system was quite small in Turkey in this period (Figure 3). Thus, in fact, the amount of savings to be generated by these funds was as limited as well as the number of individuals to obtain the loans. In other words, it did not seem likely to effectively solve the housing problems of the period, considering the number of households with access to the social security institutions.

FIGURE 3
Ratio of Insured Population (% , Turkey)



Source: Social Security Institution, Ministry of Development/ Table 8.11: The Population Covered by Social Insurance Programs.

Build-and-Sell System (Yap-Satçılık)

The third method was named as build-and-sell. This system found position for itself in the liberal environment of the 1950s, as étatism practices were relatively abandoned. Giving priority to the private sector in all areas has created a suitable environment for private entrepreneurs to enter into housing production.

In this case, housing producers were self-employed entrepreneurs who were specialists such as architects and civil engineers or a small business person successfully marshalling all stakeholders together. The entrepreneur usually negotiates with the owner of a vacant land or an old building with a precious plot in downtown in order to erect a new building and give

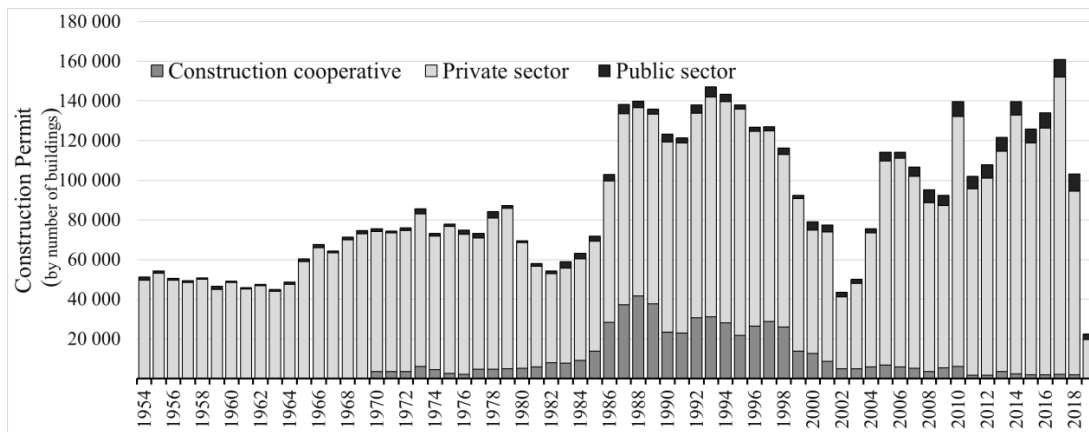
some apartments to the landowners from this construction project in return. In this framework, the number of apartments to be given to the landowner depended on the market value of the land. The landowner obtained the ownership of 30% of the apartments of the building in general whereas this percentage reached up to 60% sometimes when the land was precious (Ersoy, 2004).

In the research by Eşkinat, Tepecik (2010: 193), a participant noted in irony that “although the method was called build-and-sell, it was actually sell-and-build method in the past”. In fact, the majority of the apartments was sold before construction starts. The first practices were primarily about ‘selling at the groundbreaking phase’ (Balamir, 2003). In later ways, to provide sufficient resources to realize the project, some of the building's apartments were sold before construction. With the effect of high inflation, the rest are sold as needed. It can be asserted that this mode of production was preferred because the capital was basically scarce or small in Turkey in this period.

The Effect (Influence or Impact) of the Applications of the Period

Through construction statistics dating back to 1954, it is possible to say that private entrepreneurs produced the most housing. Figure 4 was created with data on the construction permits. Construction permit is an official document issued prior to the launch of construction process to indicate that the structure was planned in accordance with architectural and engineering rules and legal regulations of the municipality and so construction process can be initiated. As expected, this official document was not obtained for illegal building, that is, gecekondü (shanty houses). As a consequence, shanty houses are not available in the data represented in the graphics. Therefore, the graphics shows that the majority of housing units whose construction process was launched legally were built by the private sector. Therefore, the data represented by the graph does not include the number of slums. With this deficiency, the graphic shows that the majority of housing units whose construction process was launched legally were built by the private sector.

FIGURE 4
Construction Permit (by Number of Buildings)



Source: Turkish Statistic Institute (TUIK), Construction Permit, www.tuik.gov.tr.

However, in certain studies, there are figures for the shanty houses without construction permit. For instance, according to Karpaz, 64% of housing units in Ankara, Turkey, 48% of housing units in Adana, Turkey, and 40% of housing units in Istanbul, Turkey, would be classified as gecekondu (shanty houses) in 1960s (cited by (Aslan, 2008)).

Turkish Condominium Law as a Result

Because of multiparty democracy in the 1950s and the expansion of trade unionization movements in the 1960s, what an individual on the street thought was important. The most important legal regulation of this period was Turkish Condominium Law (LawsTurkish 1965). In order to satisfy the growing need for housing, first in Ankara and then in other large cities of Turkey, a new storey was permitted to be added to the existing buildings in the 1960s. Therefore, there was a need for a legal arrangement for the ownership of multi-storey buildings. The detached housing unit built exclusively on a specific parcel of land with a view to accommodating only a single household, was transformed into multi-storey and multi-owned buildings. The Condominium Law No.634 dated 1965 granted the right of separate ownership for each individual apartment of the building. It was a revolutionary change for its period and caused significant changes.

For example, Balamir commented as “the condominium, legalized as of 1965, created a new social stratification along with a new urban life style and housing culture” (2003: 313). It has not been able to reduce the slum districts, but has caused an increase in apartment blocks parallel to the slums in the cities (Figure 5).

FIGURE 5
Rapid Urbanization: A Combination of High-Rise Buildings and Slums



Undoubtedly, the real problem is the increasing speed of urbanization. It is also a fact that with the measures taken, the rate of housing production and the rate of urbanization cannot be controlled. “The housing patterns which emerged with the transformation of shanty houses in 1960s, the introduction of subdivided parcels and the multiplication of illegal housing all together started to threaten the Turkish cities with an organized plunder system in 1970s. Successively granted zoning amnesties aggravated the housing issue even more, and the lack of urban planning at a significant level especially in Turkey’s big cities which received huge inflows of migration led to a sharp increase in the unhealthy housing patterns” (Özden, 2006, s. 220).

Additionally, arable areas lost due to higher land values. “Using the agricultural land for non-agricultural purposes, transforming the productive agricultural lands for settlement purposes and permitting the establishment of industrial production plants on productive agricultural lands lead to considerable losses of productive agricultural land” (YeniAsya, 2015).

PERIOD FROM 1980 TO THE PRESENT

Two reasons caused this period to take shape can be mentioned. The urban expansion speed was very high during the 80s and at the end of the 90s two devastating earthquakes occurred.

The urbanization velocity led to the diagnosis that housing production should be accelerated. Even the number of housing has become the target. The remedy was also a cooperative mode of production with some additions. Experience has shown that the housing-

producing structure through cooperatives works better with financial support. this provoked the creation of an institutional authority: the Housing Development Administration (TOKİ).

Earthquakes, on the other hand, transformed the system into a structure with more control and TOKİ into a housing producer.

The Housing Development Administration (TOKİ)

1980s put an end to the planned economy period along with a deep economic crisis and a military coup. The most important actor of new period is the Housing Development Administration (TOKİ) which is still an effective player today. The institution, which was reorganized in the 90s, was founded in 1984 with the Mass Housing Law No. 2985. Initially institution supported by organizational capabilities and land portfolio, over time, was strengthened financially with extra-budgetary fund and presented its funds as mortgage loans offered by three Turkish commercial banks (Emlak Bank, Vakıfbank, Pamuk Bank), for supporting the housing construction by means of housing cooperatives (Cengizkan, 2009).

The funding sources could only be used in the mass housing cooperatives. This situation increased the role of cooperatives in housing production after 1980. The number of housing cooperatives reached 5201 in 1987 whereas this figure was 279 in 1983 (Aslan, 2008). Its goal was to ensure the construction of a high number of housing units. Credit facilities had also a positive effect on the acquisition of housing ownership by fixed-income employees.

However, certain problems should also be noted in this connection. For instance, the selection criteria of the fund's resources, in particular the three banks offering it, political corruption allegations and the proportion of non-performing loans were consistently on the agenda.

In this period, the relationship between the shanty house owners and state had ups and downs (. Amnesty followed by prohibitions (practices starting in the 70s) has become more frequent and has created an incentive to violate the law. Türksoy (1996) emphasizes that shanty towns “were under the control of organized plunderers and speculators” in 1980s.

In this period, another reason for the strengthening of TOKİ was 1999 Adapazarı and Düzce earth quakes. In the wake of the earthquakes, the confidence in contractors and their buildings was shaken sharply in Turkey. The idea of perceiving as a priority to own a house even with only four walls whatever they were constructed from became obsolete, and instead, the demand for good quality housing came to the forefront. A feeling of distrust discouraged households from buying homes and they preferred to live in rented houses for a while. This

atmosphere created an opportunity for municipalities and national government to issue new regulations.

Construction Supervision Agency

In order to control the quality of housing units built in this period, independent supervisory offices were established by the national government which specified who would be in charge of supervision process and what their responsibilities would be (Law on Construction Inspection) (law no 4708 dated 2001) (LawsTurkey, 2001). Independent units have been established to measure and approve the quality of iron and concrete, or to supervise the construction of the building from start to finish, in order to enable the inspection offices to control the quality of housing. All these new rules led to an increase in the cost of housing production. Nevertheless, the skepticism dominant in the atmosphere urged the households to avoid purchasing houses for a while.

Big Construction Companies

Some construction companies overcame this impediment by branding their names. This atmosphere allowed only the construction companies competent enough for brand promotion necessary to be dominant in the construction market. Thus, the dominance of big capital owners in the construction market was further reinforced after 2000 as was the case for 1980s. Although the earthquake affected only one region in Turkey, the entire Turkey was shaken by its deep impact and the construction companies still managing to be operational in the wake of the earthquake made investments in different cities of Turkey in order to assume construction projects. As a consequence, big capital owners and their construction companies which placed advertisement on the national TV channels became better known all across Turkey.

Urban Renewal

In all these years finally brought the Turkey the urban renewal. “Four chief reasons can be identified for the advent of the need for urban renewal in Turkey....These are migration, illegal housing, challenges faced in city centers and old city parts... especially the earthquakes” (Özden, 2006, s. 219). In Turkey, three different approaches is observed in urban renewal carried out by the private sector:

1. Big construction companies undertake and complete rapidly the renewal projects on lands offering the highest rent profits.

2. Small-scale companies or builder-and-sellers assume the renewal of lands offering lower rent profits, crucial transportation networks or fringes of the prestigious housing sites.
3. Renewal is not realized around lands with the lowest rent profits, urban fringes or shanty towns located next to industrial zones, occupants of the shanty towns reject the alternative solutions with the expectation of higher rent profits to be obtained through zoning plans likely to be renovated in the future (Şişman & Kibaroglu, 2009).

Housing production for low income groups is carried out through TOKI. The way of this production has been criticized for carrying the poor back to the walls of the city and for creating vertical slums due to its multi-storey houses.

CONCLUSION

The evolution of housing problems could even be tracked down through different interpretations of the concepts in a historical perspective. For instance, shanty houses and their appearance in 1940s were considered as a pathological case (Kızılay, 2016). However, they were the means of integration into the city in 1960s (Kongar, 1996). The different meanings attributed to the same word told a lot about how the problem was viewed. In 1940s, it was expected that the migrants from rural areas would return to their villages soon. Even when their return was anticipated, preventive measures were devised as a solution. It was assumed that the problem would disappear if the eyes were closed. In 1960s, process was perceived as normal and it was believed that new comers had the ability to solve their own problems. The need to normalize the existing problematic situation made the philosophical base for granting the zoning amnesties. As the zoning amnesties were considered to offer the easy way for obtaining the ownership of a real property, the shanty house turned to be a means of earning rent profits, not only an accommodation facility. This once again led to the attribution of negative meaning towards the shanty town residents. The policies implemented and the reactions to these policies were the reasons for this transition.

The most significant regulation affecting the period of 1960s was the Property Ownership Act. Granting the right of property ownership over the same parcel of land to several people as shares had as positive an impact as removing a bottleneck. The number of storey in building increased gradually. The first environmental effect of this legal act was the air pollution in 1960s because of the heating methods of the houses. As the human populace

concentrated in the same neighborhood gradually grew, it was unavoidable to have problems with garbage disposal and sewage system.

Another noteworthy issue was the cost. Housing construction processes or legal regulations or control procedures were not supposed raise the cost. As investment in housing was highly costly in comparison to the income level of individuals, measures raising the cost made the people avoid purchasing houses. The sustainability of the regulation could not be maintained.

It was particularly important to include learnable processes into each regulation so as not to repeat the same mistakes. For example, housing cooperative in Turkey was not a learning establishment because of its operational structure which started from scratch for each construction project over and over again and terminated itself when the construction process ended. The fact that the life of each housing cooperative was limited by the duration of the construction project, that is to say, the housing cooperative was terminated at the end of the construction process, did not allow the transfer of experience to other cooperatives. Therefore, housing cooperatives did not enable learning and lead to the recurrent mistakes. Specialization was not acquired as a skill.

The state-dominated character of the construction sector in Turkey suffered from the failures of the public sector. The fact that the market mechanism in housing construction would work in Turkey only if the documentation of income and debt was constantly provided made those with irregular incomes unable to reach construction services. In other words, the population reached through market mechanism was not the target group of the public sector. A system to remove the flaws of both systems was likely to be sensible.

For Kiray, there was a relationship between being an inhabitant of a shanty town and the lack of regular incomes and slow development of secure employment opportunities. Although inhabitants of the shanty town were relatively poor in the city, they still preferred to live in the shanty town because they had better living conditions in shanty town than their points of departure (quoted by Kızılay, 2016). This trend still continued today although it was in decline. Hence, two methods could be proposed for the solution of this problem. The first step to spread the urban congestion to the outskirts of the city was to ensure the same development level in the towns and districts as the cities. Another solution was to secure a higher income level for the shanty town residents. Financial assistance that would cut the construction cost could be extended to those interested in building their own houses.

However, each standard devised to boost the housing quality and necessitating the control procedures was to raise the construction cost. It should also be stated that planning

efforts in Turkey failed to anticipate the future trends correctly. Planning in Turkey followed the current trends at least a few steps from their behind.

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The European Social Model – Typology and Performance in 2017

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ABSTRACT: There is no common social policy on European level, and member states differ in terms of social policies, social transfers and share of the national wealth's redistribution. They apply different social models, which include different levels of social protection, state labour markets intervention, public spending on social transfers, etc. This paper presents different social models classifications with emphasis on the one of Esping-Andersen (1990). On this basis it evaluates the performance of each of the four types of models according to the wide spread employment-to-population ratio, and according to the Efficiency/Equity method of Sapir (2005).

Keywords: social model, employment, poverty and social exclusion, European Union.

JEL: I24, I28, I32, I38.

WHAT STANDS FOR THE EUROPEAN SOCIAL MODEL?

The term “European Social Model” has not been defined with any precision (Nadin and Stead, 2008). According to the European Commissioner for Economic and Monetary Affairs (2004 – 2010), Joaquín Almunia, “there is no such thing as a single European social model” (Almunia 2005). He suggests that there are a number of different social policy models, which share a set of common features or underlying aims, notably, reducing poverty and social exclusion, achieving a fairer distribution of income, providing social insurance and promoting equality of opportunity.

The European Commission's White Paper on Social Policy (COM (94) 333) of 1994 describes the 'European Social Model' (ESM) with regard to the values it upholds, namely democracy and individual rights, free collective bargaining, a market economy, equal opportunities for all, social protection and solidarity. The model is based on the belief that the economic progress and social progress are inseparable: "Both competitiveness and solidarity are taken into account in building a successful Europe for the future."

The legislative basis of the European social model includes the EC Treaty, the Charter of Fundamental Rights of the European Union and the European labour law. The main pillar of the ESM is envisaged in the Treaty on the Functioning of the European Union (TFEU). Article 8 TFEU states that the Union, in all its activities, "aims to eliminate inequalities and to promote equality between men and women". It also states that the Union, when defining and implementing its policies and activities, "takes into account the requirements of promoting a

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high level of employment, ensuring adequate social protection, combating social exclusion and a high level of education, training and protection of human's health "(Art. 9) and that the Union" aims to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation" (Article 10).

The Treaty recognizes the role of social dialogue and social partners in art. 152, which states that "The Union recognizes and promotes the role of the social partners at Union level, taking into account the diversity of national systems. It facilitates dialogue between the social partners while respecting their autonomy". The TFEU also contains the legal framework for European social dialogue (Articles 154-155). The employment section of the Treaty includes the "open method of coordination" for the implementation of the European Employment Strategy (Articles 145-150).

The EU Charter, which has gained legal force under Art. 6 (1) of the Treaty on European Union (TEU), protects the fundamental rights of association, information and consultation, as well as the right of collective bargaining and action. It affirms the role of the social partners in EU social policy and gives legitimacy to collective bargaining and collective action, as well as information and consultation on enterprise level.

In its Europe 2020 strategy, adopted in 2010, the EU reaffirmed its commitment to the European social model, stating that it is seeking to create more and better jobs across the Union. In this direction is the European Employment Strategy, which promotes measures to achieve three main objectives by 2020: 1) employment of 75% of people aged 20-64; 2) a school-dropout rate of less than 10% of the students and at least 40% of the 30-34 year olds completing higher education; 3) at least 20 million fewer people at risk of poverty and social exclusion.

ESM'S TYPES AND CHARACTERISTICS

Numerous discussions in academia and politics have focused on whether it is right to speak of a single European social model (ESM) or there are several models offering different approaches.

One of the classifications that define different types of social models is that of Esping-Andersen, whose typology was based on the criterion of decommodification (i.e., the degree to which social services are provided as a matter of right and the extent to which individuals can maintain a normal and socially acceptable standard of living without reliance on the market). He defines three different regimes of the welfare state, namely: the Conservative model, the Liberal model and the Social Democratic model (Esping-Andersen 1990).

In the Liberal model both universal transfers and social insurance plans are modest, and the benefits are for low-income working class. The state does not intervene in the social sphere, as it is focused on the market's development and it provides minimum benefits to workers.

The Conservative model can be called "a social shell for capitalism without class struggle" (Esping-Andersen 1990). It takes the place of the market as a provider of welfare, and there is little redistribution of wealth.

The Social Democratic model promotes the equality of minimal needs as the previous two regimes mentioned, but promotes equality of the highest standards. It ensures that equality can be provided by guaranteeing that workers and new middle class engage in full participation in the quality of rights enjoyed by the better off. Such a welfare state ensures full employment by promoting the right to work (including of women) and the right of income protection. The main difference between these models is that while the liberals say that the welfare state threatens freedom and efficiency, the Socialdemocrats say that reliance on the market as the basic means of welfare is problematic because it fails to provide inalienable rights and because it is inequitable.

These three models are represented by the following groups of European countries - the liberal – by the Anglo-Saxon countries, the conservative – by the continental and Mediterranean countries, and the social democratic model – by the Nordic countries.

Another classification is that of Maurizio Ferrera, who adds a fourth type of social model. According to him, the welfare states in Southern Europe have distinctive traits from those originally proposed by Esping-Andersen. In his journal *The 'Southern Model' of Welfare in Social Europe*" (1996), Ferrera proposes a new model for Italy, Spain, Portugal and Greece. The characteristics of the Southern model include high amount of generosity (for example in pensions) together with a significant protection in a highly fragmented and corporatist² income maintenance system (Ferrera, 1996).

This well-known classification of the four types of social models in the EU is in the focus of the research by André Sapir (2005) in his paper "Globalization and the Reform of European Social Models". With the help of his work and other research, the main characteristics of the four types of social models are summarized in Table 1².

² Different criteria have been used to construct typologies of social models in the literature that are different from the Esping-Andersen's decommodification approach, f.e. typologies based on: basic income (Leibfried 1992), poverty rates (Ferrera 1996; Korpi, Palme 1998) and social expenditure (Bonoli 1997; Korpi, Palme 1998).

TABLE 1
Main characteristics of the different types of social models in the EU

Type of Social model/ Characteristics	Nordic/ Scandinavian	Conservative/ Continental	Anglo-Saxon/ Liberal	Mediterranean
Public social spending	The highest levels of social protection expenditures and universal welfare provision	High. A big share of these expenditures are devoted to pensions	Lower than the previous two. Subsidies are directed rather to working-age population than to pensions	The lowest share of expenditures and is strongly based on pensions and a low level of social assistance
Partnership between employers, trade unions and the government	Strong labour unions	Remains strong. Trade unions have important decision-making powers in collective agreements	Weak trade unions with smaller decision-making powers	Important role of the trade unions
Participation of workers in labour unions	High	Comparatively low and declining	Comparatively low and declining	Comparatively high
State intervention in the labour market	Strong. Active labour market policies based on extensive fiscal intervention	Not so active labour market policies	Activation measures are important as well as schemes conditioning access to benefits to regular employment.	Rigid employment protection legislation and a frequent resort to early retirement policies as a means to increase employment rates

Source: The author; Sapir, (2005).

The Socialdemocratic/Nordic/Scandinavian model has the following characteristics - high taxes, high income redistribution, high social protection and highly subsidized social services, strong state labour market intervention, highly developed social dialogue, high participation of women in the labour market. High standard of living and citizens with a high level of confidence in the social system (Denmark, Finland, Sweden and the Netherlands);

The Conservative/Continental model has the following characteristics - moderate income redistribution and higher unemployment rates, relatively high social protection and subsidies for social services, moderate state labour market intervention and relatively developed social dialogue, low participation of women in the labour market (Austria, Belgium, Germany, France, Luxembourg, Slovenia, Hungary, Czech Republic);

The Anglo-Saxon/Liberal model has the following characteristics - low level of general government expenditure, high inequality and low level of social protection spending, moderate to weak subsidies for social services, weak state labour market intervention and

poor social dialogue. This model evolves as a result of the deepening of economic globalization in the world and the transition to a liberal and neoliberal economic model. It is applied in the UK, Ireland, Poland, Slovakia, Lithuania, Latvia, Estonia, Bulgaria, Romania and Croatia.

The Mediterranean social model (Italy, Spain, Portugal, Greece, Cyprus and Malta) has the following characteristics - moderately subsidized social services and less financial resources for redistribution, moderate state intervention in the labour market, relatively developed social dialogue - approximately 1/4 of the employees are covered by trade unions (while in the Nordic model they are between 80-90%, and in the continental - between 1/4 and 1/2) (Hadjinikolov, 2017).

EVALUATING THE ESM'S EFFICIENCY

One indicator for a measuring of the social model's efficiency is the employment-to-population ratio³.

The European Union employment statistics based on the EU Labour Force Survey (LFS), calculate the employment rate is the percentage of employed persons in relation to the comparable total population. For the overall employment rate, the comparison is made with the population of working-age. The employment rate, in other words the proportion of the working age population in employment, is considered as a key social indicator when studying developments within the labour market.

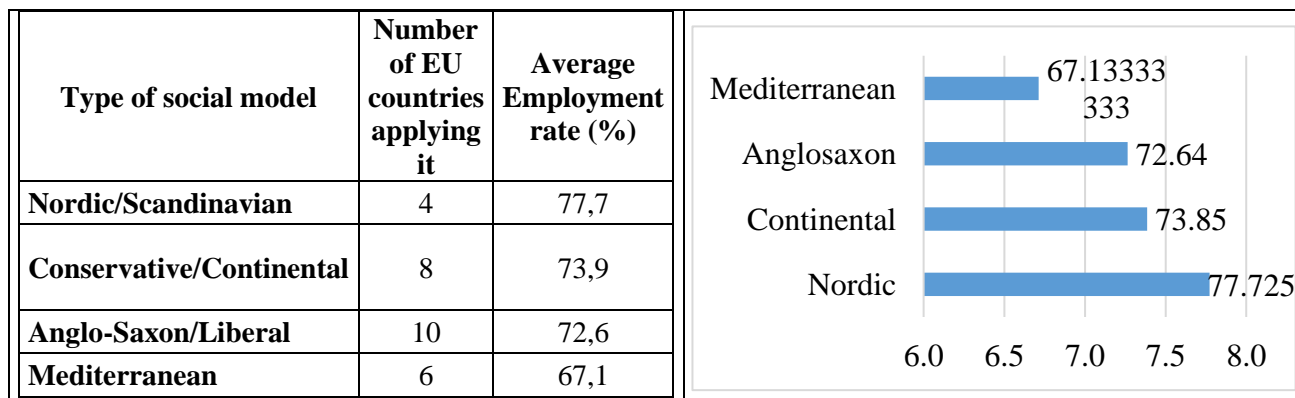
Sapir (2005) and Boeri (2002) use the employment-to-population ratio as a key indicator to analyze the incentives and rewards for employment in each social model. According to their estimates, in 2002 the countries in the Nordic and Anglo-Saxon model are the ones with the highest employment rate whereas the Continental and Mediterranean countries had not attained the 70%-employment Lisbon Strategy target (a target set in 2001, to be achieved by 2010).

Evaluating the different types of social models with current data, we would reach a similar conclusion. The Nordic model has performing considerably much better than the rest of the models. The Conservative and the Anglo-Saxon have reached lower employment rates but still covering the EU employment target, which, under the latest EU Strategy Europe

³ The Organisation for Economic Co-operation and Development defines the employment rate as the employment-to-population ratio. This is a statistical ratio that measures the proportion of the country's working age population (statistics is often given for ages 15 to 64) that is employed. A value above 70 percent of the working-age population is considered as "High", whereas a value below 50 percent is considered as "Low".

2020, was raised to 75%, while the Mediterranean is still striving to achieve it (Table 2, Figure 1).

TABLE 2, FIGURE 1
Employment rate in the EU in 2018 according to type of social model

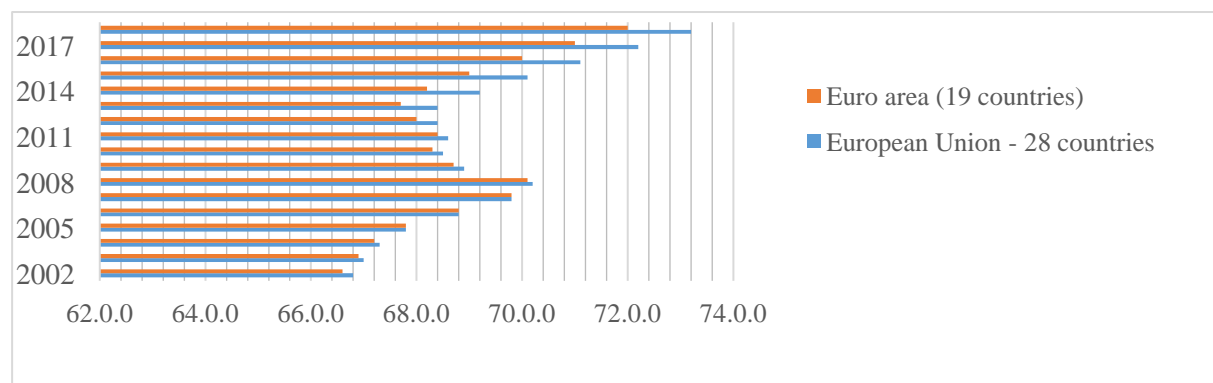


Notes: *People from 20-64 years, % of total population

Source: The author with Eurostat data (Eurostat, 2019).

It is worth noting, that the EU employment rate for persons aged 20 to 64 recorded its highest rate for over a decade and reaches 73.1 % in 2018 (Figure 2).

FIGURE 2
EU total employment rate in the period 2002 - 2018



Source: The author with data from Eurostat (Eurostat, 2019).

However, employment statistics show considerable differences by sex, age and educational attainment level. There are also considerable labour market disparities across EU Member States.

Another, more complex methodology to evaluate the different types of social models, is the one applying two criteria – efficiency and equity (Sapir, 2005). Efficiency shows whether

the model provides incentives to achieve the highest possible employment rate, while Equity shows whether the social model achieves a relatively low poverty risk.

In 2016, 112,8 million people in the EU or 22,4 % of its population lived in households at risk of poverty or social exclusion. In 2010 the EU and its member states committed themselves to the Europe 2020 strategy, which includes the ambitious target to reduce the number of people in or at risk of poverty or social exclusion by 20 million by the year 2020. However, during the financial and economic crisis their number even increased. The at-risk-of-poverty rates before and after social transfers show that these social transfers have an important redistributive effect that helps to reduce the number of people who are at risk of poverty. However, in 2017 16.9 % of the population in the EU was at risk of poverty after social transfers.

In 2005, according to this methodology and these two criteria, the Nordic model was the best performer, achieving both - efficiency and equity, whereas the Mediterranean one underperformed in both criteria. The Anglo-Saxon and Continental countries both seemed to face a trade-off between efficiency and equity. Anglo-Saxons had an efficient but inequitable social model, while the Continentals enjoyed far more equity but far less efficiency, see Table 3 (Sapir, 2005).

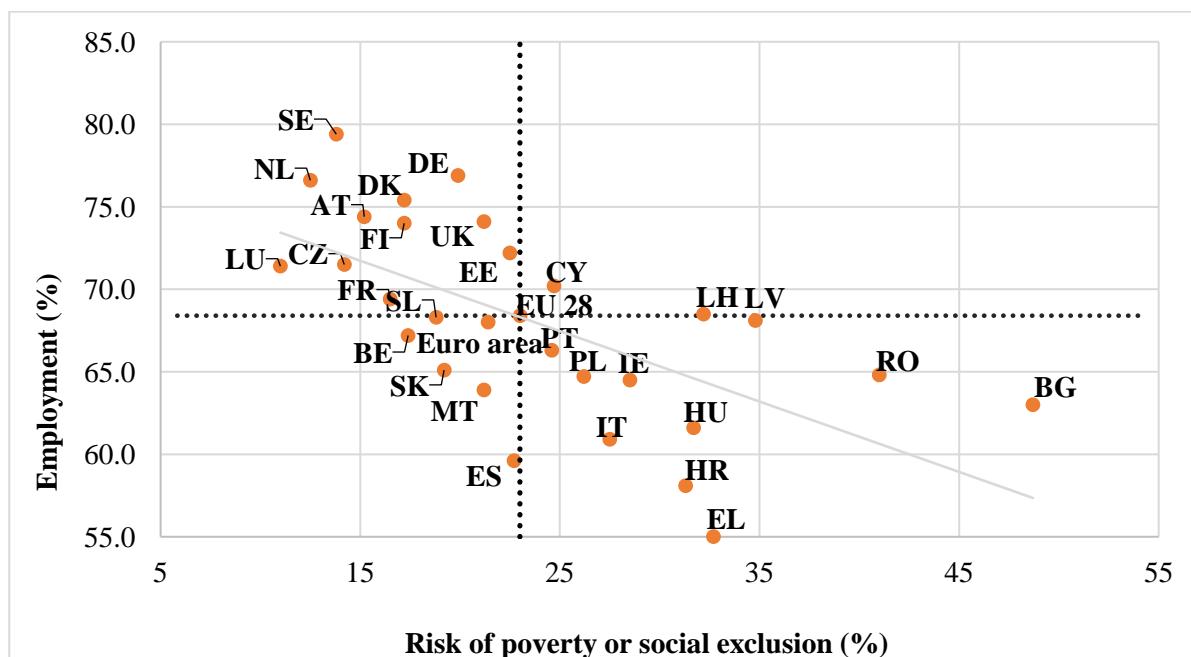
TABLE 3
The performance of different types of social models in the EU in terms of efficiency and equity in 2005

		Efficiency	
		<i>High</i>	<i>Low</i>
Equity	<i>High</i>	Nordic	Continental
	<i>Low</i>	Anglo-Saxon	Mediterranean

Source: Sapir (2005).

This methodology is applied by the author in this paper below, with most recent data.

FIGURE 3
Relation between Employment and Risk of Poverty and Exclusion
in the EU member states in 2012



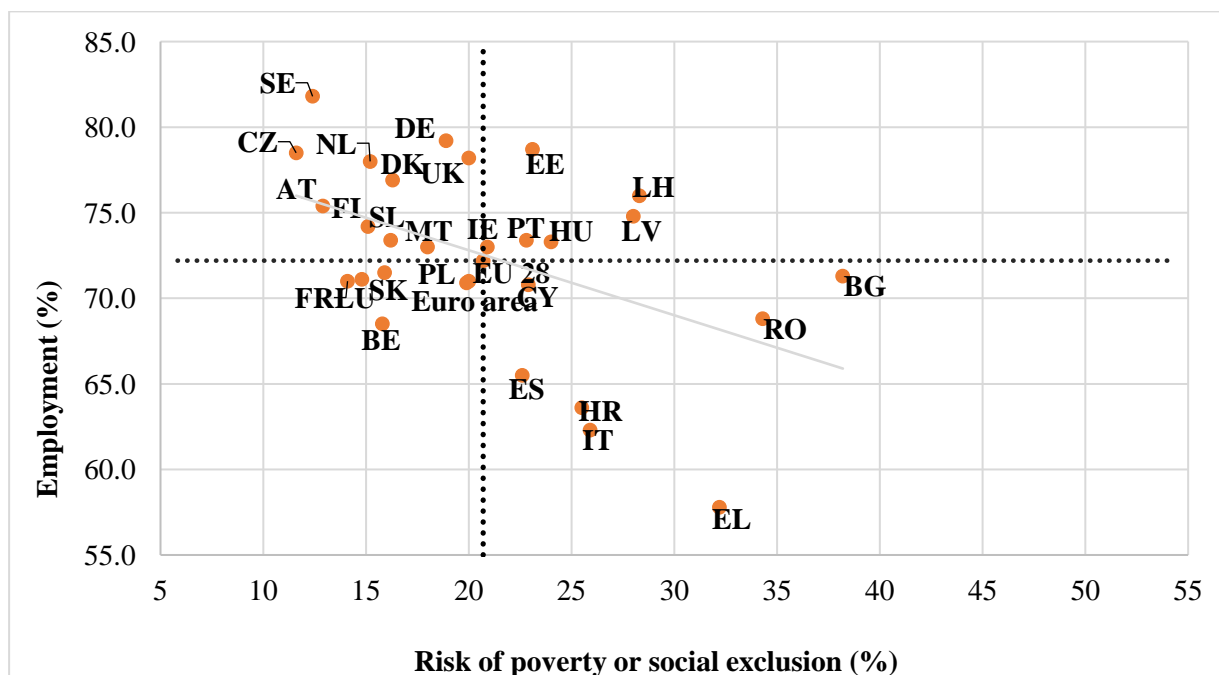
Source: The author with Eurostat data (Eurostat, 2019a, Eurostat, 2019b).

Based on the data and on the graphs extracted from it, it could be concluded that there is a linear connection between the two indicators, which is logical from an economic point of view. The connection is inversely proportional, i.e. as employment decreases, the risk of poverty and social exclusion increases.

Sweden is a very good example of a Nordic country with an efficient and equitable model. In 2012 it has the highest employment rate (79,4%) and one of lowest poverty indexes (13,8%) in the EU. In the opposite corner, Greece is a good example of a Mediterranean country with an inefficient and inequitable model. It has the lowest employment rate (55,0%) and one of the worst poverty indexes (32,7%).

The next figure illustrates the same connection 5 years later, after the negative consequences of the economic and financial crisis have been overcome.

FIGURE 4
Relation between Employment and Risk of Poverty and Exclusion
in the EU member states in 2017



Source: The author with Eurostat data (Eurostat, 2019a, Eurostat, 2019b).

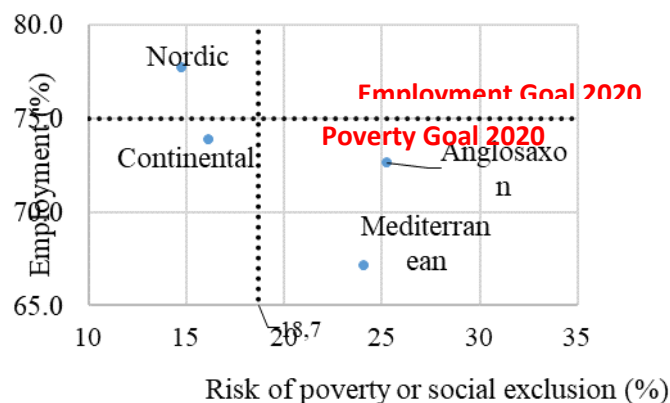
For a 5-year period, the average for EU Member States has shifted towards higher employment and, accordingly, a reduction in the proportion of at-risk-of-poverty and social exclusion.

The period under review shows that Member States are converging on these indicators around the EU average, i.e. concentrate in a smaller range around the average.

Bulgaria has experienced a significant approximation to the EU average - it is close to the EU average employment (71,3%), but still remains the country with the highest risk of poverty and social exclusion in the EU (38,2%).

The variation of the different models' performance in terms of efficiency and equity can be clearly seen in the following figure.

FIGURE 5
Employment and Poverty or social exclusion rates in 2017 and targets by 2020



Note: The employment target of the EU for 2020 was calculated as follows: The goal is to decrease the people in poverty and social exclusion in the EU with 20 million by 2020. The projection is that they will be 96,1 million in 2020 (Eurostat, 2018), and the EU population is projected to be 514,2 million (Eurostat, 2019c), then this social group will represent 18,7% of the EU population.

Source: The author with Eurostat data (Eurostat 2018, 2019a, 2019b, 2019c).

The Nordic model has covered the two major social goals in the Europe 2020 strategy – reaching employment of over 75% by 2020 and declining poverty at estimates below 18,% of the population. The continental is almost covering them, while the Anglo-Saxon and Mediterranean are underperforming in both criteria. It should be noted, however, that the overall low results for the Anglo-Saxon model here are to a big extent due to the inclusion of some Eastern European countries in the model, which are still catching up with the old member states. The Mediterranean model confirms its inadequacy in both – efficiency and equity.

CONCLUSION

There are different factors that affect the countries' performance in the social sphere. Despite the different historical, political and economic backgrounds, which have a big effect on contemporary economies and societies, a big part of today's challenges are common and need to be faced by all. In addition to the negative consequences of the crisis, there are some elements of the European social model that need be reformed in view of the increased competition in the globalized markets and the aging of European societies (European Commission, 2017). Other experts think that the main reason for the European countries' poor performance is that changes at the EU level have not been accompanied by necessary changes at the national level. Outdated labour market and social policies do not allow the Single Market, public spending on R&D and the currency union to unleash their full potential in

meeting the challenges of globalisation and technological change (Sapir, 2005). And then again the discussion comes to the point whether and how European integration needs to continue to develop and deepen in order to face the global competition. A part of the future of Europe that has not still received an answer.

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Sustainable Tourism for Contribution to Economic Growth and Social Inclusion of Rural Communities in Post-Soviet Georgia

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Tinatin Gvenetadze³

ABSTRACT. The aim of our research is to find out to what extent tourism industry in Western Georgia ensures sustainable regional development - economic benefits and social inclusion of rural communities. Our working hypothesis assume that tourism should be the main source for the regional development – with positive effects in employment, income generation, social inclusion, welfare growth of rural households and natural environmental protection. Does the Prometheus carst cave as a tourist destination create better living conditions for villagers? What are dimensions of influence of native population on environment and in what way does increasing growth of tourist flows affect sustainability of the ecosystem? How much does the influence of this tourist site span all socio-economic and gender/age segments of the community? How actively is local population involved in decision making and how close are relationships between governmental/non-governmental/private businesses and local community members? Our research is based on Case Study and Qualitative Research methods; we also refer to Stakeholder Analysis; primary and secondary academic sources are used as well. The results of our survey showed the economic benefit from tourism, although with diversified influence on social capital particularly, on households with different social-economic statuses. The research revealed misuse of natural resources; the process of involvement of villagers in decision making was assessed as weak; and the lack of professional skills among locals to run minor businesses needs to be improved.

Keywords: Georgia, sustainable tourism, transdisciplinary research, poverty reduction, welfare of families.

JEL: Z32, R11, R13, I31-32, P25, P31, P36, Q56.

INTRODUCTION

Today it is overall recognized that reduction of poverty, inequality and unemployment, improvements in income distribution, local communities' social inclusion in public life and decision making, access to good education and health service and cleaner environment are the main leverages to a better quality of life. Even though many developing countries experience high growth rates of per-capita income, big part of their population still faces challenges in the leaving conditions (Dong & Sui Pheng, 2015, p.13).

In our paper we intend to show that sustainable tourism for regional development requires good collaboration and coordination of both government and NGOs as well as private/business sector and academia together with the involvement of the indigenous population.

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Sustainability is a fundamental concept to assess the role of tourism in society. According to the World Tourism Organization, sustainable tourism meets the needs of modern tourists, while also protecting tourist destinations and increasing opportunities for future generations (World Tourism Organization, 2005). Today, sustainable development aims to span and improve the quality of life broadly, including economic progress, social inclusion and environmental preservation. Fulfilment of these goals is especially important for developing countries in transition like Georgia, in order to transform their economy and adjust it to new market conditions.

After fall of the Iron Curtain each Central and East European (CEE) and Former Soviet Union (FSU) countries choose its own way of development recalling to their historical background, cultural heritage, political and economic development patterns, future aspirations, etc. The development of tourism in those post-socialist states which had substantial tourism potential and tradition was focused on rehabilitation of tourism sector and rapid growth of international currency from tourism and leisure industry (Banaszkiewicz, Graburn, & Owsianowska, 2017, p. 113). As Hall indicates "...the desire of many of the new, often relatively small, independent states [to perform own identity] ... international tourism and marketing imagery has been one vehicle through which this identity has sought expression" (2000, p.442).

Georgia is a country with slightly more than 3.700.000 population (the census of 2014). It is situated in the Caucasus on the land bridge connecting the Black and Caspian Seas and occupies 69,7 thousand square km. Georgia is not a new player in tourism industry. It is a country of remarkable natural beauty and abundant recreation resources. During Soviet times, it had evolved into a preferred destination for visitors from Soviet republics and the Eastern Block. Georgia's pleasant climate, delightful cuisine (including abundant Mediterranean crops), mineral springs and spas, outdoor recreation opportunities paired with the hospitality of local people attracted millions of visitors to the country each year. During the Soviet era, Georgia was consequently better off than most other Soviet republics. However, with the break-up of the Soviet empire the country all but lost its economic ties and a huge tourist market.

After a period of economic decline, the country's tourism sector experiences positive structural changes; however, it still faces some challenges regarding the adaptation to new demands of international market. Taking into consideration Georgia's natural (extremely rich recreational resources but vulnerable regions to natural disasters), economic (inequality of regional development), social environment (large number of self-employed population),

sustainable tourism should be defined as the main strategy for the field development (“Regional Development Program of Georgia 2015-2017”).

After the 1990s in many CEE and CIS countries’ ruling authorities became reluctant to invest in tourism industry, while others succeeded. As transformation in former socialist states turned out to develop side by side with a global growing demand for niche tourism which provides good opportunities for small businesses and indigenous communities, some local governments with cooperation of proactive groups, international NGOs and private sectors succeeded to develop this trend (Hall, 2000, p. 447-448) for attaining sustainable development goals. We consider that our case study of Prometheus karst cave tourist site is the appropriate example of a such fruitful cooperation. The destination received substantial promotion in recent years with professional marketing undertaken by local and central government, international NGOs and private sector.

THEORETICAL CONCEPTS, RESEARCH GOAL, WORKING HYPOTHESIS, DATA AND METHODS

In our research we refer to Balanced and Unbalanced Growth Theories and Theory of Coordination Failure to test our case study of the Prometheus cave tourist destination in post-Soviet Georgia.

According to *balanced growth theory*, in developing countries where the economy is weak, it is impossible to overcome stagnation by investing in a few sectors. Investments in a certain field without complex development of a whole system would not be viable. The alternative approach of *unbalanced growth* implies to invest in a few leading sectors of a developing economy that will work as a catalyst to drag other sectors with it (Cooper, Fletcher, Fyall, Gilbert, & Wanhill, 2008, p.248).

The adherents of the *coordination failure theory* compare the economy to an ecosystem, arguing that the action of one can affect others. It means that without synchronizing of particular units, the whole system fails to work. However, due to various conditions like economic downturn, unfavorable changes in legal system, etc. to achieve an optimal equilibrium is not always possible. In this case the role of government or international NGOs as a ‘Big push’ to invest is essential. This strategy was suggested by United Nations Development Program (Dong & Sui Pheng, 2015, p.21). For sustainable development goals the basic investments in human capital, management and administration as well as in main infrastructural projects from the side of local government is crucial.

The goal of our research was to determine whether tourism as a field of economy ensures sustainable development on Prometheus karst cave tourist site that is located in the village of Kumistavi, Tskhaltubo municipality (Imereti region) in Western Georgia.

The model of sustainable development of tourism is based on the assessment of positive and negative impacts on economic, socio-cultural and environmental activities. Our *working hypothesis* is that tourism should be a major source of sustainable regional development - employment with positive effects, growth of income, improving quality of life and lowering adverse environmental impacts.

Does the Prometheus cave recreational complex provide better living conditions for the local population and help the low-income families in poverty reduction? What is the scale of the environmental impact and how does the rising number of tourist flows affect the ecosystem's sustainability? Do the benefits created by the tourist sight entail every socio-economic and demographic segment of the local community? What is the level of engagement of indigenous population and how close is the cooperation between government and non-government sectors, private businesses and local community members? In other words, does tourism provide sustainable development of the region. These are the issues the article focuses on.

Our research is based on the *Case Study* method. We have used a qualitative research method, in particular, *in-depth interviews* within 10 km surrounding area of the tourist sight. One of the methods we have also adopted is the method of *stakeholder analysis* as it provides much better picture to study sustainable tourism development. In order to come up with the conclusions and recommendations we refer to *Gap Analysis* method. It shows the difference between the real situation and the desired one ("Need Analysis", 2000). In the paper primary and secondary academic sources are used as well.

Totally, 20 family based and 12 non-family based structures/entities were interviewed and one focus group was held. The study was conducted in September-November 2018. Our strategy of survey was aimed at researching the roles and activities of government, international NGOs, private business representatives and the local community members involved in the tourism sector.

RESULTS AND DISCUSSION

About the Studied Area

After recognizing the cave as a Natural Monument in 2007, with the initiative of the state and the aid of the private investor in order to turn the site into a tourist place (named Prometheus

Cave), the preservation and infrastructural works began. This process was supposed to attract international tourists as well as boost the economic activity of the local population and to support their employment. The project has been successfully implemented and started receiving its first visitors since 2011. The Prometheus cave has acquired an attractive touristic image as indicated by the growing number of visitors. According to the statistical data, it is the most visited tourist destination in Georgia (Agency of Protected Areas, 2019).

After the completion of needed works the village infrastructure as well as the economic and social conditions of the residents has significantly improved; this effort was marked with sharp decline of wood cutting in surrounding forests as well. The sustainable growth of tourism flows helped with the trade of locally produced goods, employing villagers on stable jobs and lowering the population outflow to some extent.

Village Kumistavi occupies the Tskaltubo wavy valley in the gorge of the river Kumi, 220 m. above sea level. The karst sight is developed in Lower Cretaceous limestone. At the depth of 60 m from its main entrance, the siphonal lake is located, from which flows out the river Kumi (Georgian Soviet Encyclopedia, 1986, p. 663). The cave takes the area of 46,6 hectares, ceiling height is 20-25 m. and the length of the tourist trail is 1420 m. The cave consists of 17 chambers of different sizes and is rich with speleothems like spheres, curtain style, wavy stalactites, stone waterfalls, cave pearls. At the exit of the cave on the Kumi river the boat route is possible to take for tourists (“kumistavi”, 2019). Outside of the cave the green landscape is represented by relict Kolkhic forest with beech, chestnut, elm, hornbeam, buck, oak, and linden.

The population of the village of Kumistavi, represented by 490 households (according to the Public Registry data), though part of them are non-permanent residents and visit their properties only seasonally. The village is not distinguished with fertile lands and pastures; the area suitable for cultivating is relatively small and the relief mainly is occupied by badlands. The main direction of agriculture is traditionally, corn (maize) farming and poultry. Some families have cattle or have taken up beekeeping but the income is scarce. Involvement of local population in tourism has created the main source of income for most households. In this regard our project aims to study how tourism contributes in overcoming poverty in the given community and provides sustainable development.

Stakeholder Analysis

The issue of development of a region is complex by its character and structure which requires the involvement of different disciplines and regional actors to solve the problem. This process

of selection and integration of participants is known as the *transdisciplinary* approach (Muhar, Vilsmaier, Glanzer & Freyer. (2017). While studying the region the selection of participating entities i.e. stakeholders and their influence on economic development of the sector, human resources or geographical environment is the key in achieving correct results. Stakeholders - government entities, NGOs, groups of businesses, local residents and tourists are the ones who put their share in tourism development of the region (Cooper, Fletcher, Fyall, Gilbert, & Wanhill, 2008, p. 687). The main essence of the transdisciplinary approach (concept) is to link theoretical knowledge and practice with each other. It aims to get a successful outcome and avoid only parallel development of these two directions (Khelashvili, 2017, p.132-133).

The Role of Government and Non-Government Structures as Stakeholders

The governmental/state structures on the research tourist place are represented by the National Agency of Protected Areas (Administration) and as regional municipality. Administration's responsibility for the management and sustainable tourism development is great. It creates business strategy, conducts professional trainings for guides to provide high quality service to visitors in several languages and sets a monitoring unit to take care of natural and technical infrastructure; also, communicates with villagers for their engagement in the decision-making process. The administration is responsible for the safety of staff and tourists as well as ensures private businesses' (food and overnight facilities, street vendors) activities within the law.

The role of the municipality was especially important at the initial stage of the Prometheus cave project when the road was constructed and the village was connected to the highway. In addition, a regular municipal transport service was restored to the regional center after for almost two decades when the local population had to walk the distance. Today, the municipality cleaning service provides the removal of garbage from the territory of the tourist sight and provides shuttle service.

The role of the World Bank (WB) as an international financial institution for tourism development in Georgia is very important. Imereti, the region where the Prometheus cave tourist complex is located is rich with natural monuments, cultural heritage site and protected areas. The project of Imereti Development Strategy that started couple years ago by WB with cooperation of the government of Georgia was aimed to improve infrastructure services and institutional capacity to support the increased contribution of tourism to the local economy. The planned activities were intended to benefit the region's residents as well; it was also expected to increase volume of private sector investment for small and micro enterprises in

renovated or new tourist destinations. As a result in Tskaltubo municipality to which village Kumistavi belongs, number of hours per day of running water services increased to 16 and energy efficiency of street lights has improved by 30 percent (WB, 2016, p.9).

Local Population and Private Sector as Stakeholders

To identify impact of tourism on local families in study area we refer to the methodology by C. Ashley on disadvantage rural households. To determine their socio-economic status she uses such criterions as are: regular/no regular wage income, structure of daily meal, land ownership, etc. (2002, p.11). To these indicators we added our own, like: access to medical services and medications, number of employed family members and diversification of labor activities and income, skills, amount of seasonal harvest and its structure (for consumption purpose or commercial/commodity production), access to bank loans and ability to run/possess business. These indicators enabled us to study the diversified impact of tourism on families of different socio-economic background. Finally, according to abovementioned methodology we classified and attributed respondent households to four types of groups: 'poor' (20 percent of the total poll), 'less poor' (40 percent), 'relatively non-poor' (30 percent) and 'non-poor' (10 percent).

We defined households as '*Poor*' who has a small orchard and small plot of land (maize-field), money earned from selling the harvest is enough for 3-4 months, they couldn't afford to keep cattle but only poultry mainly for personal consumption, one of the unskilled members of a family is a breadwinner and is employed on the cave tourist sight with stable salary; in case of health problems medical expenses are a heavy burden; if a household gets a loan from the bank the breadwinner provides return on monthly basis; these families don't receive remittances and income from tourism is basic.

'*Less poor*' families have diversified incomes from stable or casual work (e.g. one skilled or unskilled member employed on the cave tourist sight with stable salary, the other is busy with farm products or souvenir selling on the local market and one more member is leading the family by farming - beekeeping, grape growing, cattle raising, dairy product producing or renting the yard to a group of visitors for picnic. Most of this type of households own a plot of land (maize-field) and the harvest is enough almost for an entire year.

'*Relatively non-poor*' families have stable income from permanent skilled job (guides, rangers, administration officials) from the cave tourist sight, small family business (rent rooms to tourists); income from the business is enough during the off-seasonal period; they

pay for bank loans, family business lead by farming and some of them in addition, receive remittances.

'Non-poor' households mainly are not local residents but employ the villagers to run their businesses, own a café/restaurant or a hotel/guest house.

The results of our research revealed that:

'Relatively non-poor' families benefit most from tourism industry. All their abilities - skills and knowledge, possession of resources (monetary and non-monetary), former experience to run business, etc., a family members invested in tourism. The abilities of these households turned out to be the most adequate for new demands.

'Less-poor' families in less extent but benefit as well. Their motivation for income diversification helps them to meet demands and expectations of the tourist market. We think that suspending of women outmigration for seasonal farm works to neighboring Turkey is the most valuable result.

'Non-poor' families are not the main beneficiaries of the tourist business. They have invested much (finances), however the pretty expensive infrastructure and a poor management (no contacts with tour operators and waiting for an occasional visitors) doesn't guarantee the adequate income.

'Poor' households benefit the least. As family members couldn't suggest anything to the tourist market (monetary and non-monetary resources) and have some other problems, family member's salary is the only income for them. However, the latter result for the unskilled workforce should be assessed positively.

Our research revealed that the owners of individual private businesses lack information on the existing marketing situation, in particular, on the tourists' demands. Business owners and managers complain about a small number of tourists in catering facilities while visitor flows are growing annually. Several cafés and restaurants that are well off and function successfully rely on their own network of consumers other than tourists. Their business is led by these experiences and the own social resources.

Environmental Issues

After conferring the status of a protected territory, on the cave site the surrounding forests became defended from wood cutting. However, according to our survey results one of the main environmental problems on the destination is air pollution with emitted gases from concentrated vehicles on the parking lot. This area is adjacent to very densely populated residential neighborhood in the village. From polluted air suffer both villagers and

surrounding ecosystem. It happens mainly because of one hour waiting time (in average) of tourist buses on the destination. During the hot season drivers keep engine on for conditioning (approximately 1500-2000 tourists visit the place per day). The noise pollution is additional discomfort for locals. We consider that the electronic system of reservation can regulate tourist flows and more or less lift the existing situation.

More attention should be paid to waste management in the village. As the quite broad area in the region (whole territory of Tskaltubo municipality and not only) is occupied by karst relief, sinkholes are outspread widely. They form dolines on the surface and caves under the ground. Local population usually use dolines as a garbage dump that courses pollution of ground water. It is believed that in future the region with its unique and abundant karst places will attract speleology professionals and amateur tourists for adventure tours. However, today's negligence will cut a way for future benefits.

Along with the attractiveness of the Prometheus cave recreational complex we find its easy accessibility quite important as well. These circumstances have been crucial for attracting visitors and first of all should be considered for maintaining ecological balance. These factors, on the one hand, contribute to the popularity of the complex, but on the other increase the magnitude of anthropogenic impact.

CONCLUSIONS AND RECOMMENDATIONS

1. Thus, we can conclude that the project of Prometheus cave tourist destination is intended for broad tourism development in the region in which support of local community members is implicit ('trickle-down' effect (Ashly, 2002, p.17). However, it is impossible for indigenous to get benefits without successful development of the whole tourist destination. In our research we tried to look at the effectiveness of this phenomenon within the broader project.

2. The case study of Prometheus cave recreational complex fits well the *Unbalanced Growth* and *Coordination Failure ('Big Push')* theories. As we have seen, in general, the development of the tourism sector is conducive for stimulating small businesses development in the region. The government intervention (infrastructure projects and management) has greatly improved transportation, employment and social activity for the population;

3. The research hypothesis was partially proved. Although the economic and ecological situation of the region has improved with more employment opportunities for villagers and reduction in wood cutting, the growing tourist flows have endangered the sustainability of an ecosystem that was not previously threatened (atmospheric air);

4. Based on the concept of sustainable development if critically review the results, it would appear that ‘*relatively non-poor*’ households are the ones who benefit the most, those who have the initial cash and non-cash capital, offered it to the tourist market and therefore responded to demands of consumers. The problem has been identified as with the ‘*poor*’ the lack of knowledge, skills and finances. As for ‘*non-poor*’ the private business is built solely through personal former commercial experience (and not in tourism) and only occasionally justifies. It is not uncommon for ‘*less poor*’ household to possess some resources but scant vision or ability to use it purposefully for tourism. In such a situation the population is very cautious about the venture of small business. However, their desire and readiness to receive appropriate counseling on starting and running a business is great but such an offer does not exist neither from the governmental side (cave administration) or of NGOs;

5. If the during the nearest period of time the direction of tourist activities and flows will not be distributed on other potentially interesting speleological attractions (the number of which is quite big and awaiting for advertisement and infrastructural improvement), the anthropogenic pressure will damage both the Prometheus cave natural complex as well as tourism sector with its associated effect of sustainable development. We consider that latter is a very valuable achievement on the part of Georgian state, international NGOs and people.

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The Influence of Territorial Administrative Reform in Albania in Increasing the Local Governance Competences: Durrës Case

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Marsida Ismaili²

ABSTRACT: Following the trend of other European countries, in 2014 Albania started the implementation of Territorial Administrative Reform, initiated by the Law 115/2014 “On administrative-territorial division units of local government in the Republic of Albania”. The reform changes the map of territorial division of Albania by establishing a two-tier governance system. It makes significant changes to the first level of the local government decreasing the number of local government units from 373 very fragmented communes and municipalities to just 61 larger municipalities. Focused on improving the quality of local public services by increasing their efficiency, and increasing citizens' access to local public services, the Territorial-Administrative Reform aims to empower local and regional governments by decentralizing more functions and competencies and allocating more public funds to them.

The aim of this paper is the analysis of functions and competencies of the Local Government Units: how have they changed as a result of the reform, how these functions have to be performed, how are they financed and which are the main results up to now. The empirical data are taken into account, as well as a statistical analysis of these data. Combined research methods have been used (both qualitative and quantitative data) for gathering information related to Local Government Expenses. The Law 139/2015 “On Local Self-Government” is the main base for these analyses. The paper is focused on the analysis of the local government expenditures by functional classification (COFOG) for the period 2010-2018. Comparing the data of the Municipality of Durrës to the data of all other local government units in Albania, it is noticed that despite the larger size of local government units, operational efficiency was not achieved. The Municipality allocated additional funds for the delivery of new functions, as specific transfer funding was insufficient. This is a general trend in the country.

Keywords: Territorial-Administrative Reform; local governance; functional classification; local expenditures.

JEL: H7, H2, E60.

INTRODUCTION

One of the most important innovation of 20th century was the democratization of the countries, by the consolidation of the local levels of government, all over the world, especially in North America and Europe. Following this trend, in 2014 Albania started the implementation of the Law 115/2014, “On administrative-territorial divisions units of local government in the Republic of Albania”.

The drafting and implementation of administrative-territorial reform is based on and conceived on the basis of the legal framework, such as the Constitution of Albania; European Charter for Local Self-Government; Law 8652 dt.31.7.2000 "On the organization and functioning of local government in Albania"; Law 8653, dt.31.7.2000 "On the administrative-

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territorial division in the Republic of Albania", DCM Nr.1012 dt.22.11.2013 "On defining the scope of state responsibility of the Minister of State for Local Issues"; Recommendation of the Committee of Ministers of the Council of Europe REC (2004) 12 "On the process of border reform and / or the structures of local and regional authorities"; law115/2014.

The implementation of this reform, organized local government units into 61 municipalities with a two tier-system. The previous organization of the country, counted 37. The new territorial organization aims to empower the new larger municipalities, by enhancing their capability to provide high quality and timely services to citizens and increasing the efficiency of local governments' resource management. These could be reached by improving services for citizens at the local level.

The Administrative-Territorial Reform goal was to lead to local government units enhanced administrative, professional, and technical efficiency to deliver modern and qualitative services for citizens. The administrative units (ex-communes) will continue to offer basic services for every citizen of the new municipalities.

The Administrative Territorial Reform in Albania was considered necessary by many national and international actors. This was even underlined by the internal political factor, based on the recommendation of different international organizations.

RELEVANT LITERATURE OF THE RESEARCH

Local self-government units exercise functions, competencies, and functions delegated. Functions are recognized to the units of local self-government by the law 139/2015. Other functions or competences can be recognized by one, some or all of the units of local self-government only on the basis of law. Delegated functions are transferred to local self-government units by law or by agreement. In any case, the delegation of functions is accompanied by sufficient transfers from central government to finance the cost of exercising these functions. Local self - government units shall regulate and administer the exercise of their functions fully and independently, in accordance with the Constitution, the European Charter of Autonomy Local and other applicable laws.

In the same time, local self-government units exercise their functions while respecting national, regional and local policies. For these functions, central government can establish specific standards and norms in order to preserve national interests and to provide quality services. In cases where local self-government units do not own the funds or sufficient funds for reaching national standards and norms, central government gives them the necessary support in regard with the financial resources. Law no. 139/2015 "On" Local Self-

Government "recognizes 6 new municipal competencies, which affect more the managerial aspects than public service delivery.

When local self-government unit exercise delegated functions, central government provides sufficient financial and other resources to exercise these functions in the manner and level or the standard, which is defined by law. The municipalities exercise their functions in different fields.

Functions of municipalities in the field of infrastructure and public services

In the field of infrastructure and public services, municipalities are responsible in the territory of

their jurisdiction for the production, treatment, transmission and supply of drinking water; collection, removal and treatment of wastewater; collection and removal of rainwater and flood protection in residential areas; construction, rehabilitation and maintenance of local roads and road signaling, sidewalks and public squares; lighting of Public Premises; Local public transport; construction, rehabilitation and maintenance of public cemeteries, and the provision of service public funeral; Public décor service; Parks, gardens and public green spaces; collection, removal and treatment of solid and household waste; construction, rehabilitation and maintenance of educational buildings of the pre-university school system, with the exception of vocational schools; administering and regulating the pre-school education system in kindergartens; construction, rehabilitation and maintenance of primary health care facilities and development of promotional activities at the local level, which are related to the protection of health, as well as the administration of centers and other services in the field of public health, in the manner prescribed by law; planning, administering, developing and controlling the territory, in the defined manner by law.

Municipal functions in the field of social services

Municipalities are responsible for the offering of these functions, such as the creation and administration of social services at the local level, for those in need, persons with disabilities, children, women, women headed households, raped women, victims of trafficking, mothers or parents with many children, the elderly, etc., in the manner prescribed by law; construction and administration of social housing; construction and administration of centers for provision of local social services; creation, in cooperation with the ministry responsible for social welfare, of the social fund for the financing of services.

Functions of municipalities in the field of culture, sport and entertainment services

In this field, municipalities are responsible for the performance of these functions: development, protection and promotion of values and cultural heritage of local interest, as well as the administration of objects related to the exercise of these functions; organizing cultural activities and promoting national and local identity as well the management of objects related to the exercise of these functions; development, protection and promotion of libraries and reading facilities, with purpose general education of citizens; organization of sports, recreational and entertainment activities, development and administration of institutions and facilities related to the exercise of these functions.

Municipal functions in the field of environmental protection

Municipalities have to ensure, at the local level, the measures for the protection of air, soil and water quality from pollution; ensure, at the local level, measures for the protection against acoustic pollution; development of educational and promotional activities at the local level, which are related to environment protection.

The functions of the municipalities in the field of agriculture, rural development, forests and pastures, nature and biodiversity

Municipalities are responsible for the performance of the following functions: administration, use and maintenance of irrigation and drainage infrastructure, transferred to their ownership, in the manner prescribed by law. administration and protection of agricultural lands and other categories of resources, such as land fruitless, etc., in the manner prescribed by law; creation and administration of the local information and agricultural and rural advisory system, according to the legislation in force; creation and administration of local grant schemes for agriculture and rural development; funded from the local budget and / or co - financed by third parties, ensuring access to gender balanced; administration of public forest and pasture fund, according to the legislation in force; protection of nature and biodiversity, according to the legislation in force.

Municipal functions in the field of local economic development

Municipal functions in the field of local economic development are concentrated in the strategic development plans and programs for local economic development; establishment and functioning of public markets and trade network; support for small business development, through incentive activities, such as fairs advertising in public places; organization of services in support of local economic development, such as information on businesses, promotional activities, making publicly available assets, etc.; publication of informative brochures,

creation of portals with economic profile etc.; providing financial grants to support small and medium business activities, according to the manner defined in the legislation in force, and for ensuring gender balanced access.

Municipal functions in the field of public security

The municipalities are responsible for guaranteeing the functions of civil defense, at the local level, and administration of relevant structures, by the way defined by law; guaranteeing firefighting service at local level, and structure management; guaranteeing the relationships in the community, prevention and mediation, and conflict resolution in the community; preventing administrative abuses; strengthening, inspecting and monitoring the implementation of regulations and acts of local self-government units within their jurisdiction local and in accordance with legal definitions.

Delegated functions and powers are mandatory or non-mandatory. Mandatory functions and competencies are those defined by law. Central institutions, where permitted by law, authorize the municipality or district to perform certain functions and by defining, where necessary, the procedures of performing and controlling for their correct implementation. Central institutions may authorize the municipality and / or county to exercise one single competence for a particular function.

EXPLANATION OF METHODOLOGY

The methodology used in this article is both qualitative and quantitative. The qualitative data are used to explain the competences and the functions of the Municipalities and how they have changed due to the implementation of the Territorial Administrative Reform. There is an interpretation of these competences and which are the specific fields that they cover. This is important to understand how is changed the role of local governance and which are the fields that LGU-s applied their power. Based on the empirical data obtained from the Government Financial Management Information System (Online Treasury System, OTS), at the Ministry of Finance and Economy, which have been processed and subsequently published on the www.financatvendore.al (2018 Status Report) platform, for the period 2010-2018, it is performed a quantitative analyses in order to explain how this reform has influenced the daily activities of Local Government Units. The chosen period is considered necessary to understand the trend of the competences and their fulfillment, before and after the implementation of the reform. By the other hand, it was taken in consideration the data for

Durrës Municipality and all the local government units, by comparing the case of Durrës in the Albanian context.

Consolidated data are cumulative (or end-of-period stock) and denominated in local currency (ALL). They refer only to 61 municipalities, without including the 12 districts in the analysis. The data from 373 local self-government units, collected during the period 2010-2015, are re-classified at the level of the present 61 municipalities. This makes possible the historical comparisons of the results before and after the implementation of the territorial and administrative reform (TAR).

DATA USE AND SOURCE

As explained above, the aim of this research is the analysis of functions and competencies of the Local Government Units, by exploring and analyzing how have they changed as a result of the reform, how these functions have to be performed, how are they financed and which are the main results up to now.

The Law 139/2015 “On Local Self-Government”, which regulates the organization and functioning of units of local self-government in the Republic of Albania, as well as defines their functions, powers, rights and duties and respective bodies, as the main base for these analyses. Local self-government in the Republic of Albania has the power to ensure effective, efficient and at the same level local public services, through the recognition of the existence of different identities and values of communities; respect for the fundamental rights and freedoms of citizens sanctioned in the Constitution or in other laws; choice of different types of services and other local public facilities for the benefit of the community; the effective exercise of the functions, competences and performance of tasks by the local self-government bodies; public services’ offering in appropriate forms, based on the needs of members of the community; effective promotion of the community's comprehensive participation in local government; service delivery, in accordance with the standards required by law or other normative acts. The local self-government focuses on the principle of local autonomy. Also, in their activity, local self-government units respect and apply the Constitution, laws and sub-legal acts. They are public legal persons.

National financial policies guarantee the financial sufficiency and stability of local self-government units and are based on the principle of the diversity of sources of income. Functions and competencies delegated to local self-government units are always accompanied by the necessary financial means for their implementation. Local government units are funded by revenues from taxes, fees and other local revenues, from funds transferred from central

government and funds directly attributable to them, by dividing national taxes and levies, local borrowing, donations, and other sources provided by law. Local government units are legally guaranteed the right to generate income independently. If changes in fiscal policy are associated with lower levels, rates and local tax base or the share of local government revenues from separate taxes, the Ministry of Finance is obliged to take measures to offset compensation through increasing financial transfers and opportunities for local borrowing and / or other forms. Each local self-government unit prepares, approves, implements and administers its budget every year, without a deficit, and in compliance with the applicable legislation governing the administration and implementation of the budget system and the law on local finances.

Local government units perform expenditures according to the legal and sub-legal acts in force (local budget) in accordance with the principles of fiscal discipline, financial management and control, and the effective use, efficiency and economy of their financial resources. Own revenues of local self-government units that have not been spent within the fiscal year are inherited in the next fiscal year. Upon the official approval of the budget, the mayor may authorize or request the authorization of the council for redistribution of funds within and among the various budget programs. The conditional transfer provided by central government cannot be used for any purpose other than those specified in the grant or transfer.

DESCRIPTION OF THE RESULTS

A very important aspect of local public financial management is the use of available financial resources. Local government expenditures accounted only 17.3% of central government total expenditures in 2018. In the last years this ratio have a slight improvement (comparing with 15.9% in 2016), showing that the influence of central government is really strong.

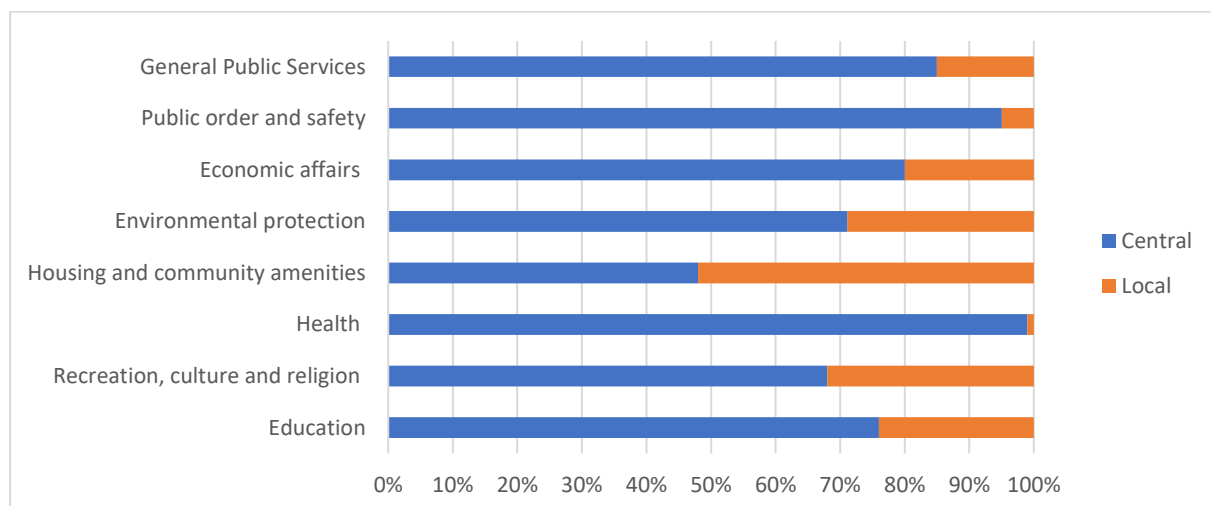
On average, in Albania, local government channels over 70% of total financial resources to cover current expenditures and about 30% for capital expenditures. Capital expenditures incurred by local government accounted for about 1.4% of nominal GDP in 2018, marking a decrease of about 0.3 percentage points compared to its level in the previous year.

Based on the information sourced by Government Financial Management Information System (Online Treasury System, OTS), at the Ministry of Finance and Economy, which have been processed and subsequently published on <http://financatvendore.al/> (2018 Status Report) in Albania the financial revenues of local governments are distributed 70% to cover the current or operative expenditures and only 30% for capital expenditures.

The way how local and central governments share functions and powers is demonstrated by the allocation of expenditures, measured by the percentage of expenditures incurred by each level of government by function, according to the COFOG classification.

Based on the chart below, it is noted that the share of local government appears considerably lower than that of central government. The main services when local government units exercise broader competencies are housing and community commodities (about 54.2% of expenditures are incurred by local government) and in the framework of recreation, culture and religious affairs (about 34.8% of expenditures are incurred by local government).

FIGURE 1
Allocation of Expenditures by Functions



Making an analysis how Durrës Municipality and all the Local Government Units have allocated their Expenditures based on the Functional Classification (COFOG), Durrës Municipality seems to be more linear in allocating funds during years, instead of fluctuations of other LGU-s distributions. The functional allocation of expenditures in all LGU-s had a decrease in 2012 (10.825.437.320 ALL and, than a constant increase up to 2017 (26.505.775.320 ALL). During 2018 there is a reduction of 13% compared with 2017. The allocation of expenditures by functions in Durrës municipality followed the same decreasing trend in 2012 and 2013, but the following years registered a straight line, with slight fluctuations.

FIGURE 2
Functional Allocation of Expenditures of Durrës Municipality vs LGU-s

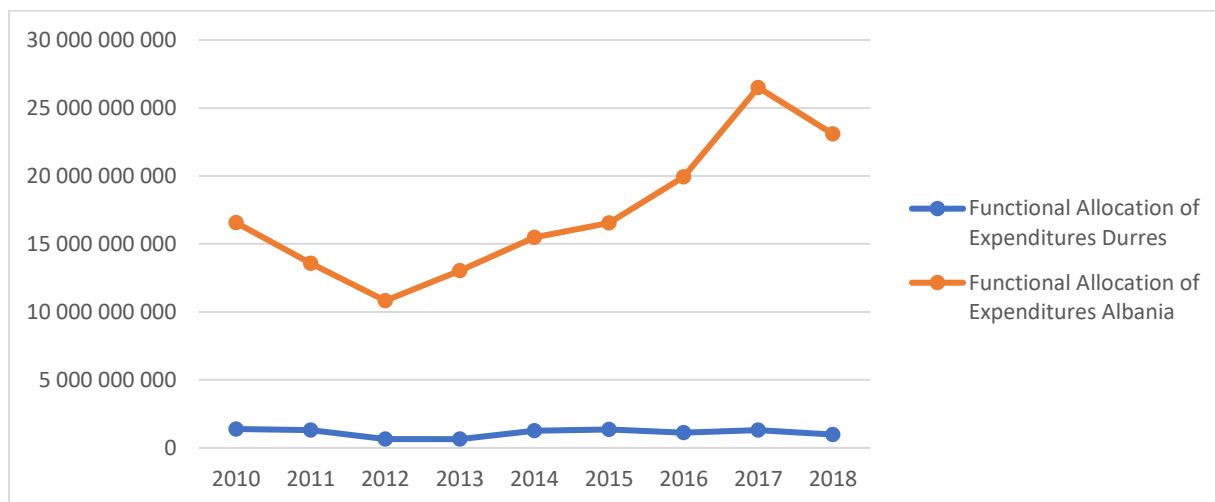
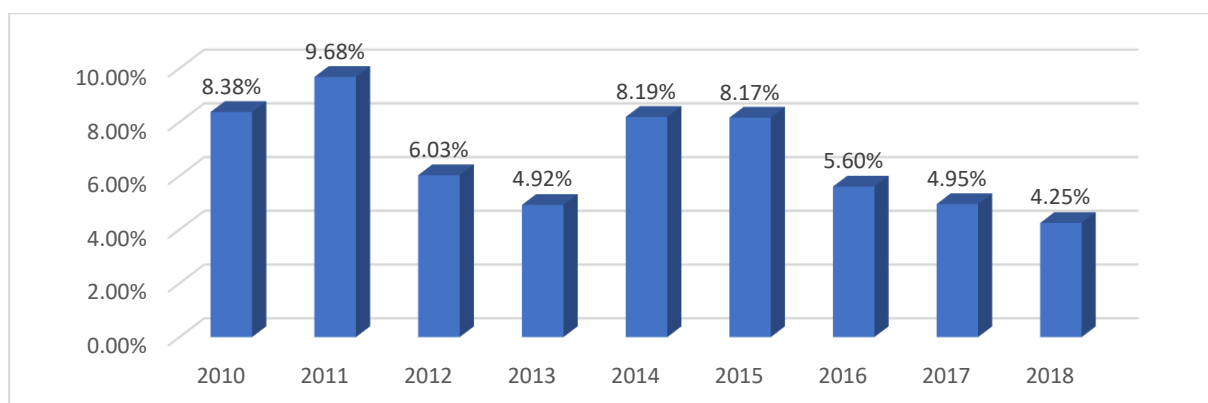


Figure 3 shows the volumes of expenditures of Durrës Municipality compared with the total expenditures of LGU-s. Making an analysis of expenses of the municipality of Durres by COFOG, during 2010-2018, we note that there is a decrease during years, compared with the total expenses in all Albanian municipalities. From 2015, which is the year when TAR started the implementation, there is a constant decrease, passing from 8.2 to 4.25 percent in 2018. This means that TAR has not contributed in offering more services or allocated more funds for the local government.

FIGURE 3

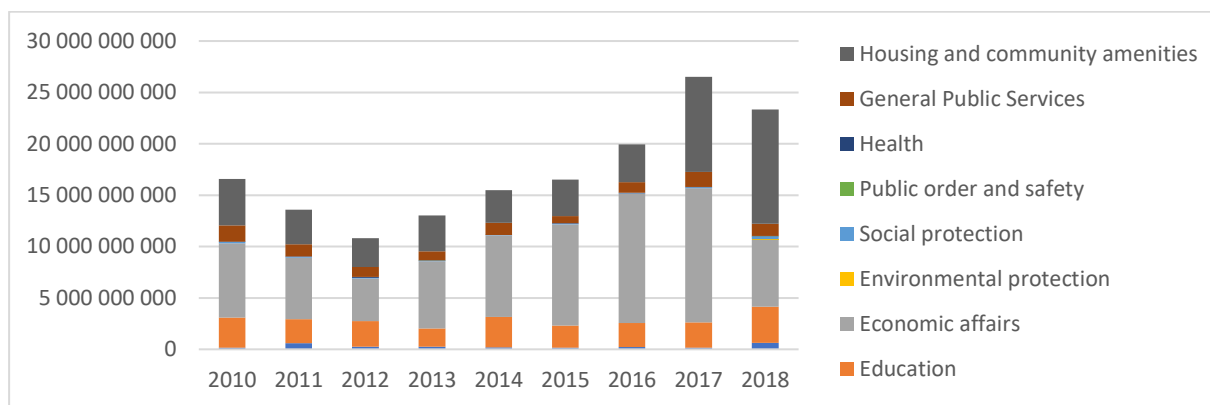


Expenditures of Functional Classification of Durrës Municipality are financed in 60 percent by own sources and around 40 percent by conditional transfers. The LGU-s finances are at the level of 41 percent by conditional transfers and around 59 percent with own sources. (Table 1)

TABLE 1
Expenditures by functional classification and source of funding

	Durrës Municipality	LGU-s
Conditional	1,497,396,030	33,860,310,617
	39.71%	41.22%
Own sources	2,273,301,106	48,288,140,283
	60.29%	58.78%

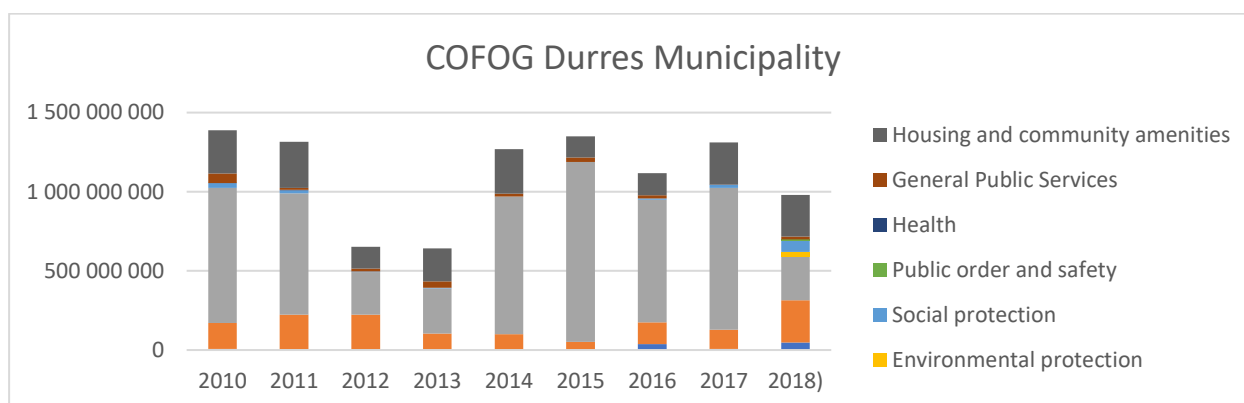
FIGURE 4
LGUs Expenditures according to government functions



Making an analysis of expenditures by functional classification, it can be noticed that function of “Housing and community amenities”, function of “Education” and function of “Economic affairs” take more than 85 percent of funds, letting only 10 percent to the other six functions. This phenomena has a slight improvement before and after implementation of TAR, but it is not so significant. The same trend can be noticed in Durrës municipality performance, too. So, in 2013, LGU-s directed 90 percent of their funds towards the 3 mentioned functions compared with 8 percent in 2018. Durrës municipality directed 82 percent of funds in the 3 mentioned functions increasing in 92 percent in 2018.

It has to be mentioned that the function of “Environmental protection” has been out of municipalities’ attention, since no funds at all were dedicated to this function. Only in 2018, Durrës Municipality directed 29.762.260 ALL, or 3 percent of funds, to “Environmental protection”, being the first municipality in Albania which allocated some funds to this function. The expenditures for functions of “Health” and “Public order and safety” are very low too, in all LGU-s and in Durrës municipality, 0.84 percent of expenditures in 2018 in Durrës versus 0.09 percent in the same year in all LGUs.

FIGURE 5
Durrës Municipality' expenditures according government functions



CONCLUSIONS

- 1- The local government unit expenditures continue to cover mostly the current expenditures (personnel and operational expenditures – around 70% of expenditures) as before the implementation of TAR.
- 2- There is a disproportional distribution of funds between functions (6 functions received around 10 percent of total funds compared with 90% allocated to only 3 functions), risking the offering of all services to the citizens.
- 3- The transfer of new functions to local government do not support one of the main basic arguments of the administrative and territorial reform: increasing efficiency in the provision of public services, since there is not significant improvement in offering the new functions by local government.
- 4- It appears difficult to assess if the increase of the current expenditures has been translated into better services for citizens.

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The Challenges of Local Government Management for New Public Services. Case Study – Municipality of Korca, Albania

Eva Dhimitri¹

ABSTRACT: *Innovation in the public sector is the focus of government work around the world over the last decade, helping to resolve issues and prioritize the public sector of many developed countries. New ideas should be a core public sector activity because it helps in delivering public services by improving the organization's performance, responding to the expectations of citizens with quality services, impacting on increasing service efficiency and minimizing costs. This paper suggests a framework of thinking and action by local government units in promoting and implementing new ideas. Promoting innovation from all levels of government is important to have continuous development and improvement of processes in providing community services. If public organizations do not develop new innovative ideas in line with the environment they operate, there is a possibility that these organizations will fail in the market. The aim of this study is to show the role of new innovative ideas in the delivery of public services and what are the difficulties and challenges of their management. Focus of the paper is Municipality of Korca, Albania. Some research questions are: Do new ideas affect the performance of a public organization? How do innovative ideas affect the quality of services provided to local government units?*

Keywords: *public services; innovation; public management; local government.*

JEL: *H7; O35; R5.*

INTRODUCTION

The ability to innovate was always one factor that contributed to the success of an organization. Organizations that dispose of the necessary resources, of a powerful motivation to innovate and of an organizational climate that would allow and encourage innovative ideas, are exactly those which will innovate quickly and successfully. The ability to develop new ideas and innovation has become a priority for many organizations. Intense global competition and technological development have made innovation be a source of competitive advantage. Promoting innovation from all levels of government is important to have continuous development and improvement of processes in providing community services. If public organizations do not develop new innovative ideas in line with the environment they operate, there is a possibility that these organizations will fail in the market.

CONCEPT OF INNOVATION

Research on innovation has addressed a number of ways, such as using levels of innovation in individuals, teams / projects or organizations, or by the intensity of innovation. Joseph Schumpeter (1930) “Introducing a new product or modifications brought to an existing product; A new process of innovation in an industry; The discovery of a new market;

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Developing new sources of supply with raw materials; Other changes in the organization.” Peter Drucker (1954) “One of the two basic functions of an organization.” Kenneth Simmonds (1986) “Innovations are new ideas that consist of: new products and services, new use of existing products, new markets for existing products or new marketing methods.”, “Innovation can be defined as a process that provides added value and a degree of novelty to the organization, suppliers and customers, developing new procedures, solutions, products and services and new ways of marketing.” Innovation, as a result of the innovation process is strongly affected by how organizations define the concept of innovation. The administrative innovations involve organizational structure and administrative processes. These innovations are indirectly related to basic activities of the organization and more directly to the management of those activities (Damanpour and Evan, 1984). Administrative innovations are facilitated by low levels of professionalism, high formalization and high centralization. Product innovations are represented by the new products or services introduced to meet the needs of the market. Such innovations are reflected in new products or services on the market to the benefit of customers (Knight, 1967, Utterback and Abernathy, 1975). Process innovations are new elements introduced in the various processes carried out at the level of the organization. The adoption of product innovations and the process are different in various stages of the organization development. Radical innovations are represented by the fundamental re-conceptualizing of a business. This type of innovation can be approached on three levels: product (new ideas or technology), process (new methods of product and services delivery to consumers) and the combination of the two levels mentioned above (Tushman and Nadler, 1986). The incremental innovation refers to improving products, services and the existing processes. The architectural innovation (Henderson, Clark, 1990) is the kind of innovation that changes only the architecture of a product without influencing its components.

Another classification of innovation is given by Thompson (2004): creative innovation – adoptive innovation. Creative innovation refers to the ability of the organization to implement and carry out technological innovation through its own system, usually materializing in new products or services. Adoptive innovation refers to the ability to use new ideas from outside the organization, adapting those ideas to implement change in the management system of the organization or in the relationship between the system’s components. An adoptive approach to innovation is addressed mainly to areas such as strategy or management by processes leading to new strategies, to a new company image or to new organizational structures.

The stages of the process of adopting innovation are: stage of knowledge gathering stage of persuasion, stage of decisionmaking, adoption stage of confirmation. In the initial stage of the process of adoption, beliefs and perceptions are formed which can then lead to a favorable or unfavorable attitude in the persuasion stage, respectively to a behavioral intention in the stage of decision-making. In the confirmation stage, the decisiontaker adopts a conduct that could be followed by changes in attitude due to trying to reduce the cognitive dissonance effect caused by the adoption of innovation (Drury and Farhoomand, 1999). In the confirmation stage, if earlier expectations do not match the economic, organizational and behavioral level of the actual outcomes of innovation, the decision-maker will try to eliminate the dissonance by changing his/her attitude, actions or even knowledge. Also in this stage innovation may be slightly amended to comply with the needs and with the organizational structure, respectively, the organization's structure may change depending on the innovation adopted (Drury and Farhoomand, 1999). The process of adopting innovations, with its five stages, was an important element in the studies regarding innovation diffusion and implementation. The chronological order of the innovation process is also important.

SOCIAL INNOVATION AND LOCAL DEVELOPMENT

In a review of the literature, Neumeier (2012,) observes that the term social innovation “can refer to the effort, method, result or change initiated by collaborative actions” and distills the following common characteristics of social innovation concepts: They are generated by a social process, rather than invention by an individual. The persons involved in the process perceive them to be new (within their context). They change attitudes, behaviours and perceptions. Their practical implementation appears, to those involved, to be superior to existing methods. They are essentially about creating social assets, rather than material outcomes.

As Mulgan and Pulford (2010,) point out: “Social innovation describes the processes of invention, diffusion and adoption of new services or organisational models ... It also describes the outcome – the service or model being developed.” Thus, social innovation has both a *process* dimension and an *output* dimension. With regard to the former, it is important that the social process is inclusive and collaborative rather than competitive. Social innovations are often generated within distributed social networks, rather than centralised structures (Murray et al. 2010,). With regard to the output dimension:

- Outputs are not just measurable in quantitative terms (costs saved, increased efficiency) but are also qualitative.

- Social innovations are often “innovations that respond to social demands that are traditionally not addressed by the market or existing institutions and are directed towards vulnerable groups in society”
- They tend to address “Societal challenges in which the boundary between ‘social’ and ‘economic’ blurs, and which are directed towards society as a whole and involve end users”
- They can have a wider impact upon society, creating “a more participative arena where empowerment and learning are both sources and outcomes of well-being”

An organizational innovation is the implementation of new methods for organizing or managing work that is different from existing methods in the organization. This includes new or significant improvements to the management systems or organization in the workplace. A communication innovation is the implementation of a new methods of promoting the organization or its services and goods, or new methods to influence the behavior of individuals or others. But in contrast to the ongoing process of public sector improvement, innovation is also giving employees the freedom to explore new methods for continuous improvement. The problems that public sector face today are not the same as they were in the past, creating a culture of innovation in the public sector is actually important. There are some factor that affecting the public sector: financial pressure to reduce costs, increase efficiency, competition, transfer of value, demographic, social and market changes etc.

CONCEPT AND MODELS OF ONE-STOP-SHOPS

The concept refers to the integration and rationalisation of public services from a citizen’s point of view. According to a study on best practices in one-stop services in the United States ‘Under the one-stop paradigm, all of a customer’s business can be completed in a single contact, be it face to face or via phone, fax, Internet or other means. One-stop customers do not have to hunt around, call back, or repeatedly explain their situation. One-stop customer service is convenient, accessible, and personalized. In other words, the key idea behind one-stop-shops is to bring services together under one roof, both in order to share costs and to make it easier for people to access a range of services in one place. Nowadays, public administration offers a broad range of services to the citizens and holds a critical role for providing a stable, secure and sustainable environment for investment, social and economic development and growth. In this context, public administrations around the world try to identify ways to (a) provide high quality services to citizens, and (b) provide services on the basis of cost-efficiency. One of the ways in which governments are seeking to improve public

service provision is to “join-up” various services in one place and adopt a more customer-responsive approach. The main aim behind this idea is: to improve interaction with the citizens; to simplify access to a range of services, regardless of the agencies/services competent for their delivery; to build the provision of services around the needs of citizens. The idea to “join up” services can take many different forms and has been named in many different ways; such initiatives are often called information centers, one-stop-shops, single-windows, integrated services, community service centers, citizens service centers etc. Despite the slight differences that might exist in all these different models, in most cases the basic idea remains the same.

First-stop-shops or information centers have as main purpose the dissemination of information. Consequently, they refer essentially to information counters which guide the citizen to the relevant services based on his or her needs. The information counter can be realized both in a physical location or “virtually”, e.g. online through a web-site or an internet portal. In a strict sense, this is not one -stop service, since at least a second stop will be necessary in order to apply for an administrative service. Under this model, only information is concentrated at one location. One-stop-shops (in a physical location) ideally go beyond single authorities with regard to the fact that many different transactional services, which satisfy the needs of many different categories of citizens, are located in a single office. Therefore the citizen would find in one spot, representatives of the authorities competent for pensions, health, issuance of civil status certificates, tax administration etc. Under this ideal model, representatives of the administration delivering specific services would be concentrated in one location, thus creating a “public administration supermarket”. However, this model is usually extensively complicated to implement. In most cases, and also in the present report, one-stop-shops will be understood to refer to the model where the citizen has a single entry point for his transactions with the public administration. Main administrative procedures covered by information centers and one-stop-shops. The main policy areas, where information centers and one-stop-shop projects are mostly applied are the following: citizen registration and licenses (birth or marriage certificates); car registration; building permits, plant construction permits and real estate matters; business licenses and SME related applications; tax and wage reporting, normally reflecting applications by financial and social security departments to accept online filings; services to Job seekers; general social security, welfare, health, social services etc. Which are the benefits ? Experience shows that the main benefits from initiatives such as information centers and one-stop shops are: -Taking into account the needs of the citizen improves the image of public administration, -Facilitating the

interaction between the citizen and the administration and making it more efficient and effective,-Enabling services to be tailored to local needs and to be provided locally, - Reducing costs and providing economies of scale,- Facilitating co-ordinated service provision, - Allowing for flexibility in the way services are provided,- Cost-efficiency,- More effective and efficient deployment of resources including better coordination between existing governmental systems and processes,-Increased integrity and transparency,-Combining physical convenience and social contact – especially valuable to the more vulnerable members of society.

INFORMATION CENTERS IN ALBANIA. CASE STUDY – MUNICIPALITY OF KORCA

In Albania, information centers do not exist as separate offices or agencies. The function of providing information to the public is carried out in the framework of the public relations department of each social security institution located either at central or at local level. Citizens address these specialized departments in order to acquire information on their rights and the relevant administrative procedures. The competencies of these departments are to provide information to the public on any issue in the field of competence of the institution which corresponds to the users' interests and needs. The information provided, relates mostly to: entitlement to social assistance, social care services and other related benefits; social insurance and health insurance contributions and benefits. Public relations' departments are organized at two levels: at central level and local/regional level. They are part of the central, regional or local administration and they are staffed by civil servants (or staff of the regional or local government, which is assimilated to civil servants). According to the information provided, it appears that the informative role of these departments would need to be strengthened in the following directions: further providing comprehensive information on rights, benefits and other initiatives to the population; providing personalized services to beneficiaries of social security benefits; assisting citizens/social security claimants with complex administrative procedures which involve many institutions and take a long time. Some points considered essential for the operation of one-stop-shops in Albania are the following: One stop shops and information centers should function at the level of local government, their function being supervised by the municipalities. Their funding could originate from a number of sources such as the central administration, the competent line ministries and the municipalities. One stop shops and information centers should be located in a municipality building, situated within the community where the citizens can speak to a

customer service adviser in person with regard to access to services, access information and advice, carry out any other municipal business and self-service unit. One-stop-shop customer service advisers should be especially trained in the wide range of services on offer in order to try to respond to the needs of the people. This means that all services and other requirements from the part of the citizen will be dealt with in one place. One-stop-shops should be in the position to offer advice and services on housing benefits, municipality taxes, education, housing management, different licensing, trading standards, social service - access to children's services, parking etc. Information centers and one stop shops should be organized in the form of a big supermarket where people can cover their need for information, advice and services in one and the same place.

The Municipality of Korça foresees a more efficient and highly visionary model of service delivery to citizens, providing a unified service regardless of their geographical location. The "One Stop Shop" office will centralize and improve services to citizens by avoiding bureaucracies and disputes. Access to services for all citizens is one of the most important tasks of the municipality which takes on another dimension and posits a changed behavior of the municipality after the implementation of the territorial reform. For this reason it is required to adopt a model of a more efficient and visionary model of service delivery to citizens by providing a unified model for all citizens wherever they are, including new administrative units. This office enables all citizens to address all their requests, complaints and applications for services in one place. Access will be fast by all citizens to the service regardless of their geographical location. As part of the establishment of this office, a Manual of Administrative Procedures has been mapped which is an important operational instrument to assist managers and municipal staff to respond to any requests from citizens and businesses.

THE FINDINGS OF SURVEY

The primary research was conducted through questionnaires and interviews. Since people's interviews are part of the research and they are often unpredictable in their behavior, due to the influence of external factors, we have tried to minimize their impact through rigorous choices in the questions asked. Participation was voluntary. All data were treated confidentially and used only for study effects. 50% of the respondents were urban residents and 50% rural residents. Also, 50% were female and 50% male. Interviews conducted with One Stop Shop employees The largest percentage of the sample was with 8/9 years education (65%), high school (20%), university (10%) and postgraduate (5%).

-83%, of responders were "Very satisfied" 15% "satisfied" and only 2% said they were not satisfied with new public services. They didn't specify kind of services. Innovation in itself carries the effect of time; in order for innovation to be successful it must definitely save time and cost for the residents. Respondents answered 86% yes it is true, and 14% no.

- All those who answered 'YES' thought that the digitalized documentation was more efficient as they could see in real time their long-standing complaints or replies. And mostly residents who responded with 'NO' were from rural areas and preferred to have written documentation or direct meetings with designated municipal leaders by administrative division.

-22% of responders answered 'YES' had to go more than once due to lack of documentation of what they were looking for and were mainly services such as certificate for births, social assistance document for target group or persons with disabilities etc. 78% of them answered 'NO' and most of them were residents or small businesses which need to receive mandates for paying local taxes and fees such as green, light, cleaning etc.

- Difficulty of this service is the lack of information about these new innovation programs in our city as many residents are suspicious as a result of their information. For example: the digital archive is operating in rural administrative units such as (Drenove, Bulgarec, Voskop, Lekas Vithkuq, Mollaj etc.) but rural people are unbelieving. They went in center of municipality. Need some time to clarify rural people that the service is the same.

- Time of service is reduced as they receive the information more easily or they receive their local tax payments faster as the purpose of the computerized system is to provide clients right information. Cost of services is reducing in rural areas.

- The services offered in this office are numerous but among the most requested we would list: Installment tax; AMTP (Land Acquisition Act); Certificate of transport permit (people, goods); Specific activity permit; financial assistance for families in need and with disabilities. Some of the services that are rarely requested are: Request for complaint for cleaning and processing of commercial waste; official information on development indicators of the area.

CONCLUSIONS

The field of innovation is very broad. The ability to develop new ideas and innovations has become a priority for many organizations. Intense global competition and technological development have made innovation be a source of competitive advantage. The ability of a company to put forward an idea of a higher value can be a source of competitive advantage

and represents the reason for which a customer may opt for one company to the disadvantage of another. The companies that can create competitive advantage are able to improve their activity by the gained experience, by the acquired knowledge that, over time, may be the sources of distinctive competences on the market. The main reason behind the discussion on information centers and one-stop-shops is the need to ensure the consistent and systematic provision of information to citizens on their rights and to ensure their unimpeded access to benefits and services. One stop shop in local government provides a front office for citizens seeking information or having written or verbal complaints. It is increase the quality of citizens' reception and speed of dealing with their problems.

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The Financial Implications of the Right to be Forgotten

Jorida Xhafaj¹

ABSTRACT: Privacy and the right to control the information about themselves represents a fundamental human right, which has been defined as a notion abreast with the dynamic of the technology development and the digital longevity. The right to be forgotten ensures data subject the right to demand delisting of search results related to for his or her identity, in case of “inadequate, irrelevant or no longer relevant, or excessive in relation to the purposes of the processing at issue carried out by the operator of the search engines”.

The new General Data Protection Regulation does not focus on the economic justification for a right to be forgotten, and the economic impact of the fulfilment of millions of requests, which are increasing continuously.

So, the scope of the paper is to analyse which will the implications for all the controllers, considering the territorial extension of the obligations for every search engine, and also do the benefits from guaranteeing this human right will justify all the efforts and financial costs.

Keywords: economic costs, implications, right to be forgotten

JEL: K36, K39

INTRODUCTION

Issues related to privacy have accompanied the technology developments during the last decades and the data protection framework has been on focus of many studies because of the sensitivity of this topic, and also of the financial impact of the collected personal data in the economic market. The adoption since last year of General Data Protection Regulation (GDPR) is considered a new era for personal data protection. It instructs a baseline set of principles and criteria for companies that control data, aiming to enhance the safeguard mechanisms in the processing and movement of personal data, and also creating a consistent protection of consumer and personal data across EU nations. So, GDPR requirements highlight the main data protection obligations requiring the consent of subjects for data processing, providing data breach notifications, safely handling the transfer of data across borders, requiring certain companies to appoint a data protection officer to oversee GDPR compliance and also the data delisting collected from the past, which is our focus.

The changes that are incorporated in the Regulation attracted the attention of scholars and of the users notably with the focus on requirements for obtaining data subject consent through a “clear affirmative action” (Maldoff, G.,2016) and on the possibility of more control over its data. Also, these new dimensions of data protection definitely have a financial impact,

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which is not always easily measurable. However, we consider that it is significant the detection of indicators that influence market economies from data processing giving us a clearer idea of the economic implication of information privacy.

Particularly, we will evaluate the right to be forgotten financial costs and benefits, which derive from the possibility to control the information about them or in simply due to the digital longevity the possibility to ask for their erasure in case of existence of one of the grounds, foreseen by the GDPR.

It is already known that this fundamental right it is not new one and this concept is based on the idea, defined from Rouvroy and Poulet (2009), for “*self-determination*”, with respect to “*human dignity, personality, reputation, and identity*” (Ambrose, M. L., Ausloos, J., 2013). The right given to the individuals to demand removal of data about themselves in search engines is enforced in case of incomplete or inaccurate nature of the data” (M and S & YS v. Minister voor Immigratie, Integratie en Asiel, C-141/12 and C-372/12, CJEU, 2014) and lack of necessity to keep them online. Based on the Article 17 of the GDPR it is point out not only the right of erasure but also the data subjects obligations of the controller “*to inform third parties which are processing such data that an erasure request has been made, and if the controller has authorized a third party to publish such personal data, the controller remains responsible*”. So, every data subject can apply his right of request for information delisting independently of the area of the world in which his or her data is being processed (Redin, V., 2011). Despite the geographical location of the service provider and the technical ways used to provide the service, operating in the EU market must comply with the rules of GDPR. The empowering the data subject to be attentive and control that the personal data concerning him are correct will have its financial implications, which can be considered from the point of view whether the benefits from guaranteeing this human right will justify all the efforts and financial costs.

FINANCIAL IMPLICATIONS

In this paper, we intend to analyze the financial implications after the reformulation of obligations for realization and the right to erase past information, grouped in some categories. The financial impact addressed above by the researchers is seen in terms of the losses that come from reducing the amount of data available on search engines, however we will address how protecting this right can in fact have a possible positive financial impact.

Search engine's commercial interest

Data is defined as “a catalyst for economic growth, innovation and digitization across all economic sectors” (Martinelli, S., 2016) and based on the idea of new ongoing business model, data is at the center of the future knowledge economy and society ” (European Council 2014)

Living in a “*consumer data-driven and consumer data-focused commercial revolution*”(Acquisti, A., 2010) generating data can be converted in financial incomes, especially when they are used in operations with commercial purposes like e- commerce and bank transactions, marketing, advertising, online services, invention of new products or for research purposes in the health sector. According to Gartner analyst Ted Friedman (2019) the approach to data and analytics strategies will enable companies to accelerate monetization of their information assets. Data monetizing is prioritized strongly by data market enterprises in our days, generating measurable economic benefits in the form of available data sources (analytics) or through monetizing data services (Newman, M., 2018). Data monetization powers the content of data generated through business operations and internet of things in decision making processes or targeted advertising that inverts customer feedback into *product design, improvement of services better organizational management* (OECD Report, 2018) and also in exploitation of the opportunities of digital innovation etc.

So, we consider that the behavior of the users has helped also the increase of prospects of data monetization directly or indirectly. What is important to remind is that the economic impact of the GDPR and especially in relation to the right to be forgotten goes far beyond Europe, even though the GDPR only protects EU citizens. Firstly, the most popular search engines in the world are American and they have already started to reshape their privacy policies and practices to comply with the GDPR. Secondly referring to the Judgment of European Court of Human Rights Google Spain SL, Google Inc. v. Agencia Espanola de Protección de Datos, Mario Costeja Gonzalez (2014) it was confirmed in particular that GDPR extends its territorial reach with two types of business activities. Data controllers and data processors outside of the EU, whose data processing activities are related to goods or services offering to data subject located in the EU (not limited to EU citizens) and activities related to monitoring of the behavior of such data subjects. Thus, such business activities are now also subject to the rules set out in the GDPR and the economic approach of self-control over personal data will be influenced from the territorial spread of this obligation, consequently of the data reduction.

If we refer to the final results of the study for European Data market, the indicators, (data companies and their revenues, data user companies and their spending for data technologies, the market of digital products and services) presents the categories of data as a factor, which influence the economic growth through the power of knowledge reserved from the data analytics. Based on the findings of the mentioned study the value of the data economy is “*expected to increase to € 739 billion by 2020 and the EU data economy with an overall impact of 4% on the EU GDP, categorized by a stronger driving role of digital innovation and with higher overall ICT investments*” (European Commission 2018)

Consequently we join to the opinion of other scholars that the decrease of amount of personal data due to data erasure is a direct loss of benefits, which result from data analytics processes. The relevance of this influence is more perceptible because of the increase number of delisting requests addressed to search engines. Only Google has received 2. 9 million delisting requests and 43% of URLs meet the criteria for delisting the amount of the collected data (Busvine, D., Barzic, G., 2019).

On the other hand it has to be taken under strong consideration the other part of the medallion. Losing from the amount of the collected personal data in case of approved delisting requests of data subjects, will increase the level of transparency over data. Moreover, the transparency will influence positively to the users, gaining more control over personal data and feeling more comfortable about their online behavior, gaining their trust. Being aware on their rights over personal data and their appliance will assure the users on their online behavior and potentially will encourage them on future data sharing. So, normally the restoring effect will influence on the recompense of the amount of data collected from search engines. The natural balance on what we lose and what we gain, that will be more clear in a long term of relations between data subjects and search engines, based on *trust, independence of subjects, free choices of consumers and the impact of the right to be forgotten appliance* (Waelbroeck, P., 2018).

Request processing costs

Privacy and the right of control over personal data represent not only a fundamental human right, but it can be reviewed as a property right. This approach is more common in the American doctrine, where the business model based on personal data analytics has become a relevant source of information to conduct advertising, competitiveness and innovation on new products or services. If we refer to the above section, personal data (even the past one) can be converted in financial benefits, so they can be traded on a market.

The ecosystem of infrastructures and services enabling the targeting, collection, storage and processing of personal data has to meet the requirements of GDPR, creating for the companies a schedule of criteria and standards. They need to invest on human and infrastructure resources aiming to create the necessary data storage processes, concise appliance of privacy policies and upgrading their technology platforms in response of the new developments.

The Recitals 65 and 66 and the special articles of the General Data Protection Regulation, dedicated to the data subject right of data removal, even for past information related to his person in the childhood, aim to create an all-embracing framework, which realize the final scope of the right for self determination in the online life. The right of data deletion is considered not only an obligation of the controller, who has made the personal data public, but also it is extended by pretending from the controllers, which are processing such personal data to erase any links or copies or replications of those personal data.

So, it is clear that the responsibilities of data controllers and processors foreseen in the GDPR include appropriate steps, including technical and organizational measures from the design phase of any system, service, product or process and then throughout their implementation. The “lawfulness, fairness and transparency” (Council of the European Union 2016, 117) of data processing, obliged the controllers to designate methods by which to restrict the processing of personal data including, inter alia, temporarily moving of the selected data to another processing system, making the selected personal data unavailable to users, or removing published data from a website. Based on the Article 19 of the GDPR the processing of personal data should be restricted and clearly indicated in the system and this has to be done within a month of the request being submitted to the organization. With reference to the technical knowledge of renown experts, we have consulted different sources and professional groups, who mainly are consent to the fact that every organization has to comply with practical requirements for systems, databases and solutions that allow this level of intervention, and secondly arranging the procedures in place to ensure that the effective deletion takes place after the request (Laughlin, P., Smouter, K., 2018)

It is indisputable that all the required measures and actions for processes will be accompanied with requirements for data specialists. The enforcement of the delisting request will be mainly Automated Decision-Making (Kaushik, S., Wang, Y., 2018), but they have to be controlled from data specialist, who can guarantee effective erasure. According to the final results of the European data market study measuring the size and trends of the EU data economy, it was found that 6 million people in Europe worked in data-related jobs in

2015 and 6.16 million in 2016. Based on this trend and on a medium-term estimation it was found that the number of data workers in Europe will increase up to 10.43 million, with a compound average growth rate of 14.1% by 2020 (Martinelli, S., 2016).

Even though the propensity for secure automatized data delisting represent one of the challenge of the right to be forgotten, based on Article 13 and 22 of GDPR it is required that certain algorithm decisions need to be reviewed and explained by humans. The secure management of data delisting is still an open issue, what remains sure is that such restrictions will greatly increase labor costs and can infringe the typical “*balance between accuracy and transparency*” in data management (Wallace, N., & Castro, D., 2018).

Because of wide spread techno - complications in relation to multiplication of information due to back-ups or data access from partner systems, the law includes also the obligation of the controllers to inform and secure from partners the deletion of data at an individual record level. This will definitely bring operational difficulties and increase the cost of operating cloud platforms, as the efficiency of this kind of resource allocation is determined by existing tasks and cannot be totally controlled at the time of data collection.

Moreover, all the systems making sure the fulfillment of the features and all the possible sorts of intervention or new solutions do not compromise the removal of the internet links might mean having to audit the organization’s systems and solutions. The impossibility to respond to such a request due to technical incapability is not an acceptable reason to appeal a request coming from a data subject. After a logic regression we can come to the conclusion that obligations deriving from the right to be forgotten will be concretized with necessary technical requirements and internal procedures conducted by data specialist. This will increase the financial costs for every organization.

Violations and sanctions

In this section we are focused on the negative financial costs are faced by a controller in case of noncompliance to their duties. The GDPR has foreseen a system of various ways that will enforce the data protection. So, administrative measures or sanctions represent a system of progressive measures depending on the level of the violation or of the risks of violation. The GDPR also makes it possible for an organization to lodge complaints on behalf of individuals, which represent an increasingly trend. This possibility was used immediately after the entry into application of the GDPR. Concretely, can be applied data protection inspections directed by the EU Commission, warnings, temporary or permanent restriction of an entity's ability to process and/or collect data, ban from operating in the European Union and fines up to €20

million or 4% of the firm's worldwide annual revenue from the preceding financial year annual global revenue, whichever is highest. So far, according to the research of the International Association of Privacy Professionals the most common GDPR enforcement has been warnings and fines and the more serious infringements go against the main principles of the right to privacy and the right to be forgotten that are at the heart of the GDPR (IAPP, 2019). Under the GDPR, fines are administered by the data supervisor authorities in each of the EU country, which evaluate the objective and subjective elements of the infringement and also the severity of the penalty. The used criteria are *the gravity and nature, data category, history of the firm and if it has cooperated with the supervisory authority to discover and remedy the infringement, intention, appliance of the approved codes of conduct, mitigation, precautionary measures, report of the infringement, aggravating factors* (GDPR, Recitals 74-79; 82-100). Even though has been the first year of the GDPR appliance, the total number of cases reported by supervisor authorities from 31 European Economic Area countries is 206,326, there are levied a total of €56 millions in fines. There is still not registered any fine related to non-compliance of the right to be forgotten.

Apart these categories of financial costs we have stood on another relevant issue related to penalties. The last one can be the effect of the sanctions decided in judgments of European courts in case of violations of the right to be forgotten. Already is mentioned above the case of Google v Spanish Agency of Data Protection, but there are a lot of cases judged from the European Court of Human Rights, which fall under the violation of Article 8 of the European Convent of Human Rights. The disputable cases are more and more present because of the non-absolute character of the right to be forgotten and necessity of this fundamental right with other recognized human rights (freedom of expression, national security and public interest are the most arguable balances). If we refer to the statistics of the European Court of Human Rights, during the last 5 years the number of cases related to right of erasure as one of the private life (Article 8 of ECHR) and other human rights, which can interfere to the right to be forgotten, is increased.

Because of the fact that the right to be forgotten is considered as one of the rights of the data subject under GDPR and also as one of the violations of the privacy under Article 8 of the ECHR, has been difficult to access statistics related only to this issues. During 2018 there are 193 cases judged on violation of Article 8 and 77 related to the freedom of expression, which has been object of many applications in case of rejection of delisting requests (European Court of human Rights, 2019). Of the total number of judgments delivered in 2018, the Court found at least one violation of the Convention by the respondent State in 86%

of the cases (European Court of human Rights, 2019). Also based on the Overview 1959 – 2018 of ECtHR (2019), for a number of years (1959 – 2018), the violations of Article 8 of the Convention have been found at 4.83%. In 2018 the violations founded by the Court concerning Article 8 is 6.55% and we think that this trend is influenced also from the applications on right to be forgotten (some of the judgments are defined as key cases). So, we have conducted our analyses from the legal perspective, which confirm the existence of a well-defined and strong system of penalties, which will be translated into expense for the in-compliant subject. However, considering the fact that people trust an economic system, if they see that unlawful behavior is punished, this can be the corrective power for stronger enforcement of data privacy and subsequently gain of data subjects trust.

CONCLUSIONS

The financial implications related to the enforcement of right to be forgotten, analyzed in this paper, can be addressed to the potential decreased amount of data for analytics, the processing costs of the delisting requests and the financial burden in case of legal violations of this fundamental right.

a. The decrease of amount of personal data from the data erasure is a direct loss of benefits, which result from data analytics processes, especially considering that the right to be forgotten goes far beyond Europe, even though the GDPR only protects EU citizens. Nevertheless, the evaluation on financial impact of the right to be forgotten appliance will be more clear in a long term of relations between data subjects and search engines, based on trust and independence of the subjects.

b. The obligation deriving from the right to be forgotten will be concretized with necessary technical requirements and internal procedures conducted by data specialist.

c. At last we consider that the non-absolute character of the right to be forgotten conditions the evaluation of a delisting request upon relevant factors of the case. So, in case of violations of the right or not fulfillment of the obligations by the controllers, defined in administrative decision of supervisor authorities or further court judgments will be converted in fines or other hefty penalties with financial burden for the companies.

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Corruption Models and Control Mechanisms in the Healthcare Sector

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ABSTRACT: Exploring the impact of corrupt mechanisms and practices, such as fighting corruption, entails high costs for society and the political order. The implementation of the harmful consequences of corruption, including its negative impact on economic growth, encourages the institutions to take measures to curb or prevent it from happening in the public and private sectors. One of the most sensitive sectors susceptible to corruption is healthcare. The report examines the different models of health care financing, identifying sensitive aspects related to providing quality patient care. A comparative analysis of corruption mechanisms was carried out in EU member states. When examining the prerequisites for corruption, emphasis is placed on the cultural and sociological characteristics of the perception of society in the countries regarding the provision of bribery. Some of the corrupt models in Bulgaria and the reasons for their realization are analyzed. On the basis of the analysis carried out, conclusions and recommendations for improvement of the control mechanisms and counteraction of the corrupt practices are drawn up.

Keywords: corruption, control mechanism, healthcare sector.

JEL: H83, M48.

INTRODUCTION

Corruption, as a phenomenon in practice, has been evolving since the establishment of the institutions, with its effect on development in different sectors varying according to the conditions in the country. Crucial to the development of corrupt practices is the maturity of society and its perception of unregulated payments. Second and following paragraphs of the section should be indented.

CORRUPTION AND THE IMPORTANCE OF CONTROL

Numerous authors study the impact of corrupt mechanisms and practices, with the fight against corruption imposing high costs on society and political order (Klitgaard&, MacLean-Abaroa, 2000, 24). I support the author's view that "the state embodies public power, but public opinion as such, the civil society that forms the audience or the subject of the attitude should be added." (Dimov, 2013, 74). Establishing effective control mechanisms in sensitive sectors, such as health care, could greatly minimize the negative effects of corruption. That is why, "Through control, applying the legislation in force sets parameters of the behavior of the control objects, the necessary interconnections and relations between them"(Asenov 2016, 206).

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Defining corruption and linking it to violation of established order and law is a commonly used method of determining its nature. The use of qualitative and quantitative characteristics and analyzes reveals its typical and characteristic features. On the other hand, the specifics and attitudes of society form its dimensions and accordingly provide the regulatory framework and control mechanisms. In identifying corrupt practices an important and crucial moment is the statutory regulation. “The main direction of the analysis of the legal framework is the determination of the effectiveness of the normative acts and the identification of the significant problems in their application” (Asenov 2016, 58).

The concept of control has a widespread application in organizations, but it focuses mainly on the end result. In this sense, when introducing new forms and mechanisms into an organization according to some authors, “the process itself has an experimental nature.” These authors assume that “despite the complex nature of processes and phenomena in the organization, one must experiment and seek the optimal solution”. (Velikov&Kiryakov, 2017, 104). The views of the author, supporter of the multidisciplinary approach are ”dynamics and development oriented”. (Velikov&Kiryakov, 2017, 115). I support the views of the author, as each new change is related to an effective management and control should run its logical course and integrate effectively into the structure of the organization. In this regard, measures related to the prevention of anti-corruption attitudes should also take into account the expected effect and the achievement of the final objectives. Linking effective control measures with the necessary statutory regulations is the basis for successful anti-corruption models. Integrating the specifics of sectoral policies and requirements in healthcare, regulated by current legal norms and adequate control procedures for the prevention of corrupt practices are a prerequisite for successful policies in the sector.

CORRUPTION PATTERNS AND PRACTICES IN EU COUNTRIES

Corruption in healthcare is not an isolated case, only in Bulgaria. According to a European Commission survey (Ecorys, 2017) corruption in healthcare correlates with general levels of perception of corruption. Countries such as Greece, Lithuania, Romania, Slovakia and Cyprus have the highest levels of perception of corruption and data on specific healthcare corruption attitudes and the Scandinavian countries, on the other hand, achieve good results on these indicators. In EU countries, the primary focus is bribery in the provision of medical services. It is also a major challenge in many eastern and southern European member states. The study points out that countries where the most frequent and frequent attempts to pay for privileged treatment are: Slovakia (41%), Slovenia (38%) and Germany, Spain, France and Sweden

(29% in total). The survey found that, for example, the EU average was 19%. The so-called privileged treatment enables patients to pull ahead on waiting lists for costly manipulations or priority treatment in highly specialized clinics.

The in-depth analysis of healthcare corruption in EU countries shows that the main reasons for this type of corruption in most countries are due to:

- low salaries for healthcare professionals, including physicians;
- ineffective governance structures;
- ineffective control mechanisms.

The persecution of physicians for bribery in the provision of medical services over the last few years in the new EU member states has become an increasingly common practice in law-enforcement bodies.

However, there is another trend that has a positive nature, and it is related to socio-cultural features. It has been observed that the younger generation involving both physicians and patients does not accept bribery in the provision of medical services. This positive premise is also a key point in the development of anti-corruption models and the formation of anticorruption culture in generations.

Prevention of corruption in different EU countries follows a different policy and different measures, respectively.

For example, great progress has been made in Poland as a result of a combination of awareness raising campaigns, active prosecution of physicians and media coverage of these cases. In Greece, on the other hand, the situation has deteriorated due to the economic downturn. The privileged access to medical services is also the new element related to corrupt practices in all EU member states

In comparison, bribery for the provision of medical services, corruption related to granting privileges and access to healthcare is currently a key point in assessing corrupt risks. These privileges are linked to transparency in public procurements.

Transparent procedures are key to tackling corruption in public procurement processes. One of the mitigation solutions for this kind of corruption is the centralization of public procurement processes. An important prerequisite for this measure is transparency in the central public procurement authority.

Bulgaria, as a member state has adopted this approach in recent years in terms of transparency of public procurements and is seeking to create such a centralized system.

Some member states have implemented other measures to reduce the risk of corruption in the purchase of medical devices and pharmaceuticals, such as: online publishing of

ordering data, cooperation (between member states) to allow for larger volumes in the award of public procurements contracts, the establishment of anti-corruption directorates and the development of monitoring mechanisms for the pricing of medical supplies, indicating the maximum prices that can be charged by hospitals. These measures are predominantly preventive.

On the other hand, the relationship between physicians and the pharmaceutical industry is key to developing products and monitoring the appropriate use of medicines in practice. However, these relationships also create risks for incorrect and corrupt practices, such as influencing prescribing behavior.

In some countries, policies allow physicians to prescribe only active substances of branded medicines that have had some effect on the health of patients. Nevertheless, physicians can still find ways to prescribe certain products and the pharmaceutical industry can shift its efforts from doctors to the officials responsible for identifying the list of priority drugs.

In order to prevent the improper marketing of pharmaceutical products, several self-regulatory initiatives have been taken at EU level. Both the EFPIA (for pharmaceutical products) and MedTech Europe (for medical devices) introduce measures to prevent improper marketing. In many countries, national associations are committed to introducing codes of conduct or initiatives to increase transparency.

CORRUPTION MODELS IN HEALTHCARE IN BULGARIA

In Bulgaria, corruption in public services is also perceived as widespread. This includes the healthcare sector. The primary form of corruption is the payment of free medical services directly to the physician, the health care worker or a suitable mediator. It is a practice for a patient who goes through treatment to investigate what the "tariffs" are and prepare to give the corresponding amounts. Opportunities for corruption exist also in the determination of the decisions of The Territorial expert medical commission (TEMC) or the Military Medical Committees. Corrupt actions can also accompany the signing of contracts for the delivery of medicines and equipment, repairs in healthcare facilities, etc. Some of the problems related to corrupt forms in healthcare in Bulgaria, as well as in most EU countries, are due to the structure and order of functioning of the healthcare establishments.

Most of the state hospitals are registered under the trade law as sole owner joint-stock companies. In some cases, the joint-stock company is constituted by two or more legal entities including - the state and the relevant municipalities.

In the former district hospitals the controlling stake is owned by the state, the

participation of the municipalities is minimal. Examining the structure and functions of healthcare establishments, conditionally corrupt practices can be divided into two levels - institutional and functional.

At the institutional level, corrupt practices are oriented in the following directions:

Public procurements

- Preparation of the public procurement documentation for the supply of medicines and supplies for the needs of the healthcare facility with the intention to award it to a particular contractor related to the management of the hospital and / or other persons having an opportunity to influence the preparation of the conditions for the competition and the subsequent tender procedure (carried out pursuant to the Public procurement Act);
- Manipulating public procurements for construction and assembly work (CAW) for the purpose of awarding it to a particular contractor;
- Public procurements for the implementation of European funded projects and / or funding from other international funds with a view to also award them to a particular contractor;
- Execution of construction and assembly works for which public procurements should be announced according to the procedure of the Public procurement Act, but they have not been announced (in case of contravention of the procedures of the Public Procurement Act a direct contract procedure with a particular contractor is applied);
- Signing of contracts with external counterparties under Art. 91 of the PPA (mainly for consultancy, the exact scope of which is difficult to define).

The described models are applied at the level of a medical establishment and the preparation of the public procurement documentation is carried out mainly by employees in the hospital in managerial positions (executive director, deputy directors, chief legal counselor etc.).

On a functional level, corrupt practices are expressed in the following directions:- Targeted actions for the closure of certain hospital structures (clinics, wards, etc.), the activity of which is financed by NHIF through costly clinical paths. Upon closure of the structure, the medical activity is transferred to a private medical establishment;

- Redirection of patients in need of a costly intervention to private hospitals;
- Redirection of patients to private labs in order to undergo costly medical exams;
- Pharmaceutical companies influencing medical staff to prescribe certain medications to patients;

- Influencing medical staff in the course of surgical interventions using expensive medical devices (implants, joints, nails, spine cages, etc.) delivered by a particular commercial company;
- Influencing the activities of the medical commissions for the prescription of expensive medicines (the price of which is covered by the NHIF) in order to specify the patients to whom these medications have been prescribed. This model is mainly used in gastroenterology, hematology and hematology-oncology.

Corrupt practices applied at private hospital level can also be divided into institutional and functional levels, and at institutional level they can be sought primarily in a corrupt relationship between owners of private hospitals and the management of the respective Regional Health Insurance Fund. The outcome of these corrupt links results, on the one hand, in the increase of the hospital budget and, on the other hand, in a diminished control over its spending.

In view of the above at a functional level, a number of practices will be developed, which are also applied in state and municipal hospitals, but given the more rigorous control of RHIF, they appear mainly in private hospitals:

- Fictitious hospitalization in view of misappropriation of funds by NHIF;
- Fictitious performance of surgical interventions;
- Fictitious conducting of laboratory tests;
- Prescription of costly antibiotics and / or other medications, the price of which is covered by NHIF, while these medications are not applied to patients but are sold on the so-called "black market".
- Incorrect diagnosis of patients and surgical interventions without the patient's condition requiring this;
- Implementation of certain manipulations leading to deliberate failure of assisted reproduction procedures (mainly within the first two or three attempts).

The aforementioned activity is carried out with the aim of absorbing more funds from the Center Assisted Reproduction Fund (the fund covers three attempts, granting an amount of up to BGN 5.000 per attempt), if the attempt is more expensive, the difference in the price is covered by the patient).

MAIN FINDINGS AND CONCLUSIONS

The aforementioned corruption models suggest taking adequate action in order to prevent negative phenomena. Anticorruption measures must be tailored to match the specific context

in which the health system functions in one country.

Prevention measures should include guidelines for public procurement, ethical codes of conduct for individuals and institutions providing healthcare in the health sector, and procedures for monitoring and ensuring transparency. All of them are a means of ensuring fair behavior and, although not part of the law, can be effective mechanisms to fight corruption.

In order to raise awareness, it is essential to build an online platform that patients have free access to, with health authorities regularly publishing up-to-date information on health budgets and their implementation at national and local level as well as on health care centers for medical supplies.

Ministries, hospitals, health insurance institutions and other agencies managing health care funds should be subject to an independent audit.

Health authorities should put in place opportunities for exercising public scrutiny that increase accountability and transparency. They should monitor public procurement and medication selection procedures on several levels - in providing services to the population, in medical supplies, and in local health management.

It is essential that public policies, practices and expenditures are open to scrutiny by civil society organizations and the legislative body, and all stages of budgeting, implementation and reporting should be fully accessible to civil society.

As in any other sector, the existence of corruption in the health system is unlikely in societies where there is full respect for the rule of law, transparency and trust, where the public sector is governed by effective codes of conduct for the administration and strong accountability mechanisms, and where there are independent media and a sustainable civil society.

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Country Decline and Ideas for Reforming Regional Development of Republic of Bulgaria

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ABSTRACT: The report examines the socio-economic condition of the Republic of Bulgaria. Some sectors of the Bulgarian economy have been analysed, taking into account their regional peculiarities and revealed serious structural weaknesses. The problem of the effectiveness of the country's financial management was also highlighted, reflecting the dependence on the country's external financing. Another major drawback in the economic development of the country is the state of the transport infrastructure and the maximum utilization of its potential, which inevitably affects the regional integration and local socio-economic development. Finally, some legislative and institutional reforms, reforms in the fields of energy, transport, construction, health care, education, etc. are proposed to stabilize growth and regulate the structure of economic power. The objective of reform and regional integration policy will undoubtedly improve citizens' lives and live up to their expectations.

Keywords: economic, regional, integration, reforms.

JEL: R11, R23, R40.

INTRODUCTION

In geo-economic terms, the period 2015-2021 may prove key to socio-economic development of Bulgaria. Mostly, in this period Bulgarian government is called upon to make key reforms related to governance and development of the national economy. Meanwhile runs clear horizon management of Bulgarian municipalities in the period up to 2019 and still open issues with aging in Bulgaria, ongoing political instability, especially the increased traffic through refugee in our country. Most analysts believe the country needs a change in the labour market, education and health, but especially for a clear and distinct strategy for economic development.

ANALYSIS OF THE SOCIO-ECONOMIC CONDITION OF BULGARIA

Increasing the retirement age to 65 years is not a good solution. It'll probably need to encourage more flexible working conditions and adapting jobs to the needs of the older workforce. Will increases the share of workers from non-Bulgarian origin. According to expert assessment considered that Roma already represent between 9 and 19 percent of new entrants in the labour market. According to the analysis, an aging population will lead to an unprecedented demand for health care and the quality and efficiency of health care in this country is lagging behind. The population in Bulgaria continues to decline. For the past 20

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years its number has decreased with 1 105 559 people. The natural population growth (the difference between births and deaths) continues to be negative. In this direction the government has need in terms of total economic decline and poor infrastructure over the next two years to reverse the trend. Such pessimism shares a number of factors from the European Commission. This effectively requires the Bulgarian government to take the right decisions to reduce the effect of country decline. In this direction we are faced with the dilemma "We can only win if we act quickly"? On the contrary, in this case the machine is important for liberalization and industrial lobbies that inspired her to be stopped, not least because the country needs new rules of economic development and simplification of administrative regulations. An obvious fact is that the Constitution of 12/07/1991, it no longer works, and meanwhile the first time in recent history in this Parliament there are conditions for greater constitutional majority on its change. The change of the constitutional model can set a new impetus to socio-economic development of the country over the next 20 years to set a new model of restoration of Bulgarian statehood and laying the foundations of a new economic growth. In practice, our country is now de-industrialized and largest employer is the state. Going back in time, we shall see that on the eve of change Bulgarian economy was huge industrialized, ripe for transition to post-industrial era. This is evident in all macroeconomic indicators and a number non-quantity signs - especially the level of education, health and social security, embodied in the quality of the factor (Glen, 2015). In practice, at the beginning of 1990, the Bulgarian economy is the result of the industrialization of the 50s and 60s of the twentieth century (Panushev, 1991). Then about 20-25 years, our economy shows that Socialist how it will be transformed into a new qualitative state. Set transformation actually had two main theses. The first is a smooth transition to the preservation of the constitutional model of the 1971 course with appropriate adjustments and transformations, the second thesis is putting the whole transitional new constitutional model of economic development. To a large extent the lack of political consensus in society create a relatively imbalanced constitution, which has its advantages, but deficits posed decline and atrophy of the political system and generate economic instability in the country's development. To a great extent in mid-2015 Bulgaria is a drastic economic decline, as evidenced by the collapse of the socio-economic structure - ambiguous role and decline of state property and digestion systems organization and management of labour; crisis of our industrialized economy, expressed in the inability to transition to a post-industrial technologies; reinforcing decline in production of goods and services, accompanied with cuts in household consumption; destruction of the monetary system and degradation of the market due to bypass the limits of

intervention by the administration. They are important parameters of decline because without quantitative benchmarks we cannot look out.

With an emphasis on, energy, transport, construction, health, education and others. Data analysis for Bulgarian Industry revealed serious structural weaknesses. For example, almost half of employment in industry of Bulgaria is in sectors dependent on cheap labour and sectors related to the use of natural resources form the largest share in the gross value added of industry. Both sectors form a significant share of Bulgarian exports have limited potential for future development and offer opportunities to increase the income of employees in their workforce. Bulgaria is heavily dependent on sectors related to natural resources. They have the highest share of value added (26.2 percent) and third in employment in industry (20.8 percent), the country is far more dependent on these sectors of the EU 27 (respectively 15.5 percent and 15.8 percent). The main natural resources with which Bulgaria has are fertile land, vast forests, the presence of ores of nonferrous metals, coal and lignite. Any change in the price of oil, ferrous and precious metals, as well as the prices of agricultural commodities such as wheat and sunflower have an immediate impact on Bulgarian exports, as exports of raw materials represent a significant part of the country's exports. In practice over the past 25 years the country has no clear strategy how to develop the economy. It is therefore necessary large-scale operation to restructure the economy according to natural and other resources of the country, decisive forming agent to stabilize the shaky foundations. Such restructuring needs due to deformed production and non-production sphere, to overcome one of the fundamental sources of our current troubles -chaotic the country's industrialization and vague possibilities and capacity of existing production capacities. Another deficit is access to energy resources in our country.

Successful economic development must be connected with the advent of new legislation primarily related to the law on industrial zones and technology parks, the aim is to ascertain best practices and to prepare legislative and administrative proposals to ease the conditions for investment and promote interest to businesses in industrial zones. Improve the Law on Investment Promotion, through which regulates the terms and conditions for the promotion of investment in the Republic of Bulgaria, the activity of state bodies in the field of investment promotion and protection. Deficits of the current legislation, that it impedes rather than attracts investments in our country. Another question regarding the role of the administration in this process. Vision of government is strictly conservative based on the calls for strict financial discipline in the name of preserving the reputation of good debtor and stable state are an expression of the dominant so far external- economic doctrine. This relates especially

to the state of the third Bulgarian state always depend on loans and debts. It is true that the causes of the debt are not only waste, but they are not in error as trying to persuade us. World economy ejected with increasing centrifugal force like our economies fail to realize the good intentions for development.

However, it should be clear to emphasize that during the transition period until 2015 does not establish a conceptual view on the question of what should be a Bulgarian economic. In confirmation of this thesis is the view of one of the major players in the transition, which said: "It is noteworthy that in economic science does not form a theoretical front. Like iron filings in a magnetic field, most economist's disciples instantly navigate by force lines of the official doctrine. Any modification makes nimbly to positioning to keep pace with time. The development of their views, but actually parasitic upon science, and so on society. In practice, what we find in 2017 Bulgaria's population is just over 7.2 million people. It decreased by about 43 500 people and the number of residents in a medium-sized regional city like Kardzhali or Montana. The reason is mainly negative natural growth due to more deaths than births. As a result of migration abroad, the number of people living in Bulgaria has shrunk by about 2,100 people. It is note that work motivation is falling apart because it is not supported by normal economic mechanisms and command and power tools. Excess workers, employees, researchers, artists, etc. If we look at the role of debt in a broader aspect, namely its impact on company management and households, it can be argued that government securities as high secured winner of sovereign debt are a starting point for building theories and models of competence corporate financial management and modelling of the national economy, and hence the formation of the constitutional model of Bulgaria. In economic terms, the country must have a stable market that is based on the formation of "middle class" to be the backbone of consumption. Virtually no normalization of monetary, no market "user" as the administrative system is hardly able to create cannot be solved the problem of quality and the development of national industries. There will be economic incentives for domestic production and the formation of sustainable economic capital (Dimov, 2007) if it does not function effectively national consumer market that generates the required quality of products and services. The low and declining quality stamp is that time of transition put her face inevitable denouement - the normalization of the market and the monetary sphere will inevitably limit and thereafter to destroy the existing economic structures. They confirmed valid by years of negative trends - Bulgaria's population decline and aging, people of working age are melting faster than living in Bulgaria as a whole, mortality increased and is the highest in the EU (Karastoyanov, 1994). Furthermore, last year infant mortality has risen for

the first time since 2009. According to experts from NSI this is due to the increased birth rate among groups living in poor conditions and a lower level of education. The official emigrants last year 28,727 people. These are people who have changed their address from Bulgaria abroad. Most have migrated officially in Germany, Britain and Spain. National statistics has no evidence of Bulgarians who live abroad, but address their identity card is still in Bulgaria. Foreigners who have changed their permanent address such in Bulgaria are 26 615 people. Indeed, the attempt to rationalize the economic structure will face severe resistance, but on the other hand precise framework of the administration to 3 percent of the population, will allow the government to find a balance and a new role of Administrative Structures (Georgiev, 2012) in tune with time we live rather than the 80s of XX century. In practice, the administration is called to keep the system and introduces rules of functioning of the state and the new state of the XXI century it is called and there are new functions and features. Another deficit in relations administration-society is the active economic activity in terms of governance and human activities. In practice, given the processes of centralization, which set the transition and transformation to obtain the effect the national market of Bulgaria is to be determined solely by the economy of the capital. Exactly in that order in the ongoing centralization country needs decentralization and deconcentration of government. In the current constitutional model municipalities are called upon to conduct local politics (Tonkova, 2002). To a large extent, however, between the central government and local authorities often lost connection and actually get distorted governance models (Georgiev, 2006). This of course raised the need to build governance structures mezzo level. The formation of the 28 districts partly fill the deficit functionality the mezzo level but strike a balance between the centre and the periphery. On the other hand the fore brought the need to impose new territorial-administrative read in the territory of the country in order to achieve optimal connection in the direction "centre-region-municipality". In view of Bulgaria's membership in the European Union structuring the mezzo level should cover a number of people. Prerequisite areas of level 2 have at least 800,000 people. Currently Bulgaria has found balance with redrawing the 6 planning regions as of 2008 they have a new territorial boundaries. Despite the different dynamics of the development of the areas during this period clearly distinguish larger growth rate of the region, including the capital. Large cities (7 total) are and will continue to develop as dynamic centres and various national and regional forms that have influence on agglomeration areas. These are areas around Sofia, Plovdiv, Varna, Burgas, Ruse, Pleven, Stara Zagora, which rank on the top of the hierarchy. According to the European model of semi-centralized development index calculations of the parties is about average for the

European territory (Dzhildzhov, Marinov, 1998). Metropolitan agglomeration is rated the lowest category - 4 on the scale of Europe. For functional areas defined border areas of Plovdiv, Varna and Burgas. Agglomeration identified 35 areas covering 47 457.3 square kilometer therefore 43.29 percent of the territory and population of 5 859 239 people, or 75.29 percent of the population. First level in the hierarchy is occupied by capital and its agglomeration area covering 3908, square kilometer and covers a population of 1 353 906 people or 17.54 percent of the total population of the country. The second level is occupied by 6 agglomeration cities and their agglomeration areas - Plovdiv, Varna, Burgas, Plovdiv, Stara Zagora, Rousse, covering a total of 13 904.5 kilometres and a population of 1 910 160 people, or 24.75 percent of the population On the side. Third level - 29 medium habitat and their agglomeration areas, available on an area of 30 454.8 square kilometres and a population of 2 567 123 people, which is 33.5 percent of the population. Many of these cities, including urban regional centres have lost their organizational active role as centres of growth and development. Data statistics show that more people have returned to live in the countryside, rather than have moved from the countryside to the cities. As a result of migration between urban and rural population of the cities decreased by 5017 people respectively so increased that in the villages. However, people living in cities remain more than those in rural areas - 5.27 million. People against 1.935 million people. From migrated within the country's largest number came to the capital (17 807). Most came to Sofia by Sofia District, Blagoevgrad, Plovdiv, Vratsa and Varna, but at least - from the districts of Razgrad and Silistra. At the end of 2014 settlements in Bulgaria are 5266, of which 257 are cities. Depopulated are 164 locations mostly in Gabrovo, Veliko Tarnovo and Kardzhali. In 1135 villages live under 50. More than a third of the population is concentrated in seven cities with over 100,000 inhabitants. It is however through appropriate policy these cities are encouraged to rebuild its organizational role in the territory around them. In this direction we can emphasize that we have good opportunities in the transport and energy infrastructure, but our country hardly relies on public-private partnership - something which Bulgaria has no experience (Marinov, 2000). Currently in poor economic condition is North-eastern Bulgaria, but given the modernization of agriculture need to be passed to drip irrigation in the region of Dobrogea. Moreover, Ruse, Razgrad and Silistra areas require closer integration. In this direction can rely on targeted investments in these areas account pulling their economic development. First modernization of the port of Rousse, as well as construction of modern river ports in Tutrakan and Silistra. Important for the region is changing the status of the airport Shtraklevo and this in Silistra to implement kargo flyings and low tariff lines in Germany and the Netherlands.

Essential and total modernization and reconstruction of Danube Bridge 1 and the construction of Danube Bridge 3 Silistra-Calarasi. Furthermore, a strategic priority for Northeast Bulgaria should be doubling and electrify railway Rousse Samuel, Samuel Silistra and Sindel-Kardam with the help of public-private partnerships and programs connected Europe. In practice, these projects plus Hemus highway and speed time Veliko Tarnovo, Ruse are key to the development of Northeast Bulgaria. More that the construction of these projects will create new jobs in the region and thus for encourage consumption. Time to realize and what gives us the membership of Bulgaria in the European Union because in 2017, it will take 10 years from our actual membership. In this direction the Northeastern Region I think, will be finished, if you build the highway "Black Sea", speed time in the direction of Varna Vama Veche, and to give new geo-economic insight Varna with the construction of the metro. Varna metro virtually can be one generator for the modernization of our marine capital and as an opportunity to create new development. Developments in the field is highly polarized and manifests the phenomenon of "centre-periphery" and for dealing a decisive role can play Varna future metro will further develop the agglomeration processes within the scope of the Municipality of Varna, neighbouring municipalities Aksakovo, Beloslav and Devnya, and to Dobrich and Shumen regions. In practice Varna will develop and the axis of urbanization north-south, except that the direction east-west as a result of industrial development and improved transport accessibility and the construction of new infrastructure Varna.

In North Bulgaria will become increasingly important region in the direction of Upper Oryahovitsa- Veliko Tarnovo - Gabrovo. In practice, in the changed socio-economic structure of the country three cities are crucial in the formation of new urban and territorial structure of the country. In terms of infrastructure the region is still subject to modernization. First inclusion in the plan "Juncker" the highway of 110 kilometers Ruse - Veliko Tarnovo with an estimated cost of 400 million Euros. The second very important project is the construction of a tunnel under Shipka. This will give the region a natural centre of the country. Next, however, the region needs at least 600 million euros for the restoration of cultural heritage. Build in "Usana" and about Elena new strategic tourist centres for winter and summer tourism. It is better to look for opportunities to build speed road between Gabrovo-Veliko Tarnovo and modernization of the railway. station in Gorna Oryahovitsa and creating a sustainable relationship with the airport "Gorna Oryahovitsa" This will allow for closer cooperation of the surviving industry in the region of Gabrovo in Gorna Oryahovitsa in order to innovation and development and enhancing competitiveness. In practice building these sites will achieve improved business climate and achieve greater flexibility of the companies

in the field, striving to meet the highest European and international requirements for quality production. Several wine center in the region (Lyaskovets, Suhindol, Karaisen etc.), the formation of several plant grower center, agriculture and university centres Gabrovo, Veliko Tarnovo, Svishtov and Russe also will have its share in attracting new investments and economic development.

The most attention the government paid for the Northwest region. In practice, so far the economic decline of the region remains decisive despite many statements from a number of Bulgarian governments for support. Careful look at him the impression that cities are potential Pleven, Vratsa, Lom, Montana, Bulgaria, Vidin and Red Beach. In this direction is normal impact by the government be directed to them. Although the state of Lovech, Mezdra, Jablanica, Republic, Kula, Kozloduy, Nikopol and Belene is also not good. In one direction Vidin-Montana, Vratsa, Sofia government remains constrained has envisaged to include the plan "Juncker." speed road Vidin - Botevgrad with an indicative value of 500 million euros. Another important project is the construction of "Hemus" highway to Lovech and smooth, which may soon begin. However, I think this region are key opportunities for modernization of the railway line of Mezdra-Lom and Vidin to special attention and electrification of the railway. Somovit lines Pleven, Pleven-Lovech-Troyan, because in their modernization and electrification of losers they quickly become profitable. Wrong is the thesis of the Bulgarian State Railways that when a line is defined as the loser should be closed. More important is to analyze the reasons for its poor condition and it is losing as subsequently seek ways and opportunities for its modernization and profitability. I share the thesis of most experts say that Bulgaria railways have a social character (Karakashev, 1993) and its modernization is not subject to discussion. In practice, in Bulgaria there will be no regional policy without modern and electrified railways.

For countries respect, I think that no government has not given a clear idea why the region fell into collapse. The region fell into crisis because of its industrialization and dependence on agriculture. Provided that Bulgarian factories lost their markets and agriculture crushing reaches the industrial decline and a drastic reduction in population. In agriculture is seen consolidation or other words consolidation, but at the expense of only two three cultures and practically creates monopolies in agriculture. In this direction, the region needs new investments and mainly in small and medium-sized companies in the food, pharmaceutical and chemical industries. It is in the region to create large farms with 3-4 thousand animals especially around the Republic, a reed, Koynare, Republic, Nikopol, Krivodol and others, and promoting the development of horticulture and viticulture in Pleven, Montana and Vratsa

regions. In the region there are opportunities for tourism development in cities such as Nikopol, Varshets, Bulgaria Bulgaria, Belogradchik, Berkovitsa and others, but with minor exception bases for relaxation in these cities are old and worn out and need large investments can come only of large European companies, Arab countries and far east Asia.

Another major deficiency of the region's poor orientation of the Danube cities and especially in search of public-private partnerships to build ports for transport operations on the Danube to Central and Western Europe, as well as Ukraine. Another important condition is the ability of the region in December resume energy sources. First is the demand capabilities together with Romania to build hydropower, several bridges on the Danube, and why not with joint effort and opportunity to build a gas power plant in the town. Belene nuclear power plant instead. In energy terms the country should generate new sources of energy. In this connection, part of the scientific potential of the country is of the opinion that the Fore is extremely rich in energy resources, including gas and oil. This demand must be made by the European Union with the necessary concession agreements, which will create real opportunity for linking mining energy carriers with investments in towns of the region.

In geo-economic terms northern Bulgaria has its own potential and opportunities for development, but almost the same goes for South Bulgaria. The difference is that to a large extent the appearance of southern Bulgaria is determined by the availability of capital city Sofia in it the influence of the metropolis Istanbul for the rest of southern Bulgaria, and mainly the territory of the district of Pazardzhik, as well as east of Bourgas and Rezevo. Coincidentally in South Bulgaria were carried out large-scale projects such as highway "Trakia" recently completed the building of motorways "Maritsa" and "Struma", so anything witch not happens in North Bulgaria South seems major focus of investments. Moreover, over the past 15 years were needed to build and Bansko resort that attracts tourists from around the world. However, with the exception of Sofia rest of South Bulgaria is experiencing considerable difficulties in socio-economic terms, and recent years marked by decline and emigration to the US and Western Europe. After Sofia is developing rapidly, I think it is time for this to happen and its periphery. Twenty two municipalities of Sofia District are located in close proximity to the capital and almost completely surrounds the region of Sofia - city. This determines the strong commitment to the development of the territory of contacts and communication with the capital city. To the west is particularly important project for the 48 kilometres highway from Sofia to Kalotina 200 million. Euro, and building on the north tangent around the capital. Accordingly eastbound strategic importance for the region around Sofia has projected highway "Rila". In all probability it will seek funding in the next

programming period 2021-2028, the construction of a highway "Rila" design value of 432 million. Euros, will connect the highway "Struma" Trakia "and" Hemus "shortly before Sofia as in this way will increase the potential transport of the city. Importance of seeking opportunities and building speed road in the direction of Dupnitsa, Kyustendil addition building transport corridor №8, also modernization and eventual doubling of the railways in the direction of Pernik, Kyustendil-Gyueshevo. Given the fact that in the capital of Bulgaria generates large financial resources from geo-economic point of view justified would be to look for opportunities for public-private partnerships in the fields of transport and energy, to improve the socio-economic structure of the region around the capital of Bulgaria and mainly to attract more investments.

In South Bulgaria Plovdiv, Stara Zagora, Bourgas and Pazardzhik are towns with population over 100 thousand. People and are considered important centres of economic development who provides administrative, business and social services of high rank, making them a natural attraction transport centre. These towns are well serviced with road infrastructure of high class - highways, roads I and II class, which provides good access to them. With improved accessibility are the towns of Haskovo and Yambol Municipality. While the approaches to cities like Peshtera, Panagyurishte, Asenovgrad, Chirpan, Karlovo, Nova Zagora and Sliven not improved transport accessibility to them, but because of their modernization and socio-economic development require new road infrastructure mainly consisting of ring roads, building logistics terminals and technological areas for new economic development. While cities like Ardino, Topolovgrad, Smolyan, Devin, Tsarevo, Malko Tarnovo, Sredets, Sungurlare and others. Reduced its transport accessibility. Constructed motorways and first class roads serving primarily the northern half of the area and the Rhodopes, Sakar and Strandja parts are serviced by second- and third-class roads that have a satisfactory role in ensuring transport access to the settlements and the integration of South Bulgaria with border regions in Greece and Turkey. The lower level of construction of the road network of high class in outlying border areas limits the opportunities for economic development in areas that are remote from her, lowers quality of life and defines them as insufficiently attractive to potential investors. It is necessary to overcome the current critical shortage of transport infrastructure both in terms of access to the regional centre, and in terms of intra-regional, inter-regional and cross-border connection. This would help build a speedy route to the state road II-86 Plovdiv-Smolyan-Rudozem border with Greece Xanthi. In the next programming period can rely and build a railway line in the direction of Kardzhali-Ustovo about 90 kilometres with an estimated value of 450 million euros. This may be the

largest project in the last 50 years in the Rhodope Mountains and in practice, once and for all, will facilitate transport access to the town of Smolyan and its surroundings. Moreover, it is necessary to work and build a new road "South horizontally" from Gotse Delchev to Bourgas in Smolyan and Kardzhali, about 450 kilometres with a value of 600 million euros, which actually create opportunities for the revitalization of not only Rhodope, but the region Strandja and Sakar. This project, and the construction of Gorna Arda hydro 1, 2, and 3 of practice will allow the whole Rhodope region to take a breath. The important thing is to start these projects in the period 2016-2017 on because after this period probably losing peoples in those parts of the mountain will be completely irreversible. Important for the development of the planning regions in southern Bulgaria have airports in Plovdiv and Burgas in perspective can be thought to give public-private partnership and the airport in Stara Zagora, as well as for repair and airport near Sliven. The construction of airports can have a positive effect on intention in Bulgaria along Sliven to build a track for racing motoring and adopting the circles of Formula 1 at this stage may be set out these strategic priorities for the development of South Bulgaria 2030. Besides transport accessibility important for South Bulgaria have industry, trade, tourism and more recently the development of information technology.

When it comes about tourism in southern Bulgaria there is a visible difference in the spatial distribution of accommodation tourist facilities in areas of level 2 can be assessed as very high. Marine and partly mountain resorts are the main areas that dominate the base and realize the basic income as a whole. At the same time one of the key problems is the return on investment in tourism, employment resources for shelter and their effective operation (Geshev, 1999).

This in turn suggests that big cities such as industrial and industrial centres lost parts of the role of highly developed areas and urban which is concentrating generating economic prosperity and functional market centres. In practice, major cities in southern Bulgaria economic development in the field of self-sufficiency and conservation. In this direction is the major deficit regions in southern Bulgaria, which significantly lagging behind in terms of development services for businesses compared to other European countries, mainly because of limited access, poor distribution and poor quality of services offered. The network of business support organizations include regional development agencies, business centres, business incubators, associations of entrepreneurs and others. In the vast majority of these organizations have created various programs and their numbers in one area or region is not the result of objective economic processes, but rather on a subjective assessment of the

various donors. Why can not draw definitive conclusions from the number of organizations in the area or region (Dimov, 2000). Moreover, these organizations are extremely diverse and offer a very different range and volume of services. Regarding the situation in southern Bulgaria by geo-economic point of view, everyone turns their cash incomes in specific goods and services and therefore to different people inflation is different. At this level measurements are unnecessary. Opportunities exist to average cash income and cost structure. This form "consumer baskets" is composed of the average volume and structure of consumer goods and paid services. On average across price index in the "basket" is a key inflation measure for the population. On the other hand Bulgaria is in economic stagnation, stagnation briefly. This is especially true for South Bulgaria, where a prolonged period, there is relatively weak economic growth (traditionally measured in terms of GDP growth), often accompanied by high unemployment. This in turn creates a feeling in the younger population of southern Bulgaria for lack of development and the future and directly affects the emigration of the population.

CONCLUSION

In conclusion to emerge from this stagnation and determine we need to change something in the structure of the budget. First, we must make sure that the budget will not interfere with economic growth, which means out of the spiral of deficits. Second should alleviate legislation related to small and medium businesses. Additionally we must reduce indirect taxes and create conditions for loans with lower interest percent. Third EU funds are not sufficient engine of the economy, it is necessary through public-private partnerships, concessions and bilateral Bulgaria to attract investments from countries like Kazakhstan, Iran, Indonesia, Malaysia, South Africa, Sweden, Finland and others. For Bulgaria should apply a saying "clouds can interfere with vision" because today more than ever our politicians need to understand that by comparison between Bulgarian and developed economies should not be made narrow and biased conclusions. It is the rise of Bulgarian economy reflects improving the quality and efficiency of the economy and deepening reform of the economic system. In Bulgaria needed reform of supply to stabilize growth and regulation of the structure of economic power to meet the needs of society and development of the services sector. Bulgaria must fight for growth above 7 percent, which defines "perseverance speed" so that it cannot stop steps to improve the economic style. I see and I know that change always has problems. The main is whether Bulgaria will be able to successfully change the economy based on production and investment with focus on development of services and consumption and what

impact it will have on the European economy. The aim of the policy of reform and regional integration undoubtedly, will improve the lives of citizens and meet their expectations. People expect improving education, work, income, social security, living conditions and environment. People will be satisfied and happy if realize their expectations, and society will be dynamic and will return to its traditions, so the state will prosper. This is the goal that must strive Bulgaria.

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Socio-Economic Changes Occurring in the Northwestern Planning Region and the Southwestern Planning Region as a Result of Bulgaria's EU Membership 2007-2016

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ABSTRACT: The report will examine the cohesion measures implemented in Bulgaria during the first and part of the second programming period 2007-2016. It will be analyzed to what extent these cohesion measures have an impact and contribute to the economic and social development of two of the six planned regions in Bulgaria. Regions selected to be included in the report are the Northwestern Planning Region and the Southwestern Planning Region. They are precisely chosen as these are two of the regions in Bulgaria with the most pronounced interregional differences. The Northwestern Planning Region is one of the least developed, economically, regions not only in Bulgaria but also throughout the European Union. On the other hand, the Southwestern Planning Region is the most developed, economically, region within Bulgaria. The aim of the study is to determine not only whether the socio-economic differences between the six planning regions in Bulgaria and the European regions have decreased as a result of the Cohesion Policy of the European Union in 2007-2016, but also those between the different regions of Bulgaria, in this case between the Northwestern Planning Region and the Southwestern Planning Region. For this purpose, will be analyzed key socio-economic indicators such as Gross Domestic Product-regional level, population, birth rate and mortality, employment and unemployment rates, average annual salary, relative share of population with higher education etc. Thanks to which it will be established if the interregional differences in the two regions under consideration have decreased and cohesion is present or, on the contrary, the differences have deepened.

Keywords: Cohesion Policy of the European Union, Northwestern Planning Region, Planning Regions in Bulgaria, socio-economic indicators, Southwestern Planning Region.

JEL: F15, R10, R58.

It has been a little over twelve years since Bulgaria remained a member of the European Union (EU). A period of significant economic, social and territorial changes in Bulgaria. A period that is also quite long so that you can make an accurate account of what can be deduced from our country's membership in the European Union and how significant they are. Since joining the integration community, our country has taken a place in the ranks of the least developed EU Member States. The six Bulgarian planning regions, in turn, ranked in the negative ranking of the most economically, socially and territorially lagging regions of the Community.

Here is the place to make the following clarification: the meaning given to the use of the term "region" in the field of European integration is enshrined in the adopted formal system of differentiating regions, a system whose objectives are both statistical and in order to carry out the EU's regional structural policy, most commonly referred to as the EU's Cohesion Policy (CP). The system is called Nomenclature of Territorial Units for Statistics, briefly NUTS.

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Two approaches are used in the formation of the system, namely normative and analytical. The normative approach is characteristic of already existing regions in the Member States of the Community, these already existing regions are characterized by some autonomy on a number of governance issues, institutions at regional level including regional assembly and government, financial autonomy through the collection of local Taxes and Charges. This approach, as mentioned above, is used for already existing regions with a degree of autonomy. If it was necessary to create artificially territorial entities that meet the NUTS requirements for a region in a Community country where regions are missing, let's talk about an analytical approach. The regions in these countries are created mechanically by grouping existing territorial entities. It was important to clarify this, since the analytical approach was used in the formation of the planning regions in Bulgaria. NUTS also operates at three levels NUTS 1, NUTS 2 and NUTS 3. Here it is worth mentioning that, unlike the NUTS 1 and NUTS 3 regions, which are used for statistical purposes only, the NUTS 2 regions are also widely used in the EU's regional structural policy. For this reason, only NUTS 2 regions will be considered in this article. In order to be eligible for a NUTS 2 region, the population of these regions needs to range from eight hundred thousand to three million. Impact regions are also at this level when planning and implementing most of the measures included in the EU's regional structural policy, hereinafter referred to as the EU CP. It is characteristic of all NUTS 2 regions that they differ significantly in structure and degree of economic development. Economically backward regions of NUTS 2 take priority in the allocation of EU budget funds, providing for regional cohesion measures. The EU Cohesion Funds for the current financial framework 2014-2020 amounting to EUR 376 billion. The NUTS 2 regions that are in the most difficult situation are called "conventional regions". For the purposes of the current financial framework, the cohesion funds earmarked for them amount to EUR 162.6 billion, representing 43.2% of the cohesion funds as a whole or the most cohesion funds will be invested in the most disadvantaged regions. To be included in the "convergence regions", a region must meet the GDP per capita requirement in the region to be below 75% of the average GDP per capita of the EU, according to this requirement all six NUTS regions in Bulgaria are eligible (1).

The regions that form NUTS 2 in Bulgaria do not represent administrative units and have territorial scope as follows:

- Northwestern region, including the districts of Vidin, Vratsa, Lovech, Montana and Pleven;

- North Central Region, including the districts of Veliko Turnovo, Gabrovo, Razgrad, Rousse and Silistra;
- North-East region, including the districts of Varna, Dobrich, Targovishte and Shumen;
- South-East region, including the districts of Bourgas, Sliven, Stara Zagora and Yambol;
- Southwestern region, including the districts of Blagoevgrad, Kyustendil, Pernik, Sofia and Sofia;
- South-Central region, including the districts of Kardzhali, Pazardzhik, Plovdiv, Smolyan and Haskovo.

As mentioned above, the six Bulgarian planning regions have been identified as lagging behind economically, socially and territorially among EU regions since the country's accession to the EU. Unfortunately, to date, the problem of deep regional differences not only between the six planning regions in Bulgaria and the EU regions, but also between the individual regions in Bulgaria remains relevant. The purpose of this study is to determine whether, however, these deep differences have been mitigated and some degree of cohesion between the regions in Bulgaria has been achieved or, on the contrary, the differences have deepened. This will be done through an analysis of key socio-economic indicators considered at both national and regional levels. Below the regional level we mean two of the six planning regions in Bulgaria, namely the Northwestern Planning Region (NWPR) and the Southwestern Planning Region (SWPR). They were chosen precisely, since the NWPR at the time of Bulgaria's accession to the EU was the least developed not only in Bulgaria but also at the level of the EU regions, and the SWPR is the most developed of the regions in Bulgaria. For the purposes of this study, the 10-year period 2007-2016, covering the entire first multiannual financial framework (MFF) 2007-2013, will also be considered and part of the second MFF 2014-2020. Within this 10-year period, the EU's first and second integrated operational programs are being implemented. In the first programming period 2007-2014, this is the Operational Program "Regional Development" (OPRD 2007-2013), and in the second programming period 2014-2020, the Operational Program "Regions in Growth" (OPRG 2014-2020). OPRD 2007-2013 and OPRG 2014-2020 are funded by the European Regional Development Fund (ERDF), amounting to 85% of the funds and the state budget of the Republic of Bulgaria, amounting to 15% of the funds. Objectives of OPRD 2007-2013 are related to improving socio-economic conditions in the six planning regions, ie to overcome

their lagging behind the EU regions on the one hand and to limit the inter-regional differences in Bulgaria on the other. To this end, the OP includes a wide range of measures, from infrastructure to cultural heritage conservation, which take into account both general trends and the specificities of individual settlements. Support is provided both for projects of large urban centers with good potential for economic growth and social inclusion, and for their neighboring and peripheral regions, which are lagging behind the overall development of the region. An important role is also played by the cooperation between the different municipalities, which will accordingly ensure integrated and sustainable development. The objectives of the program are fulfilled by supporting operations included in the five priority axes (2). The goals set in the OPRG 2014-2020 are to ensure a balance in cities and contribute to sustainable urban development, to create favorable conditions for improving the quality of life and jobs in cities. The Operational Program "Regions for Growth" 2014-2020 has been developed to support the more balanced and sustainable development of Bulgarian cities. Its financial support is necessary to overcome the differences in the development of the regions, as well as to overcome the negative migration processes to Sofia and the big cities leading to depopulation of large parts of Bulgaria. Operational Program "Regions for Growth" 2014-2020 supports the reforms in several key sectors related to sustainable and balanced regional development of Bulgaria until 2023. OPRG finances projects in the field of regional development, education, health care, social policy. The program is geared towards creating growth and jobs in the regions through measures for urban development, regional tourism and new financial instruments. Special attention was paid to energy efficiency in the support centers in the peripheral regions, according to the national polycentric development model, formulated in the National Spatial Development Concept 2013-2025 (3).

Before proceeding with the analysis of some of the most important socio-economic indicators, we will give a brief overview of the two regions (NWPR and SWPR) included in the study, related to their scope, area, location and some specific features. The first planning region to be considered is the Northwest Planning Region (NWPR). It is part of the NUTS 1 region "North and South-East Bulgaria". It is formed from the districts of Vidin, Vratsa, Montana, Lovech and Pleven (NUTS 3 level). There are 51 municipalities in the area.

FIGURE 1
Northwestern Region



The area of the region is 19,070 square kilometers, accounting for 17.18% of the country's territory. The area is bordered on the north by the Republic of Romania and on the west by the Republic of Serbia, on the east by the north-central region and by the south by the south-central and southwestern regions (4).

Vidin District is located in North-Western Bulgaria. It is the entrance - exit door of the Republic of Bulgaria to Europe and the world. To the north it borders on the Republic of Romania, to the west it is adjacent to the Republic of Serbia, to the south it is fenced off by the Balkan Mountains, to the east it borders with the Montana District. Our northern border - the Danube River, determines the possibility of direct connections with all countries through which the Danube River flows. Two trans-European corridors pass through the district - No. 4 Craiova / R. Romania - Vidin - Sofia - Tower / s No. 7 Rhine - Main - Danube. The territory of the district includes 11 municipalities: Vidin, Bojnitsa, Bregovo, Belogradchik, Gramada, Dimovo, Kula, Makresh, Novo selo, Ruzhintsi, Chuprene (5).

The district of Vratsa borders with the districts of Montana, Lovech, Plevna and Sofia. The northern border is the Danube and then Romania. The territory of the district covers part of the Danube plain and parts of the Balkan Range. The international highway from Central Europe-Craiova-Vidin-Sofia-Kulata-Thessaloniki also passes through the region of Vratsa. The Iskar Gorge connects the area with the settlements south of the Balkan Mountains. The first nuclear power plant in the Balkans was built on the banks of the Danube River near Kozloduy. Ten municipalities - Vratsa, Borovan, Mezdra, Krivodol, Hayredin, Mizia, Byala Slatina, Oryahovo, Roman and Kozloduy - with a total of 123 settlements, fall into their current borders and territory in the district (6).

Montana District occupies the central part of Northwestern Bulgaria. The northern boundary of the district is the Danube River, which is also the state border with Romania. To the southwest, the area borders Serbia, to the south it is bounded by the northern slopes of the Balkan Range. The neighboring region in the west is Vidin, in the east - Vratsa and in the south - Sofia. An important advantage of the area related to its location is the fact that two of the European transport corridors of the TINA network pass through its territory - corridor № 4 (road E 79) Vidin-Montana-Vratsa-Sofia-Kulata (WP I-1) and Corridor No. 7 (Danube River). The shortest road from Vidin to Sofia passes through the territory of Montana District - the second class road II - 81 through the Balkan Pass Petrohan, which also serves the port of Lom, providing it with the Greek port of Thessaloniki. These factors can have a stimulating effect on the overall development of industry, agriculture, trade and tourism in the area. The district is divided into eleven municipalities: Berkovitsa, Boychinovtsi, Brusartsi, Varshets, Vulchedrum, Georgi Damyanovo, Lom, Medkovets, Montana, Chiprovtsi and Yakimovo (7).

Lovech District borders the districts of Sofia, Pleven, Veliko Turnovo, Gabrovo, Stara Zagora and Plovdiv. Two major transport arteries pass through the territory of the district - road I-4 (Sofia-Sevlievo-Veliko Turnovo-Shumen) and road I-3 (Botevgrad - Koritna - Byala). They make the connections of the Lovech district with the neighboring and other districts and with the capital. An important transport artery for the district is the II-35 road, forming the north-south transport axis, connecting from the Pleven region through the Troyan-Karnare mountain pass to the Plovdiv region. There are 8 municipalities in Lovech - Apriltsi, Teteven, Troyan, Yablanitsa, Ugarchin, Letnitsa, Lukovit and Lovech (8).

Pleven District includes in its scope 11 municipalities - Pleven, Belene, Gulyantsi, Dolni Dabnik, Dolna Mitropolia, Iskar, Levski, Nikopol, Knezha, Pordim, Cherven bryag. (9)

The Southwestern Planning Region (SWPR) is part of the NUTS 1 Southwestern and South Central Bulgaria region. It is formed from the districts of Sofia-city, Sofia, Pernik, Kyustendil and Blagoevgrad (NUTS 3 level). There are 52 municipalities in the area.

FIGURE 2
Southwestern Region



The area of the region is 20 306,4 km², which makes 18,3% of the territory of the country. The region borders to the west with Macedonia and Serbia, to the south with the Hellenic Republic, to the east with the South Central Region and to the north with the Northwestern Region (10).

Sofia-city is the center of Sofia district, Sofia-city and Sofia municipality. Sixteen of the twenty-four districts of the Metropolitan Municipality (Sredets, Krasno selo, Revival, Oborishte, Serdika, Poduyane, Slatina, Izgrev, Lozenets, Triaditsa, Krasna Polyana, Ilinden, Nadezhda, Mladost, Studentski, Lyulin) are composed of the city. The other five regions (Vitosha (Vladaya, Marchaev), Vrabnitsa (Voluyak, Marble), Iskar (Busmantsi), Kremikovtsi (Buhovo, Zheleva, Yana, Gorni Bogrov, Dolni Bogrov), Ovcha Kupel (Malo Buchino)) include as parts of Sofia and parts of other settlements. Three districts of Sofia Municipality (Pancharevo (Pancharevo, Bistritsa, Kokalyane, German, Zheleznitsa, Lozen, Dolni Pasarel, Plana, Kazichene and Krivina), Novi Iskar and Bankya (Ivanyane, Klisura)), though on the territory of Sofia-city and under the authority of the Sofia Municipality and the Mayor of Sofia, they are outside the territorial scope of the City of Sofia.

Sofia District is located in the central part of Western Bulgaria. Sofia District is the outskirts of the capital Sofia and therefore it is the natural political, administrative and cultural center of the district, although it is not within its scope. For this reason, the Sofia District Administration is the only one in Bulgaria, located in a city that does not enter within the governed area. It also includes the largest number of municipalities in Bulgaria - 22. From the point of view of the territory it occupies, Sofia District is the second largest in the country after Burgas. It borders the city of Sofia, the districts of Montana, Vratsa, Lovech, Plovdiv, Pazardzhik, Blagoevgrad, Kyustendil and Pernik, and to the west - with the Republic of Serbia. The municipalities of Anton, Bojurishte, Botevgrad, Godech, Gorna Malina, Dolna

Banya, Dragoman, Elin Pelin, Etropole, Zlatitsa, Ihtiman, Koprivshtitsa, Kostenets, Kostinbrod, Mirkovo, Pirdop, Pravets, Samokov, Svoje, Svoje are located in its territory. and Chelopech (11).

Pernik District includes the municipalities of Breznik, Zemen, Kovachevtsi, Radomir and Tran, and the administrative and economic center is Pernik (12).

Kyustendil District The Kyustendil District includes the municipalities of Kyustendil, Dupnitsa, Bobov Dol, Sapareva Banya, Nevestino, Treklyano, Kocherinovo, Boboshevo, Rila (13).

Blagoevgrad District has an area of 5500 km², which ranks it third in terms of area in the country, after Bourgas and Sofia District. The district consists of 14 municipalities, namely: Bansko, Belitsa, Blagoevgrad, Gotse Delchev, Garmen, Kresna, Petrich, Razlog, Sandanski, Satovcha, Simitli, Strumyani, Hadzhidimovo, Yakoruda (14).

Once it has become clear what the Northwestern and Southwestern Planning regions represent, we will proceed to an analysis of some key socio-economic indicators. The data required for the survey was taken from the National Statistical Institute (NSI), and the tables and calculations below are made by the author.

The first indicator to be considered is GDP per capita at regional level. Data for both the country and the two regions under review are rising in value, although this growth is much lower for the country and for the NWPR. Within the period under review, the region with the lowest GDP per capita in Bulgaria is NWPR. For the districts within the NWPR the picture is as follows: at the beginning of the period in 2007 the indicator values were the lowest in the Montana district and the highest respectively in the Vratsa district. At the end of the period in 2016 the district with the lowest GDP per capita became the Vidin district, and the highest until the end of the period remained the Vratsa district.

TABLE 1
GDP per capita - regional level (in lv)

GDP p€	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total fo	8285	9544	9622	9924	10990	11229	11268	11594	12340	13206
NWPR	5552	6221	6074	6090	6914	7033	7080	7419	7607	8014
SWPR	13667	15911	16248	17013	18333	18309	18192	18593	19985	21293

The planning region with the highest GDP per capita is the SWPR, which is largely due to the fact that the economic center Sofia-city falls within the scope of the region. At the beginning of the period the lowest values of the indicator were registered in the district of

Kyustendil, and at the end of the period in the district of Pernik. In Sofia-city the highest values of the indicator were reported, both within the region and the country during the whole period considered. A strong impression is made in the fact that in the Pernik district during the period under review there is a decrease in the values of the indicator.

In the second indicator, the number of the population for the period 2007-2016 shows a significant decrease in national values. For the planning regions, the situation is the following: the region with the smallest population during the whole period considered is the LDP, and the fact that the fastest and most dramatic depopulation in comparison with all other regions is also registered. The district with the lowest and decreasing population in the region is the Vidin district and the highest respectively is the Pleven district. This remains unchanged at the end of the period.

TABLE 2
Population

Populatio	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total for t	7640238	7606551	7563710	7504868	7327224	7284552	7245677	7202198	7153784	7101859
NWPR	929872	916054	902537	886911	836601	823469	810401	797142	783909	769623
SWPR	2114568	2115042	2112519	2113555	2131233	2128783	2127618	2125212	2121185	2115344

The planning region with the highest population is the SWPR, which is also the only one of the six planning regions in Bulgaria, where the population growth is observed at the end of the period considered. The region with the lowest and decreasing population size at the end of the period is Pernik district. With the highest population in the region and the country as a whole is the population in Sofia-city, it is also the only one of the districts in the region where there is population growth.

The next indicator to be considered is related to natural population growth (birth rate). As is clear from the data in the table for the period 2007-2016, both in the country and in each of the planning regions, there is a strongly negative natural population growth. The highest values in this indicator are the values in the NWPR, and at the beginning of the period under review they are more than twice higher than the national average. The most unfavorable situation is in the district of Vidin, where the indicator values are almost three times higher than the national average. The lowest values in the region are in the district of Lovech, followed by the district of Pleven. At the end of the period the Vidin District remains with the highest values of the indicator, both within the NWPR and in the country, with the best respectively in the region is the Pleven District.

TABLE 3
Birth rate

Birth rate	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total for t	-5.0	-4.3	-3.5	-4.6	-5.1	-5.5	-5.2	-5.7	-6.2	-6.0
NWPR	-11,1	-10,3	-9,7	-11,1	-11,3	-12	-11,1	-12	-12,4	-12,4
SWPR	-6,2	-5,4	-5	-5,8	-6,7	-7,1	-7	-7,3	-7,9	-7,8

The situation in the SWPR is the following, as the situation in the districts of Pernik and Kyustendil could be most difficult to determine, where the indicator values are almost twice higher than the national average, the most favorable being respectively in Sofia-city and Blagoevgrad district. In addition to the decrease in the indicator values in 2009 in the region as a whole, there is even a positive natural increase in Sofia-city, which continues in 2010. After that, however, there is again an increase in the negative values of the indicator, as at the end of the period in 2016 the values of the indicator in the districts of Pernik and Kyustendil are even more unfavorable and put them again in the last positions in the region, the values of the coefficient remain the lowest in Sofia-city.

Follows the indicator of population mortality rate (mortality rate). From the positive values of the coefficient it is clear that the mortality rate of the population both in the country and in each of the planning regions is extremely high, this tendency continues until the end of the period under review, as well as in the natural population growth, and here there is a decrease in the values of the coefficient in 2009, after which they start to rise again. The data show that the mortality rate is highest in the NWPR and in particular in the Vidin district, where the highest values of the coefficient were registered in 2007 both within the region and in the country as a whole. The lowest indicator values in the region are Pleven district. At the end of the period considered, the overall layout of the districts remained unchanged.

TABLE 4
Mortality rate

Mortality ₁	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total for t	14,7	14,5	14,2	14,6	14,7	15	14,4	15,1	15,3	15,1
NWPR	19,32	18,82	18,74	19,42	19,8	20,32	18,8	20,12	20	20
SWPR	15,32	14,84	14,88	15,08	15,62	15,84	15,28	15,98	16,34	16,3

The third place among the regions in the country with the highest values of the indicator is SWPR, which in the district of Kyustendil in 2007 the highest mortality rate was reported. In the district of Blagoevgrad the lowest, respectively, with values below the national average.

At the end of the period, the situation in the districts of Kyustendil and Pernik remained the most unfavorable, and the most favorable in the Sofia-city.

The next indicator to be considered is related to the average annual salary of employees under employment and employment relationship. Regarding the indicator, there is an increase in values, both for the country as a whole and for the planning regions within the period considered. The third position among the planned regions with the lowest values of the indicator is the NWPR, where the lowest is in the Vidin district. They are the highest in the district of Vratsa, and this remains unchanged at the end of the period.

TABLE 5
Average annual salary

Average a	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total for t	5167	6538	7309	7777	8230	8773	9301	9860	10535	11379
NWPR	4365,4	5396,2	6038,6	6397,6	6594	6962,6	7311,8	7772	8247,8	8873,6
SWPR	4967,2	6122	6705,2	7152	7579,6	8018,4	8453,6	8856	9443,8	10187,4

The region with the highest values of the average annual wage of employees under employment and employment relationship is SWPR. Within the region, the highest values of the indicator are in Sofia-city and the lowest respectively in the district of Blagoevgrad.

The next indicator to be considered is the employment rate - 15-64 years. As is clear from the data in the table, for the period 2007-2013 overall, the indicator values have decreased, and a decrease is also observed in the individual regions and constituent regions. In second place among the regions with the lowest values of employment rate in 2007 ranks NWPR, where in 2007 the lowest is the percentage of the employed in Vidin district and the highest is in Lovech district. At the end of the period a dramatic decrease in the coefficient values was observed in the district of Lovech, which ranks the region in the penultimate place of employment, outstripped by a slight difference from the district of Vratsa. At the end of the period the area with the highest values of the indicator within the NWPR is the Pleven district. By the end of the period under review, the NWPR was already the last in employment in the range of 15-64 years of age.

TABLE 6
Employment rate

Employment rate	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total for t	61.7	64.0	62.6	59.7	58.4	58.8	59.5	61.0	62.9	63.4
NWPR	57.08	59.02	57.4	53.88	53.26	53.26	54.2	54.62	55.72	54.44
SWPR	65.24	67.34	66.58	64.14	62.12	62.3	61.62	62.08	63.4	64.08

The region with the highest values of the employment rate among the population aged 15-64 years is the SWPR, where the highest reported values of the indicator are registered in Sofia-city, and this remains so until the end of the period considered. The lowest values for the region at the beginning of the period are the coefficient values in the Pernik district and at the end of the period in the Kyustendil district. The SWPR retains its first position, the region with the highest employment rate and at the end of the period considered.

The next indicator to be analyzed is related to the unemployment rate of the population in the planning regions and their constituent areas. As it is clear from the data, the unemployment rate has increased dramatically during the period 2007-2013. both for the country as a whole and within the planning regions. The third place among the regions with a high unemployment rate is NWPR, where the indicator values are highest in the Vidin district and the lowest in the Pleven district. At the end of the period Vidin District remains with the highest unemployment rate and the lowest for the region in Lovech district.

TABLE 7
Unemployment rate

Unemploy	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total for t	6,9	5,6	6,8	10,2	11,3	12,3	12,9	11,4	9,1	7,6
NWPR	9,62	7,8	8,42	10,94	13,48	13,08	14,42	15,16	12,62	10,72
SWPR	4,9	4,06	4,96	7,22	9,42	9,64	11,92	12,08	10,22	7,88

The planning region with the lowest percentage of the unemployment rate is the SWPR, where the lowest values of the indicator in 2007 are reported in Blagoevgrad district and the highest in Pernik district respectively. However, at the end of the period the situation is different, the district with the lowest values of the indicator becomes Sofia-city, and with the highest district Kyustendil. Despite the drastic growth in the indicator values in the districts and in the region, as a whole the SWPR and at the end of the period remained the region with the lowest values of the unemployment rate in the country.

With regard to the indicator, the relative share of the population aged 25-64 with higher education indicates that both the total for the country and for the individual planning regions are increasing for the period, however the values of the indicator are still quite low. Secondly, among the planning regions with the lowest relative share of the population with higher education is ranked NWPR, where during the period considered their lowest share is in Vidin district, the highest in the beginning of the period is their share in Lovech district, and at the end of the period in the district of Pleven. In the NWPR, a strong impression is made by that this is the only planning area which reports the lowest growth in the indicator values during

the period under review, and in 2016 there is even a decline in its value. At the end of the period, the NWPR also ranks first in the ranking of the regions with the lowest relative share of the population between the ages of 25 and 64 with a university degree, displacing the South-Central Planning Region (SCPR).

TABLE 8
Relative share of the population aged 25-64 with higher education

Higher education	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total for the country	22,4	22,7	23	23,2	23,6	24	25,6	27	27,5	27,7
NWPR	17,42	17,34	17,24	18,68	18,4	18,02	18,42	19,72	21	19,1
SWPR	21,14	21,28	21,54	21,46	22,4	22,32	23,52	25,1	26,44	25,6

The region with the highest relative share of the population aged 25-64 with higher education is SWPR, where in 2007 the region has the highest population share within the regions in Bulgaria. The highest value of the indicator is in Sofia-city and the lowest both for the region and in the country were measured in the district of Blagoevgrad. At the end of 2016, the region with the lowest values of the indicator in the region is the district of Sofia, and with the highest again in Sofia-city. At the end of the period the SWPR maintained its first position as the region with the highest values of the indicator.

From the analysis made so far of the socio-economic indicators considered in the study, the following can be summarized: So far it cannot be said that some significant level of rapprochement in the regions in our country has been achieved, in some places even is obviously some deepening of the differences. It is also interesting to note that, even within the SWPR, there are significant differences between the constituent districts. Perhaps over a longer period of time, with sufficient activity on the part of the Bulgarian regions to absorb funds from the operational programs of the EU and with some change in the composition of the Bulgarian regions, these disparities will be overcome or at least mitigated. At this stage, however, it cannot be said that economic or social cohesion has been achieved in our country.

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The Data Protection Officer as an Instrument for Compliance with the Accountability Principle Under the GDPR

Anita Borisova¹

ABSTRACT: *The Data Protection Officer (DPO) is a new figure under the GDPR that was not known in the legal regulation under the precedent Directive on Personal Data Protection. DPOs are main company's advisors on compliance with data protection rules. They are often called "a cornerstone of accountability" since they facilitate compliance, while also acting as intermediaries between authorities, data subjects, data controllers or data processors by which they have been appointed.*

The current paper explores important topics regarding the DPO, as follows:

- cases of mandatory designation of a DPO
- appointment of a single DPO for several organizations
- accessibility and localization of the DPO
- expertise and skills required for the DPO
- main tasks of the DPO
- responsibility of the DPO for non-compliance with the GDPR
- conflict of interests

The aim of the investigation is to demonstrate the key role of the DPO in terms of data protection compliance as well as to show how appointment of a DPO in a company, even when this is a voluntary act rather than a mandatory requirement of the law, may practically prove observance of the accountability principle before the data protection authorities.

Keywords: DPO, GDPR, personal data, privacy.

JEL: K23, K38.

INTRODUCTION

The purpose of the current investigation is to underline the key role of the DPO in terms of personal data processing as well as in showing compliance with the data privacy laws. Further, the paper discusses how the appointment of a DPO in a private or public organization, even when this is a voluntary act rather than a mandatory requirement of the law, may practically prove observance of the accountability principle before the supervisory authorities.

Designating a DPO is an actual and problematic in many directions issue, which pre-defines the necessity and applicability of the study. Still in 2016 "an International Association of Privacy Professionals (IAPP) study conservatively estimated that, once the GDPR takes effect, at least 28,000 DPOs will be needed in Europe and the United States alone. Applying a similar methodology, we (the authors) now estimate that as many as 75,000 DPO positions will be created in response to the GDPR around the globe" (Heimes & Pfeifle, 2016).

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DISCUSSION OF THE RESEARCH PROBLEM

The accountability as a basic data privacy principle

EU data protection principles aim to move data protection from theory to practice as well as to help data protection authorities in their supervision and enforcement tasks. The accountability principle, in particular, is required to provide legal certainty, while at the same time enables the determination of the concrete measures to be applied depending on risk of the processing and the types of data processed. This principle strengthens the role of the data controller and the data processor and increases their responsibility. This is needed due to the fact that nowadays the amount of personal data that exists, is processed and is further transferred continues to grow. Both technological developments and the increasing capability of individuals to use and interact with technologies are prerequisites for it. With more data available and traveling across the globe, the risks of data breaches increase significantly.

Common accountability measures may generally include the following non-exhaustive list:

- Establishment of internal procedures prior to personal data processing operations (e.g. adoption of a data privacy code of conduct);
- Mapping of procedures to ensure proper identification of all data processing operations and maintenance of an inventory of data processing operations (e.g. maintaining registers of data processing activities, conducting data privacy impact assessment (DPIA));
- Appointment of a data protection officer and other individuals with responsibility for data protection;
- Offering adequate data protection, training and education to staff members, etc.

Thus, the General Data Protection Regulation (GDPR)¹, provides a modernized, accountability-based compliance framework for data protection in Europe. According to interpretations of law, “even though the accountability principle in Article 5 (2) GDPR is only directed towards controllers, processors are also expected to be accountable, given that they have to comply with several obligations and that they are closely connected to accountability” (*Handbook on European data protection law*, 2018). Processors must also ensure that the appropriate technical and organizational measures necessary for insuring the security of the data have been implemented. Moreover, the processor shall assist the data controller with

¹ REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

some of the compliance requirements, such as notifying the controller of any personal data breach as soon as they become aware of it.

The Data Protection Officer as an instrument for compliance with the accountability principle under the GDPR

Data Protection Officers (DPOs) are the core of this new accountability-based legal framework for many organizations. At the same time, DPOs are the main persons who advise on compliance with data protection rules. Although new as a concept in the GDPR, in comparison to the Directive on Personal Data Protection², DPOs have already been introduced in some local Member States legislations. However, “the GDPR recognizes the DPO as playing a key role in the new governance system and includes detailed provisions regarding the officer’s appointment, position, duties and tasks” (*Handbook on European data protection law*, 2018).

Mandatory or voluntarily designation of a DPO

Under the GDPR, it is mandatory for certain controllers and processors to designate a DPO. Furthermore, even when the GDPR does not specifically require the appointment of a DPO, organizations may under definite circumstances find it useful to designate a DPO on a voluntary basis. The Article 29 Data Protection Working Party (WP29) encourages these voluntary efforts.

Article 37(1) GDPR requires the designation of a DPO in three specific cases:

- where the processing is carried out by a public authority or body;
- where the core activities of the controller or the processor consist of processing operations, which require regular and systematic monitoring of data subjects on a large scale; or
- where the core activities of the controller or the processor consist of processing on a large scale of special categories of data or personal data relating to criminal convictions and offences.

As seen above, the appointment of a DPO is also mandatory for public bodies, including the local competent authorities, supervising the data protection compliance in each Member State.

Moreover, unless it is obvious that an organization is not required to designate a DPO,

² Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

the WP29 recommends that controllers and processors document the internal analysis that led to the decision for (non-) appointment, in order to be able to demonstrate that the relevant factors have been taken into account properly. This analysis, which is namely part of the documentation under the accountability principle, may be required by the supervisory authority upon verification. It should be maintained up-to-date, with respect to any new activities that are performed by the data controllers / processors. It is important to note that under Article 37(4) GDPR, Union or Member State law may require the designation of DPOs in other cases as well.

When an organization voluntarily designates a DPO, all the requirements of the law concerning the designation, position and tasks remains the same. In case an organization is not obliged to and not wish to designate a DPO, it still may employ staff or outer consultants to assist with data protection activities. In this case it must be ensured that there is no confusion regarding their title, status, position and tasks. Therefore, it should be made clear, in any communications within the company, as well as with data protection authorities, data subjects, and the public at large, that the title of this consultant is not a DPO. Such data privacy professionals, not being DPOs themselves, may be also appointed in large organizations or group of related companies when a DPO is designated, in order to support the data privacy operations.

It is also good to mention that the DPO, whether mandatory or voluntary designated, is responsible for all the processing operations carried out by the controller or the processor.

***Appointment of a single DPO for several organizations.
Accessibility and localization of the DPO***

Appointment of a single DPO for several organizations may have a great practical value for international businesses considering both the efficiency of the data privacy operations and the cost for implementation of the appropriate technical and organizational measures. Article 37(2) GDPR allows a group of undertakings to designate a single DPO provided that he/ she is “easily accessible from each establishment”. This accessibility is strongly required especially taking into consideration the tasks of the DPO as a contact point with respect to data subjects, the supervisory authorities, but also internally within the organization. In order to ensure that the DPO is accessible, a variety of contact details shall be available in accordance with the requirements of the GDPR. Accessibility means that each data privacy subject, irrelevant of his/her age, social status and/or technical knowledge shall have an easy way to find and communicate with the DPO regarding the privacy of his/her data and his/her

respective rights. For example, reference to only email address may not be enough for ensuring proper communication of the DPO with older data subjects. Moreover, “DPOs must be able to speak in the language of the average citizen, not in technical or legal jargon, to handle requests and complaints from data subjects” (Shaw, 2017a). The DPO must be in a position to efficiently communicate with data subjects and cooperate with the supervisory authorities concerned in the language or languages officially used in the Member State. In most cases when a single DPO is designated for an international group of companies, this would not be possible without local data privacy experts who assist the DPO.

Article 37(7) GDPR does not specifically require that the published contact details should include the name of the DPO as well. It is up to the controller / processor and the DPO to decide whether this is necessary or helpful in the particular situation. However, it may be a good practice to do so. Moreover, communication of the name of the DPO to the supervisory authority is essential in order for the DPO to serve as a contact point (Article 39(1)(e) GDPR). This is also the reason for maintenance of a public register of the organization’s DPOs by the supervisory authorities.

According to Article 37(3) GDPR, a single DPO may be designated also for several public authorities or bodies, taking into account their organizational structure and size. The same considerations with regard to resources and communication would apply.

In order to ensure that the DPO is easily accessible for Member State data subjects, the WP29 recommends that the DPO is located within the EU, no matter where the controller or the processor is established.

Further “there is no limitation on the length of tenure for a DPO. But that does not prevent companies from appointing a DPO for a fixed term. Nor does it prevent companies from terminating the role upon notice.” (Pothon, 2018).

Expertise and skills required for the DPO

Article 37(5) GDPR provides that the DPO “shall be designated on the basis of professional qualities and, in particular, expert knowledge of data protection law and practices and the ability to fulfill the tasks” that are prescribed by the GDPR. It is important to note that the necessary level of expert knowledge should be determined according to the data processing operations carried out and the protection required for the personal data being processed, meaning that bigger organizations processing large amount of personal data, especially sensitive data, will need narrowly qualified professionals who are fully dedicated to data privacy in the organization. There may also be a difference depending on whether the

organization systematically transfers personal data outside the EU or whether such transfers are occasional.

It is relevant that the DPO must have expertise in national and European data protection laws and practices and an in-depth understanding of the GDPR. Understanding of the business sector and the organization type of the controller or the processor is also of significant importance.

Main tasks of the DPO

Once designated, the DPO must be involved “properly and in a timely manner in all issues relating to the protection of personal data” (Article 38 GDPR) within an organization. It is crucial that the DPO’s engagement starts from the earliest possible stage. Even, in relation to DPIA, the GDPR explicitly provides for the early involvement of the DPO. In addition, the DPO is seen as a discussion partner and best adviser within the organization related to data privacy. Thus, it is recommended that the DPO is invited to participate regularly in meetings of company’s senior and middle management.

Furthermore, the DPO must be promptly consulted once a data breach or another incident has occurred. In case of disagreement between the management body and the DPO, it is advisable that the reasons for not following the DPO’s advice are documented.

In order to effectively perform his/her work, the DPOs “have many rights in addition to their responsibilities. They may insist upon company resources to fulfill their job functions and for their own ongoing training” (Heimes, 2016), including financial resources, infrastructure like premises, facilities, equipment, and staff, where appropriate. For achieving proper conduction of data processing operations, an official communication of the designation of the DPO, its role and functions, to all staff within the organization is required. DPO should best be given access to other services, such as HR, legal, IT, security, etc.

Furthermore, DPOs must be given the opportunity to stay updated with regard to developments within the field of data protection and constantly increase their level of expertise by participating in training courses on data protection, workshops, etc.

The main tasks of the DPO includes, but are not limited to the following:

- Monitoring compliance with the GDPR. DPO “should assist the controller or the processor to monitor internal compliance with this Regulation” (Recital 97 GDPR). Monitoring of compliance does not mean that DPO is personally responsible for non-compliance. The responsibility always stays with the data controller / processor.
- Conducting a DPIA (Article 35(2) GDPR)

- Cooperating with the supervisory authority and acting as a contact point
- Record-keeping

Under Article 30(1) and (2) GDPR, it is the controller / processor, not the DPO, who is required to maintain a record of processing operations or processing activities. However, in practice, DPOs often hold registers of processing operations based on information provided to them. This practice has been established under many current national laws and under the data protection rules applicable to the EU institutions and bodies.

Responsibility of the DPO for non-compliance with the GDPR

According to the GDPR concepts DPOs should not be dismissed or penalized by the controller / processor for performing their tasks. This requirement strengthens the autonomy of DPOs and helps ensure that they act independently and enjoy sufficient protection in performing their data protection obligations. It has to be noted that penalties, that are not allowed, may take a variety of direct or indirect forms, for example: absence or delay of promotion, prevention from career advancement, denial from benefits that other employees receive, etc. However, a DPO could still be dismissed legitimately for reasons other than dully performing his/her tasks as a DPO (e.g. in case of theft, physical harassment or other disciplinary violations). Finally, the complication to be proved that the dismissal of the DPO is due to his/her non-performance as an employee and not because the management does not approve his/her decisions as a DPO (e.g. in a situation he/she objectively defends the data subjects' instead the company's rights and interests) is strong argument for appointing external DPO.

However, "while outsourcing is typically a risk treatment technique that allows for the sharing of risk with the outsourcing firm, that is not really the case in the outsourcing of the DPO role. Data subjects can initiate litigation against controllers and processors under the GDPR for damages resulting from infringements of that regulation, but there is no specification for data subjects bringing a claim against a DPO" (Shaw, 2017b).

Conflict of interests

Other complication for designating an employee to be the company's DPO is avoiding the potential conflict of interests. The conflict of interests is closely linked to the requirement that the DPO acts independently and impartially. This means that, in fulfilling their obligations, DPOs must not be instructed how to deal with a matter, what result should be achieved, how to investigate a complaint or whether to consult the supervisory authority.

Although DPOs are generally allowed to have other functions, they cannot hold a position within the organization that leads to determine the purposes and the means of the processing of personal data, such as chief executive, chief operating, chief financial, head of marketing department, head of HR or head of IT departments, etc.

Furthermore, conflicting priorities could result in the DPO's duties being neglected in case one person shares the DPO function with another one in the company. Thus, establishing a percentage of time for the DPO function as well as drawing a work plan where the function is not performed on a full-time basis is a recommended practice.

CONCLUSIONS AND RESULTS OF THE ANALYSIS

The DPO is a new figure under the GDPR that was not known in the precedent EU data privacy regulation, although some Member State laws had already introduced it locally. Currently, the DPOs are main organization's advisors on data protection rules. Thus, they are often called "a cornerstone of accountability" since they facilitate compliance, while also acting as intermediaries between authorities, data subjects, data controllers or data processors by which they have been appointed.

The current analysis substantiates the understanding that appointing of a DPO can facilitate compliance and, furthermore, become a competitive advantage for business. That is the reason why many data controllers / processors who are not obligated to appoint a DPO, just do it, in order to prevent or at least to minimize the risk of complex issues, emerging with data subjects and supervisory authorities.

Although not personally responsible for non-compliance with the GDPR rules, a competent and skillful DPO, who has been in advance provided with enough autonomy, financial and technical support, would for sure save costs and company's resources in case of data breach incidents, claims and authorities' verifications.

The current study, although detailed, does not pretend to be exhaustive on the topic, but fulfills its main target to summarize the basic concepts regarding the DPO's function, expertise, responsibility and legitimate requirements, and, thus, assist the data processors and data controllers in practically making their choices on whether, when, how and under what circumstances to designate a DPO for their own organizations.

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Towards the Embeddedness of i-business (Platform-Based) Firms in the GVCs of Modern MNEs

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ABSTRACT: Today i-business (platform-based) firms are boosting their capitalization compared to traditional linear businesses due to joint value creation together with other participants forming a business ecosystem, namely complementors, supply-side and demand-side users. The paper reveals the participants and components of value creation of platform products or services and covers the issue of the platform value chain. The main purpose of the article is to analyze platform-based firms' integration in the GVCs. It results in providing the model of i-business (platform-based) firms' value creation and the model of contemporary GVCs with i-business firms embedded in them.

Keywords: ecosystem, GVC, i-business (platform-based) firms, MNE, value creation.

JEL: F11, F23, L14.

I-BUSINESS (PLATFORM-BASED) FIRMS IN MODERN ECOSYSTEMS

I-business (platform-based) firms are business entities that fully use a platform business model (like Airbnb or Uber) or apply a platform business model and a platform strategy as a supplementary way to increase its income and compete among other MNEs in the world market. A platform strategy is a new and potent organizational strategy for delivering innovation and business transactions in a number of industries. Having adopted a platform supply strategy, Apple, Amazon, Nintendo, Microsoft, and Google have become one of the wealthiest technology companies in the world (Kim, 2015, p. 51). A platform business model is likely to involve a transaction occurring in a 'two-sided market' (Rochet and Tirole, 2003b; Rochet and Tirole, 2006) that consists of a component, a rule, and two sides (Eisenmann et al., 2006).

I-business (platform-based) firms are characteristic of functioning in the ecosystem, which is characterized by multiple outsourcing activities to external partners (Ikavalko, Turkama & Smedlund, 2018, p. 6). An ecosystem is defined as "the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialize" (Adner, 2017, p. 42). External partners in terms of platform are other participants forming an ecosystem, i.e. supply-side users (suppliers or sellers), demand-side users (customers), and complementors. Ecosystems with its platforms allow customers become

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collaborators through co-creation, what makes an ecosystem different from an integrated firm or a market (Ikavalko, Turkama & Smedlund, 2018, p. 6).

Analyzing companies estimates in “Best Global Brands 2018 Rankings” by Interbrand, it has been revealed that eight out of top ten (excluding Coca-Cola and McDonalds) companies have adopted in whole or in part a platform business model. Table 1 adapted on the basis of the work by Evans&Gawer (2016) indicates these companies below.

TABLE 1
Platforms by enterprise type

Structure	Hierarchical Organization + Physical Assets	Platform ecosystem	Companies	Platform	Position in Interbrand 2018
Asset Heavy		Mercedes-Benz	Moovel	8	
Mixed		Samsung Toyota	Tizen Linux	6 7	
		Amazon Apple Microsoft	App Store App Store Windows	3 1 4	
Asset Light		Facebook Google	Facebook app Google Play	9 2	

VALUE CREATION INSIDE THE ECOSYSTEM

Michael Porter’s value chain concept is one of the most valued concepts and backbones in economics. The product value chain refers to the interlinked chain of organizations and value-adding activities by which a firm or firms convert inputs into a higher-value product or service for the market. Its framework reveals the nature of internal processes of the enterprise aimed at value creation and comprises two kinds of activities, namely primary and support. Primary activities typically include 1) supply management of inbound parts and materials, 2) manufacturing operations, 3) outbound distribution or logistics, 4) marketing and selling, and 5) after-sales service. Research and development and supporting activities and services underpin support activities of the value chain (Porter, 1985) (Fig. 1).

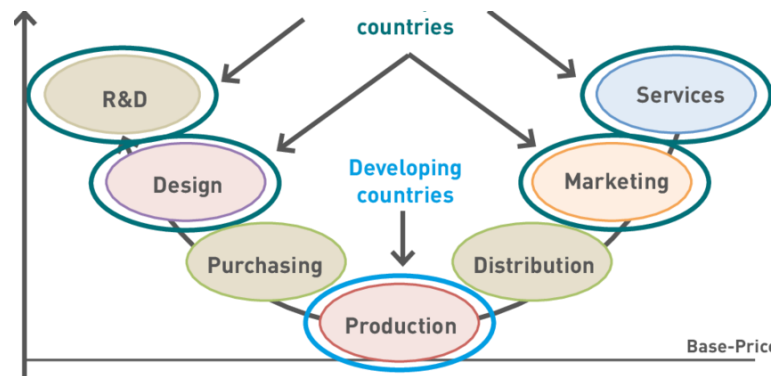
FIGURE 1
Porter’s product value chain



Source: Porter, 1985.

In terms of international business, there is another model widely applied in the study of MNEs’ performance in international trade. It serves the base for most papers dedicated to the study of MNEs’ value chains. Gary Gereffi provided a fundamental global value chain (GVC) analysis, which originates from the commodity chain approach (Gereffi, 2016) and investigates relationships between multi-national companies, the “lead firms”, and other participants in international value chains (Fig. 2).

FIGURE 2
Gereffi’s Smile Curve of High-Value Activities in Global Value Chains

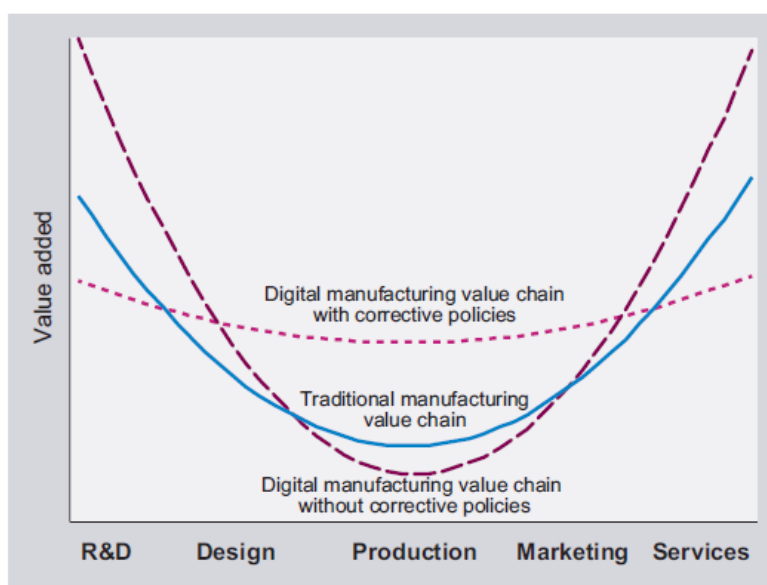


Source: Gereffi & Fernandez-Stark, 2016.

However, in the context of “Industry 4.0” period, a digitalization process transforms the manufacturing process in value chains. The following tendencies of digitalization are picking up strongly in global value chains:

1. Digitalization gives intangibles – R&D, design, blueprints, software, market research and branding, databases, etc. – a more prominent role in income generation, which makes services highly permeable in the goods sector;
2. New digital technologies allow materials to be redesigned, thereby reducing material use per unit of output, as well as reduce energy consumption and pollutant emissions;
3. New digital technologies enable more decentralized and flexible production and distribution and result in hyper-segmentation of markets, activities and technologies allowing even small producers catering to niche markets that need not be in geographical proximity;
4. Using new digital technologies may allow developing countries to add more value in their production stages and diminish the inequalities across the value chain on adopting different national and global policies (Fig. 3) (UNCTAD, 2018, p. 72-73).

FIGURE 3
Stylized manufacturing value chain smile curve



Source: UNCTAD, 2018, 72.

Constantly advancing information and communication technologies do not only give rise to the above mentioned tendencies and allow reducing transaction costs of dealing with outside entities and customers, but let companies capture and co-create value with a world of thousands of partners being members of business ecosystems centralized by a platform or platforms. Mechanisms which lie in the new models of business including ecosystem-based platforms are distinct from the traditional Gereffi's GVC model and include a core offering

being an intangible asset, complementary offerings and network effects generated on the basis of the platform.

Referring to Van Alstyne, Parker & Choudary (2016), the core offering, or the key strategic asset, in the platform is “**control and use of digitized data** to organize and mediate transactions between the various actors in the chain, combined with the capability of expanding the size of such ecosystems in a circular, feedback driven process”. The latter is called ‘network effects’ and will be described below. It should be stressed that the core offering of the platform is viewed as a service.

Comparing market-based arm-length deals, purchases via integrated firm or supply chain and ecosystem-based structure, **complements** exist in three cases (WEF, 2019). Whereas complements for a platform offering inside an ecosystem are selected by an ecosystem orchestrator, i.e. a platform company, thus, improving a range of complements forming a curated set for customers. According to M. Jacobides (2019), ecosystem gives freedom, but its freedom has its established limits. This is one of the crucial peculiarities of the ecosystem-based platform, which is unique in getting profit from immense minimizing transaction and search costs due to creating a source for positioning a set of offerings selected by the platform company. Customers neither waste time on searching for complements for their core offering and verifying if the supplier-side provides a high-quality offering to deserve trust in case of the market model nor buy a package offering formed by the system integrator, like in the integrated firm.

Another specific mechanism of value creation in the platform is **network effects**. Like complements, network effects also exist in the traditional market and the hierarchically integrated firm, while its concept is revisited. Referring to J. Kim (2015), “the ‘network effect’ emerges from this ‘transaction’ because transactions in two-sided markets create value by facilitating interactions between the different sides”. The author also underlines the fact that this ‘network effect’ creates a ‘business ecosystem’, and ‘innovation’ ensues from the ‘business ecosystem’ (p. 28). The conventional value chain implies that there exists only direct network effect, while in case of ecosystems there are both direct and indirect network effects.

Direct (one-side/same-side) network effects imply the dependence of the overall value of a product/service on the number of users, i.e. the more users are attracted, the higher the value of the product/service is. These network effects are applicable both to linear and platform businesses.

Indirect (cross-side) network effects entail the dependence on the number of more categories of users indirectly connected via a platform and influencing the platform viability. In other words, ‘with indirect network effects, the value of the service increases for one user group when a new user of a different user group joins the network’ (Johnson, 2017). Since platform-based companies have two categories of users – supply-side and demand-side users – platform companies can achieve indirect network effects. Although both types of network effects add value to the platform, indirect network effects are more powerful, since they critically influence the exponential growth of platform-based companies with peer-to-peer relationships (Johnson, 2017).

It is proposed to define network effects occurring as a result of transactions among platform participants, taking into account the existence of two network effects:

A network effect is a phenomenon of the platform value increase which depends on the growth of platform users and complementors.

Apart from mechanisms of value creation inside the ecosystem-based platform, the value chain itself undergoes transformation when platforms come to a play in business. In the conventional Porter’s and Gereffi’s value chain, producers are located on the left side while consumers are located on the right side, the value flowing unilaterally from the left to the right. Nevertheless, the value chain of platform companies has its structural and relational changes, since the platform business model entails platform owners’ establishing relationships both with producer and consumer groups, which “maximizes the interaction between both aspects (or multi aspects) of mutually different properties of the value chain and thereby create an ecosystem” (Eisenmann et al., 2006).

Having made the overview of the major sources generating value inside an ecosystem-based platform company and argued that there appear value chain transformations when platform business models are applied, it is logical to consider types of the value chain model in a platform. In his analysis of platform business models in accordance with the value chain, Kim (2015) identifies three types of value chains transformation, namely an external expansion of the value chain, a reverse flow of the value chain, or an integration of the value chain (p. 30). The results of this study indicate three types of platforms:

- 1) producer-oriented platform (supplier type);
- 2) consumer-oriented platform (tailor type);
- 3) both-oriented platform (facilitator type).

In the producer-oriented platform, a normal value chain starts from the supply side. This means that the producers deliver certain products or services to their consumers through the

platform. However, there is no reverse flow value chain, because producers create values to the customers via a platform. The development trajectory of these platforms is the expansion of the value chain with rising networks, adopting an inter-organizational value chain, becoming a competitive advantage absent in case of a conventional internal value chain. The producer-oriented platforms include value creation, but no value co-creation, since supplier type chains are producer-centered. The author, however, postulates on the existence of both direct and indirect network effects in the producer-oriented platform. There are such examples of 1st-type platforms as eBay's open market, Microsoft Windows, Amazon's Kindle e-reader provided by the author of the classification.

The consumer-oriented platform is distinct from the producer-oriented one in its consumer-centered approach. According to Kim (2015), the consumers request products or services from the producers through a platform and then the producers produce and deliver them to the consumers through the platform, therefore, consumers taking the lead in the use of the platform. It comes from this that the source of value creation is the customer, generating both value creation and value co-creation together with platform stakeholders (p. 166-167). Both direct and indirect network effects take place in the consumer-oriented platform. They include such platforms as Google AdWords, Samsung AdHub and others.

The third type of platforms – facilitator-type, or both-oriented, platform – presupposes that platform participants become and act as both a producer and a consumer, i.e. consumers and producers both produce and consume products and services through the platform. Providing its examples of Facebook, Instagram, YouTube, etc., the author explains that normal and reverse value chains happen simultaneously, making both value creation and value co-creation occur. Consumer- and producer-oriented approaches facilitate both direct and indirect network effects.

The Platform Types Framework is given below (Table 2) based on value chain, value creation and network effects and adopted from Kim's (2015) classification (p. 156).

TABLE 2
The Platform Types Framework

Platform Type	Platform subtype	Value chain	Value Creation	Network Effects	Platform Examples
Producer-oriented (supplier type)	Online distribution platform, open market platform, app store platform, game console platform, e-book platform, etc.	Normal value chain (value chain starts from supply side)	Value creation	Direct network effect	Ebay, Kindle, Microsoft Windows, Nintendo, etc.
		N/A	N/A	Indirect network effect	
Consumer-oriented (tailor type)	Online ad network platform, idea platform, appropriate technology platform, etc.	N/A	Value creation	Direct network effect	Daum Map Platform, Dell Computer's PC, Google AsWords, Kickstarter's idea platform, etc.
		Reverse (flow) value chain (value chain starts from supply side)	Value co-creation	Indirect network effect	
Both-oriented (facilitator type)	SNS platform, blog platform, virtual communities platform, social audio/video platform, etc.	Normal value chain (value chain starts from supply side)	Value creation	Direct network effect	Blogger, Facebook, Google YouTube, Instagram, Record Farm social audio, Naver Challenge webtoon, Yahoo answers platform, etc.
		Reverse (flow) value chain (value chain starts from supply side)	Value co-creation	Indirect network effect	

I-BUSINESS FIRMS' EMBEDDEDNESS IN GVCS OF MODERN MNES

Platform companies owe different legal status in the market depending on whether it is an autonomous business entity introducing a unique, innovative offering to the world and, thus, creating a new market, or it is a unit of a vertically integrated MNE willing to increase its value and become more competitive in the world market. Based on these considerations, there is a proposal to differentiate between two scenarios of platforms' embeddedness into the GVCs of MNEs.

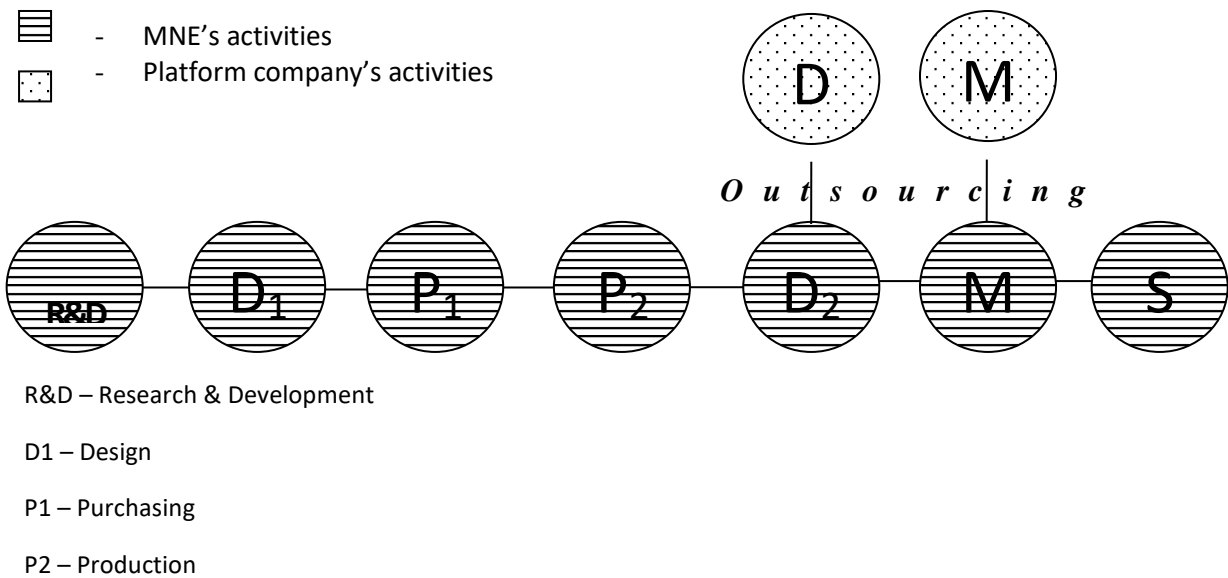
Scenario 1 – Platform companies are full players of the market and own one activity of the value chain, revisiting Gereffi's Smile Curve; MNEs outsource distribution or marketing using platform companies.

This scenario means that MNEs are platform companies controlling distribution/marketing, i.e. performing as a new market for other sellers of products/services in the ecosystem.

For instance, Alibaba is an enormous marketplace for millions of sellers distributing their offerings through its affiliated entities (Alibaba.com, AliExpress.com, Taobao.com, Tmall, Ele.me). Other activities – R&D, design, purchasing, production, services, etc. – are borne by the supply side and, thus, the supply side responds for their value creation.

Therefore, platform companies generate new markets and enable sellers to capture additional value on entering this market while the supply side producing offerings outsource platform companies' activities to capture additional value. MNEs outsource marketing, becoming themselves users of the platform company (Fig. 4).

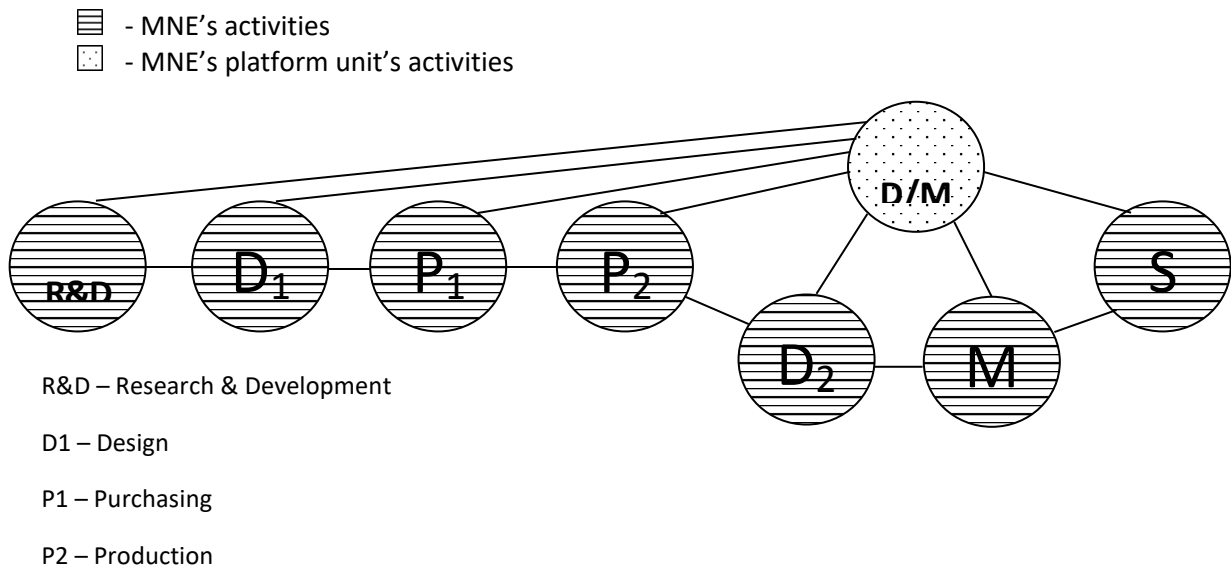
FIGURE 4
GVC model of MNEs outsourcing platform companies' activities



Scenario 2 – MNEs' platform business models complement to the value creation of the whole value chain

The second scenario bears the idea that linear MNEs embed a platform business model in their formed GVC. This means that linear MNEs create a platform themselves, like Apple embedded Appstore platform, and make it a fully engaged unit of the business. MNEs use FDI to launch their platforms, however MNEs' relationships with platform users (complementors, suppliers and customers) entail the modular governance type (Fig. 5). What is worth underlining is that a platform is engaged in all stages of product value creation: since the inception of creative ideas and R&D up to service provided after selling an offering.

FIGURE 5
GVC model of MNEs embedding platform business models



It should be kept in mind that the activities of platform companies in both scenarios comprise their capability to match sellers and buyers avoiding transaction and search costs.

It is also of note that platform companies are a part of the ecosystem, which in its turn allows the supply side to use the following value mechanisms, namely complementary products or services to the offered core products and network effects. Thus, the value chain of either platform companies as part of the ecosystem or linear MNEs using the platform business model get value co-created by ecosystem members apart from the value included in the production, marketing and servicing of the core product (Fig. 3).

The concluding contribution to this research is the original comparative analysis based on works of Akbar & Tracogna (2018), Deloitte University Press (2015) and Rong, K. et al. (2018) (Table 3). This table helps view what the main differences between the linear MNE's GVC and ecosystem-based platform's GVC are.

TABLE 3
Comparative analysis of linear MNE's and ecosystem-based platform's GVC

Criteria	Linear MNE's GVC	Ecosystem-based platform's GVC
Participants/ Value contributor(-s)	Lead firm Affiliates Individual firms	Lead firm Complementors Suppliers Customers Potential non-platform contributors (institutions, industrial associations, local communities and other stakeholders)
Architecture/ Structure	Linear supply chain; Normal value chain	Ecosystem; Extended normal value chain/ Reverse (flow) value chain
Governance type	Modular Relational Captive Hierarchy	Modular
Scope of exchange	Vertical, multi-lateral with one common party	Bilateral, mediated by the platform
Value mechanisms	Package offering Ownership FSAs Location FSAs	Intangible core offering Complementary product(-s) Network effects

The results of this study show that there is a growing number of MNEs using platforms to compete in a constantly developing business environment either initially being asset light companies and gaining exponential growth due to innovation-intensive strategies opening new, never existing markets, like Airbnb and Uber have done, or asset heavy and mixed international enterprises adopting platform business models as well. Another important finding was that ecosystem-based platforms source value creation from three major mechanisms: a core offering being an intangible asset, complementary offerings and network effects. It was also found that there exist three types of value transformation when companies use platform business models. They are an external expansion of the value chain, a reverse flow of the value chain, or an integration of the value chain. Hypothesizing on the scenarios of i-business (platform-based) firms' embeddedness in GVCs of modern MNEs, two scenarios were formulated. Both of them presuppose the modular governance type. However, MNEs of the first scenario outsource distribution/marketing, becoming themselves users of the platform company. The second scenario MNEs use FDI to launch their platforms, the latter being their embedded business model as a constituent part of the whole entity.

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Sustainable Development Goals 2030 Challenges to SEE Listed Companies and Corporate Governance

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ABSTRACT: This paper is about corporate governance (CG) in Southeast Europe. The objective is to examine how listed companies in the region adapt their corporate governance policies to the Sustainable Development Goals 2030. Our previous research findings, as well as certain theories, which serve to explain the substance of corporate governance are embedded in the conceptual framework of this study. In the course of our work we referred to academic publications and business data. Discussions related to this topic, recommendations and areas for future research finalize the paper.

Keywords: corporate governance, listed companies, stakeholders, disclosure, SDG2030.

JEL: G34, G38.

ABOUT CORPORATE GOVERNANCE, ITS CHANGING MILIEU AND SDG 2030

This paper accepts the well-known OECD CG definition: "it involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined" (OECD CG Principles 2015). It is relevant to point out that CG is associated with capital markets, listed companies and investors, as well with disclosure of information and stakeholders. Those familiar with the development of corporate governance are aware that economic and financial crises, as well as the interventions of capital market regulators, can modify the tools of CG. Deviations in the functioning of capital markets are quickly corrected by new rules and laws. The lessons learned from the global financial crisis in the first decade of the 21st century have not faded from memory. The present day economy as a whole and capital markets in particular, are subject to new types of shocks - changes in weather patterns, GHG emissions, etc. Climate change is irreversible - the pendulum will never swing back to its original position. Contemporary CG governance is adapting to this changing environment. Our previous studies conclude that corporate governance, an inherent element of the private sector, functions in an atmosphere of significant environmental change, forcing it to take into account initiatives for sustainable development (e.g. EC Action Plan for financing Sustainable Growth 2018), including the Sustainable Development Goals 2030 (Boeva 2019). These

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Goals, which were unanimously endorsed by many governments the world over are gradually transformed into measures for private sector organizations including many businesses and professional bodies. (Bebbington, Unerman 2018)

Do the existing practices and theories offer sufficient evidence about the relationship between corporate governance and SDG 2030? And in addition, do the different goals and targets impact the decisions of shareholders and investors, as well as the behavior of corporate boards? These are some of the questions the authors plan to answer in this work.

A review of publications and company data revealed that certain listed companies disclose information about the SDG. Among the non-financial reporting formats in use a new trend in information disclosure - disclosure pursuant to 17 sustainable development goals by 2030 - becomes apparent. PricewaterhouseCoopers's (PwC) study on the way in which companies report data about their business with respect to the 2030 SDG offers answers to a certain level. The survey which utilizes data from 25 companies registered in the Netherlands states that three of the 17 goals most often reported on are: reducing greenhouse gas emissions, energy efficiency and women's participation in corporate governance. In contrast, information on equal pay for men and women and the impact of company activity on marine ecosystems are the least reported. The results of the survey also indicate that there are limits to this process. Respondents have pointed out the lack of quantifiable indicators as a hindrance to the disclosure information to meet SDG goals. A key insight in the study, vital to the disclosure of information on the sustainable corporate governance, is in the conclusion: most companies report on sustainability issues at HQ level. Supply chain issues (labour conditions, inequality), resp. SDG 8 (decent work and economic growth) and SDG 10 (reduced inequality) are not addressed.

Two prominent actors in CG community, the Global Reporting Initiative (GRI) and the UN Global Compact, go beyond disclosure per se and state that the future of disclosing non-financial information is linked to reporting on the ways companies have developed and implemented strategies that are subordinate to sustainable development goals (GRI, UN Global Compact 2017). This statement echoes SDG 12.6: "Encourage companies, especially large and transnational companies to adopt sustainable practice and to integrate sustainability information in their reporting cycle" (SDG 2015).

Recent information reveals the leadership role of institutional investors in the accomplishment of SDG 2030 by the business sector. Known for their contribution to sustainable CG (PRI 2006, Boeva 2019), it is only natural to find institutional investors promoting SDG 2030. Numerous institutional investors (Dutch pension funds PGGM and

APG, the US pension fund CalPERS and the Australian Cbus) are increasingly seeking to align their portfolios with the ambitions of the SDGs and are channelling investments into organizations that can demonstrate a robust SDG impact (Gomme 2019). Gradually owners of listed companies (both national and transnational) impose new SDG priorities for board members and CEOs.

In a nutshell, the evidence suggests that certain CG policies are impacted by SDG 2030 as a whole and in terms of specific targets (12.6)

A review of theoretical publications provides us with limited answers to the questions, that have been raised in the previous pages. We have found evidence that certain scholars advocate research on SDGs through the lens of CG-related academic disciplines: human resource discipline (Zarestky, Collins 2017), accounting studies (Bebbington, Unerman 2018). Studies on the interrelation between SDG 2030 and corporate governance have not been discovered.

An examination of the statements made by the academic community and recommendations by practitioners leads to the conclusion that the current studies offer limited possibilities to meet the objectives of this paper. Logically, we move on to the elaboration of a conceptual framework for our research.

CONCEPTUAL FRAMEWORK: OPPORTUNITIES AND LIMITATIONS FOR CONDUCTING RESEARCH

The corporate governance phenomenon is studied via a number of theories, the most popular of which among scholars are: *the agency theory, the institutional theory, the legitimacy theory, as well as the resource based theory, the stakeholder(s) theory* (Aguilera et al. 2019). Our studies (Boeva 2019) have concluded that sustainable development issues that challenge contemporary corporate governance are best examined by a combination of these theories. Having in mind the essence of SDG 2030 and the nature of corporate governance we arrived at the institutional theory. The institutional theory focuses on the external factors of the social and economic environment and their impact on a company's performance. The analysis of these factors helps the researcher to understand the relationship between corporate behaviour and the wider social environment within which a company operates. Thus, in order to meet public expectations and to achieve better results, a company must be responsive to the impact it has on the environment (Dagiliene 2014). Although the adherence to one theory sets some limits for researchers, we decided to test the adequacy of the institutional theory to the scope

and objective of our study. With regard to the institutional theory we have structured our research and paper as follows:

1. *A review of regional and national SDG 2030* of SEE country initiatives and their impact on business;
2. *A study of listed companies in SEE countries(11), their corporate governance policies with regard to SDG2030* and of national CG codes. For each SEE country the sample encompasses top listed companies (in terms of capitalization). The research strategy envisages the study of the status quo of the national Stock Exchange and, in particular, their membership of UNCTAD Sustainable Stock Exchange Initiative (SSE Initiative);
3. *A study of corporate governance practice* of listed companies

THE RESEARCH AND THE RESULTS

Regional and National Policies

As is well known, certain SDG2030 goals and targets are embedded in various international, regional and national documents, such as the Paris Climate Agreement, various EU policies, strategies and action plans. SDG 2030 offer a holistic approach to sustainable development issues. With this in mind, we also examine regional initiatives. At such a regional level the *SEE 2020 Strategy* (Regional Cooperation Council 2013) promotes goals that correspond (although this is not explicitly articulated) to SDG 2030. The **"Sustainable Growth Pillar" Strategy** advocates enhancing private sector involvement in water infrastructure (SDG 11), coordinating efforts to improve business integrity by CRS rankings and best practices (SDG 12,16,17). It also envisages measures for ensuring greater access of the business sector to finance and capital market integration (Regional Cooperation Council 2013). The lack of sufficient information about the impact of the Strategy on the business in the region (reports of the Process for regional cooperation)and the lack of data about the interplay between the norms on macro-level and the players on micro-level have brought disappointing results. The preliminary accepted core ideas of the institutional theory do not match the facts.

The research was directed at the *activities of a regional development bank – the Black Sea Development Bank*. The analogy method of research determined our interest: regional banks in other parts of the world report on financing initiatives for the achievement of SDG 2030 in their respective regions. A careful examination of official documents, posted on the Black Sea Development Bank website poses the question about the extent to which institution

uses its financial instruments to promote the achievement SDG 2030 by its member-states and the business community in the region.

With regard to *the conceptual framework*, the next step of the research was aimed at establishing the way the regional countries work on accomplishing the SDG 2030 and the associated results. Using the latest data (Sachs and others, 2019), we developed a table with information about these results for every SEE country (Appendix A). The structure and content of the Table are synchronized with the objective of the paper and incorporates:

1. data about the competitiveness of every country; level of disclosure – a leading CG principle, level of development of the capital market (ranking in Global Competitiveness Report 2018/2019);
2. data about achievement specific SDG 2030 by SEE countries and the associated challenges (Sachs et al. 2019).

In accordance with the objective of the paper - the interplay between SDG 2030 and corporate governance, 5 countries with capitalization that is equal to 0% of GDP or is otherwise insignificant are excluded from our analysis (in this case, Albania, Armenia, Azerbaijan, Georgia and Moldova) ³. Corporate governance is a component and driving force for capital markets on one hand and an instrument for the redistribution of capital, on the other (i.e. resource based theory).

What does the analysis of the data in Table1 (Appendix A) reveal?

1. An interesting correlation (a juxtaposition of two different rankings) can be observed between the level of competitiveness and level of achievements of SDG 2030 in certain SEE countries (Appendix A). Slovenia, which is a regional champion in terms of competitiveness (GCR2018/2019 is also the regional leader in complying with the SDG 2030. Bulgaria ranks 3rd in terms of competitiveness and 3rd ranking in achieving SDG 2030), Romania, is respectively 6th and 4th and Serbia - 7th and 7th;
2. The results for certain countries do not show a correlation: Croatia, Cyprus, Moldova, Turkey (see Appendix A);
3. More than 50% of the countries in the region achieve Goal N1 - "end poverty in all its forms everywhere", i.e. Goal N1 has the highest frequency in terms of achievement;
4. The most problematic goal for SEE countries to achieve ("major challenges remain") are Goal 13 - "take urgent action to combat climate change and its impact" - a major

³ My personal experience in CG projects (training and consulting on CG Codes) in three of the above countries is not sufficient to support our database (Prof. D.Sc.(Econ.) Bistra Boeva).

challenge for 50% of the countries under study, followed by Goal 14 - "conservation and sustainability of oceans, seas and marine resources for sustainable development" - a big hurdle for 45% of the countries.⁴

The estimations of independent evaluators (Sachs, J. et al., 2019) about the accomplishment of SDG 2030 throws light on the situation in every country. Information about the contribution of governments is limited only to OECD member countries: Greece, Slovenia and Turkey. Their governments are engaged in the submission of data about the progress related to SDG 2030. Only Slovenia reports about allocation of funds from the national budget for achieving the goals. Both Greece and Slovenia informed that their national institutions monitor on the progress of achievement of SDG2030. In alignment with the objective of the study we would like to point that the Greek and Slovenian authorities report on engagement of the stakeholders in their SDG policies.

The above information pictures a general framework about the achievement SDG 2030 in SEE country. In other words, it deals with the passive role of institutions on a macro-level.

Capital Market Regulators and Self-Regulators

In accordance with the objective of the paper, our research was directed at other institutional levels - national capital market regulators and their policies in relation to SDG2030. The study of official information (from web sites) did not reveal much related information. However, it merits to point out a few satisfactory cases in the region: the Bucharest and Istanbul Stock Exchanges have joined the Sustainable Stock Exchange Initiative(SSEI). The SSEI (which counts approximately 90 national stock exchanges as its members) encourages capital markets to promote sustainable development for issuers and investors, such as non-financial information disclosure and financial products (green bonds etc. that contribute to sustainable financing. Borsa İstanbul began to calculate the BIST Sustainability Index in November 2014. The index aims to provide a benchmark for Borsa İstanbul companies with high performance on corporate sustainability and to increase the awareness, knowledge and practice on sustainability in Turkey. The brief review on the role of institutions does not offer arguments in favour of the institutional theory. Even though SDG 2030 are among the factors that determine the milieu in which businesses operate, information about the institutions that shape the behaviour of listed companies is very limited or negligible.

⁴The levels of achievement of SDG 2030 are: achievement; challenges remain. Significant challenges remain; major challenges remain (Sachs 2019).

SEE Listed Companies, Corporate Governance and SDG

The research objectives and research strategy focus on listed companies in 11 SEE countries: for every country the sample includes the 10 top listed companies (companies with highest level of capitalization). Although multilingual web formats are very useful, the language barrier hinders the careful examination of websites of certain companies in the region. Culture matters in researching international corporate governance (Aguilera et al. 2019). We split the companies under observation into two groups:

1. Listed companies with clear articulation in their sustainability reports of the integration of SDG 2030 in their business model and disclosure policy/ CG policy.
2. Listed companies that communicate in their sustainability reports objectives such as tackling climate change or reducing GHE etc., without a clear reference to SDG.

Within the *first group of companies*, the country profiles are limited to companies from Croatia, Greece, Serbia, Slovenia and Turkey, which communicate SDGs as a component of their business model, strategy and non-financial disclosure (sustainable reports). In terms of ownership, business operations and internalization, holdings, multinational ownership (incl. Russian), the transnational mode of business and double listing dominate in this group. Most of the first group companies are from the energy and transport sectors. These companies are domiciled in EU and non-EU member European countries. The scope of SDG 2030 that the SEE business aims to achieve or has already achieved is broader than the scope of SDG 2030 communicated by Dutch registered companies, mentioned in the beginning of the paper (E&Y report 2015). One also has to consider the time factor: the sources used were published in 2018, whereas PwC data refers to 2015.

According to our findings, SDG 2030 with highest frequency are 8, 9, 12 and 13, i.e. these goals are most often reported by the companies. In the course of benchmarking the achievement of SDG 2030, resp. the challenges by countries with companies data (data from their websites) one could find different results. The only coincidence that could be observed is Goal 13 - a major challenge for the States in the regions (Appendix A)

From the corporate governance perspective it should be noted that SDG 12/ target 12.16./ is the only one that strictly refers to CG pillars and policy. Going back to the PwC findings (mentioned in the beginning of this paper) it is not difficult to conclude that certain CG practices of the companies SEE countries are similar to certain CG practices of Dutch multinationals. At the same time, SDG 8 and 9, that are not addressed by Dutch multinationals, are reported as objective by SEE listed companies. By using the PwC report as a reference to better understand these two Goals - companies' relations with the suppliers (Global Supply

Chains) - one could cautiously conclude that SEE companies aim to adhere to CG principles (respect for stakeholders) as well as to one of the most topical issues of sustainable corporate governance (Boeva 2019). Further research could provide more arguments that prove or reject this conclusion.

Among the results of our analysis, we could mention that EU membership, *vis-a-vis* Turkey, does not preclude certain listed companies from engaging with SDG 2030. In the case of Turkey two important conclusions can be considered relevant: a) the country's OECD membership encourages responsible business activities (2015 OECD) and b) the scope of SDG 2030, embraced by Turkish listed companies as a whole, excludes SDG 16 – e.g. the promotion of the rule of law, strengthening institutions and tackling corruption, etc.

Concerning the *second group of SEE listed companies*, which have communicated an engagement with sustainability targets, but which have not articulated a desire to adhere to SDG 2030, the research revealed a larger number of listed companies than in the first group. Listed companies in the region (e.g. Bulgaria, Montenegro, Romania, Serbia, Ukraine) have begun to adapt their business model and corporate governance to the sustainable development issues or are otherwise engaged with the SDGs in some way (Gomme 2019).

Summarizing the results of the research and reflecting on the objective of the paper, it should be said that there is a certain impact of SDG2030 on CG of listed companies in SEE region - the area of disclosure and to a certain degree some boards functions - sustainable strategies. The active position of investors: institutional, individual and the State is not reported in the company documents. There is another missing link - the research did not uncover information about the leadership position of board members in the activities associated with achieving SDG 2030.

DISCUSSION ON WHETHER OUR RESEARCH STRATEGY AND CONCEPTUAL WORK FACILITATE THE RESEARCH

The conceptual framework and the implementation of the core ideas of the institutional theory have determined the research strategy and research work. The findings do not prove the validity of the theory. In SEE countries we have found limited documentation and information that could be used as reliable evidence. It could be stated that the *legitimacy theory and the stakeholders theory* offer a theoretical explanation about the behavior of the listed companies and certain self-regulators (e.g. stock exchanges). The companies' focus on SDG 2030 is to obtain a "social license" to operate, to partner with stakeholders, to attract investors, to build

resilience to costs on requirements imposed by the goals (SDG Compass 2018) and, last but not least, to enhance their competitiveness.

In terms of the objective of the paper the results of the study are limited, but are not discouraging to the authors. It has been proved that disclosure of the companies integrates sustainability information incl. information about SDG 2030 companies. A careful reading and analysis of sustainability reports offers arguments that certain CG principles and policies are impacted by these Goals, such as disclosure, company strategies and stakeholder policy. We have not uncovered information about the corporate boards leadership position on the road to achieving certain SDG, which are relevant to the respective company profile. Lastly, the analysis of top listed companies in each SEE country revealed an engagement on the part of these companies in environment protection initiatives, the improvement of labour conditions and in the support of local communities. Explicitly or no –explicitly most of the listed companies in SEE countries are working on the achievement on certain SDG.

CONCLUSIONS, CONTRIBUTION, RECOMMENDATIONS AND FUTURE RESEARCH

Contribution

The paper illuminates important issues about the interplay between SDG 2030 and corporate governance. It aims to evolve previous research conducted by the authors about sustainable corporate governance with a new specific focus - SDG and the challenges for listed companies in SEE.

The paper and the research results contribute to the study and knowledge on sustainable corporate governance within the SEE region. The work of the leading author in the region as a PSAG member(IFC) will facilitate the dissemination of the knowledge among practitioners in the region.

Recommendations to Practitioners

The results signal that companies in many SEE countries still follow “wait-and-see” type strategies - they expect laws and regulations that provide them instructions on how to adapt their business models and corporate governance to the new realities. The practice and experience of the corporate “champions” could be a source of valuable information. The regulators of capital markets role have to become ”translators” for the adaption of guidelines and SDG indicators to the needs of the capital markets. Existing guidelines for non-financial reporting and climate related disclosure could contribute to tailor the SDG 2030 to the business models and CG.

The Future area of Research

The studies and publications on sustainable CG in SEE countries are limited and the findings of our research have revealed new topics for research. It is feasible and also necessary to examine the leadership role of corporate boards and institutional investors in the process of the achievement the SDGs, as well as any regional initiatives of capital markets and SDGs. The existence of many first-tier, second and third-tier suppliers in the industries (Global Supply Chains for multinationals) in the region will also be of interest to research from the perspective of SDG 2030.

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APPENDIX A

Table SEE Countries: SDG2030 Achievement and Level of Competitiveness

Country	WEF/SEE ranking	market capitalization% GDP ranking/data	Disclosure /ranking/WEF	SDG ranking /scores	SDG achievement	SDG major challenges remain	status quo	SEE ranking/SEE leader	WEF ranking in the region
Denmark	10			1/85.2					
Albania	76/13	121/0.0%	76	60/70.3	none	2,3,8,10,13,14,16		10	13
Azerbaijan	69/10	119/0.0%	88	59/70.5	1	2,5,8,16		9	10
Armenia	70/11	110/2.6%	87	75/68.8	7	5,8,10,11		15	11
Bulgaria	51/3	86/14.4%	66	36/74.5	2,7,15	10,12	EU	3	3
Croatia	68/9	49/37.5%	109	22/77.8	1,17	no	EU	2	9
Georgia	66/8	121/0.0%	83	73/68.9	none	3,5,10,13,16		14	8
Greece	57/5	74/21.4%	119	50/71.4	none	4,13,14	EU/OECD	8	5
Moldova	88/15	116/0.3%	107	37/74.4	1,13,17	16		4	15
North Macedonia	84/14	72/22%	122	70/69.4	no	10,16		12	14
Romania	52/4	95/8.7	53	42/72.7	1,15	10,12,14	EU	6	4
Serbia	65/7	84/16.2%	108	44/72.5	1	13		7	7
Slovenia	35/1	89/13.6%	73	12/79.4	1,7	2,12,13,14	EU/OECD	1	1
Turkey	61/6	73/21.8%	93	79/68.5	none	2,4,5,9,10,13,15,16	OECD	15	6
Ukraine	83/14	77/20.3%	120	41/72.8	1,10	13,14,16		5	14
B&H	91/16	70/23.8	129	69/69.4	1	13,14		11	16
Montenegro	71/12	23/82.6	96	87/67.3	1,17	10,13,14,15,16		16	12
Cyprus	44/2	85/14.5	70	61/71.1	1	2,13,14,17	EU	10	2

Source: Global Competitiveness Report 2018/2019, WEF.G.

Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G. (2019): Sustainable Development Report 2019. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).

Legend: The levels of the achievement of SDG 2030 are: achievement; challenges remain. Significant challenges remain; major challenges remain (Sachs, J. and others 2019)

Red coloured data indicate formal correlation between progress in achievement of SDG2030 and the level of competitiveness

Blue coloured data indicate lack of correlation between progress in achievement of SDG2030 and the level of competitiveness

The Structure and Composition of Board of Directors and a Study on Companies Included in the Bist Corporate Governance Index in Turkey

Hülya Göktepe¹

ABSTRACT: The purpose of this study to analyze the structure and composition of the board of directors of companies listed in the BIST (Borsa İstanbul Markets) Corporate Governance Index. In this study, firstly, legal arrangements will be described related to the structure and composition of the Board of Directors in Turkey. Then it will be explained research related to the structure and composition of the board of directors of companies listed in the BIST Corporate Governance Index and the results of the research will be described. For this research, corporate governance principles compliance reports will be used. How many members is composed of a board of directors? Are there women board members? How many of the board members are executive, non-executive and independent members? How many of the board members are foreign (non-Turkish citizen)? The answers to these questions will be searched.

Keywords: Corporate governance, the structure of the board of directors, BIST (Borsa İstanbul Markets) Corporate Governance Index, the board of directors, Turkey.

JEL: G34, K2, M1.

LEGAL REGULATIONS RELATED TO THE BOARD OF DIRECTORS IN TURKEY

In Turkey, the board of directors has been formed in line with the regulations, provisions, and principles set forth in the Article 359 and 364 of Turkish Commercial Code, Capital Market Legislation and the Corporate Governance Communiqué issued by the Capital Markets Board.

In accordance with article 359 of the Turkish Commercial Code, *The joint-stock company shall have a board of directors which consists of one or more persons assigned by the articles of association or elected by the General Assembly. In the event a legal entity is elected as a member of the board of directors only one real person, determined by the legal entity on its behalf, shall also be registered and announced with the legal entity; in addition, the registration and an announcement shall be immediately declared on the company's Web site. Only this registered person can participate in and vote on behalf of the legal entity at the meetings. The members of the board of directors and the real person registered on behalf of the legal entity must be able to act in full capacity. If a member of the board of directors is terminated, then this person cannot seek re-election to the board of directors.*

There are no nationality and gender restrictions in the Turkish Commercial Code.

The new Corporate Governance Communiqué (II-17.1) came into effect on January 3rd, 2014 after being launched by the Capital Markets Board of Turkey (CMB). This

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Communiqué which is the main reference point for public companies today is based on Article 17 of the Capital Markets Law dated 30 December 2012 and numbered 6362. The Corporate Governance Principles are revised with this new Communiqué.

Under the Corporate Governance Communiqué, although public companies with shares traded on the stock exchange are subject to its mandatory Corporate Governance Principles, publicly held corporations whose shares are not traded on the exchange were not subjected to the Communiqué.

According to Corporate Governance Communiqué article 8; *Corporate Governance Principles Compliance Reports shall include information as to whether principles of corporate governance if not, it shall include a reasoned explanation with this regard and explanations as to whether the corporation has an amendment plan in the future within the framework of such principles in respect of the conflict of interest arising from the non-compliance to these principles and governance implementations of the Corporation. Principles as to the content and publication of the Corporate Governance Principles Compliance Reports shall be designated by the Board and the format of the reports shall be announced by the Board.*

According to Corporate Governance Communiqué; *The number of members of the board of directors, provided that the number is not less than five, in any case, shall be determined in order to ensure that the board members conduct productive and constructive activities, make rapid and rational decisions and efficiently organize the formation and activities of the committees. A majority of the members of the board of directors shall consist of members who do not have an executive duty. A Non-executive member of the board of directors shall be the person who does not have any administrative duty other than being a board member or any executive unit subsidiaries to himself/herself and is not involved in the daily work routine or ordinary activities of the corporation.*

There shall be independent members from among the non-executive board members who have the ability to fulfill their duties impartially. The number of independent board members cannot be less than one-third of the total number of board of directors. In the calculation of the number of independent board members, fractions shall be considered as the following whole number. In any case, the number of an independent board member shall not be less than two. The corporation shall determine a target rate provided that it is not less than 25% and a target time for membership of women in the board of directors and form a policy for this target. The Board of directors shall annually evaluate the progress with respect to achieving this target.

Both in the Turkish Commercial Code and the Capital Market Legislation, there is no ceiling stipulated for the size of the board of directors. Under the Turkish Commercial Code, the board of directors must be composed of one or more individuals. Under the Corporate Governance Principles, the board of directors number must not be less than five for companies subject to the Corporate Governance Principles.

Although there are no gender restrictions in the Turkish Commercial Code, the Corporate Governance Principles require companies to set a target ratio for women board members, which should not be less than 25%, and to create a company policy for the accomplishment of that target (*Article 4.3.9, Corporate Governance Principles*). Although there is no provision in the Turkish Commercial Code, both non-executive directors, and independent directors are recognized and required by the Corporate Governance Principles. Under the Corporate Governance Principles, a majority of the board's members must consist of non-executive members. In addition, the number of independent board members cannot be fewer than one-third of the total number of board of directors' members, and the independent board members must be at least two (*Article 4.3.4, Corporate Governance Principles*) (<https://gun.av.tr/corporate-governance-and-directors-duties-in-turkey/>)

RESEARCH RELATED TO THE BOARD OF DIRECTORS OF COMPANIES LISTED IN THE BIST CORPORATE GOVERNANCE INDEX

BIST Corporate Governance Index

BIST Corporate Governance Index (XKURY) is the index in which the companies that apply Corporate Governance Principles are included. BIST Corporate Governance Index aims to measure the price and return performances of companies traded on Borsa İstanbul Markets (except companies in Watchlist Companies Market) with a corporate governance rating of minimum 7 over 10 as a whole and minimum of 6.5 for each main section. The corporate governance rating is determined by the rating institutions incorporated by CMB in its list of rating agencies as a result of their assessment of the company's compliance with the corporate governance principles. Corporate Governance Index started to be calculated on 31.08.2007 with the initial value of 48,082.17. Ratings of companies included in the BIST Corporate Governance Index is available in the company disclosures sent to the Public Disclosure Platform (PDP).

The Research

The research conducted with the companies listed in the BIST Corporate Governance Index. There are 47 companies quoted at Corporate Governance Index by July 2019.

For this research, corporate governance principles compliance reports of companies will be used. Corporate governance principles compliance reports of companies are examined individually. Answers to the following questions are been searched. How many members are composed of a board of directors? Are there women board members? How many of the board members are executive, non-executive and independent members? How many board members are foreign (non-Turkish citizen)?

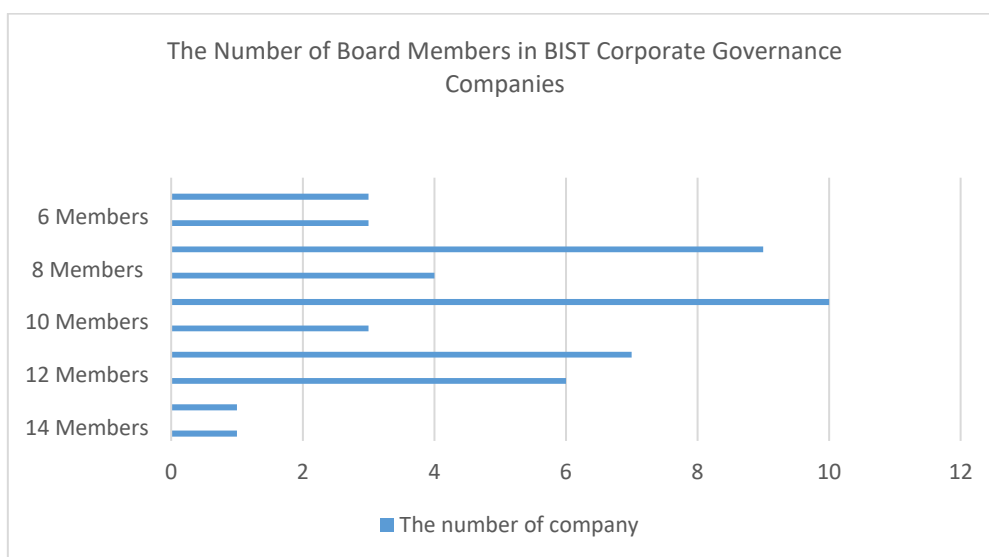
The Results and Conclusion

Results of the research are shown in Appendix A. In the table, in companies, the number of board members, the number of women board members, the number of executive, non-executive and independent board members, the number of foreign board members is shown. According to the results:

According to Corporate Governance Communiqué, the board of directors shall be composed of at least five members for companies subject to the Corporate Governance Principles. When looking at the number of board of directors members in the Companies, with at least 5 members, it is seen that the number has changed. The number of board of directors members ranges from 5 to 14 people. This implementation is in compliance with corporate governance regulations and principles.

TABLE 1
The number of board of director members in the BIST Corporate Governance Companies

The number of board members	The number of company
14 Members	1
13 Members	1
12 Members	6
11 Members	7
10 Members	3
9 Members	10
8 Members	4
7 Members	9
6 Members	3
5 Members	3

FIGURE 1**The number of board of director members in the BIST Corporate Governance Companies**

According to Corporate Governance Communiqué, companies shall determine a target rate for women board members which should not be less than 25%. When looking at the number, The number of women board members ranges from 1 to 5. There are no women board members in 14 companies. There are 88 women board members in total. According to Table 2, 29.7 percent of companies do not have female board members.

TABLE 2**The number of women board of director members in the BIST Corporate Governance Companies**

The number of women board members	The number of company
5 women members	1
4 women members	2
3 women members	3
2 women members	14
1 women member	12
0 women member	14

FIGURE 2
The Number of Women Board Members in BIST Corporate Governance Companies

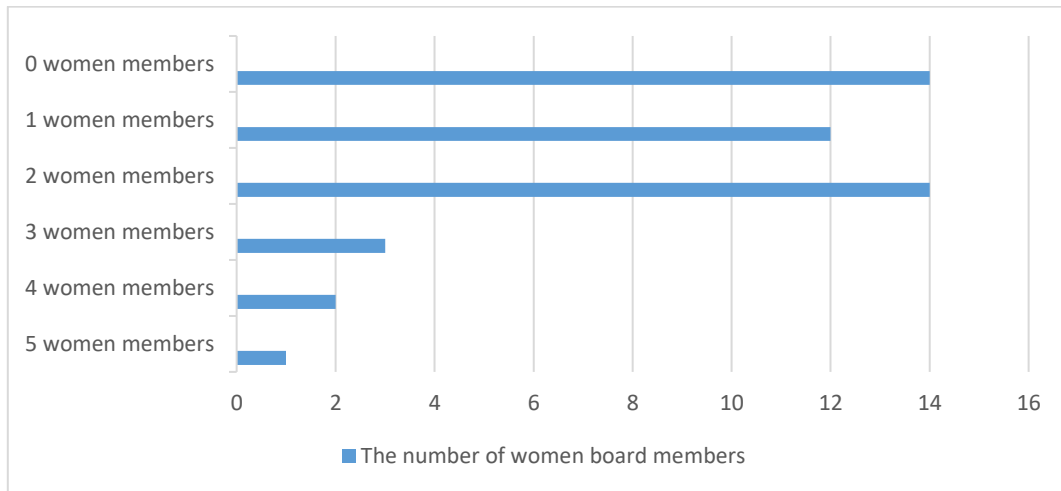


TABLE 3
Ratio Of Female Board Member To Total Board in the BIST Corporate Governance Companies

Ratio Of Women Board Member To Total Board	The Number Of Company
0	14
0-24	21
25-30	7
31-40	2
41-50	3

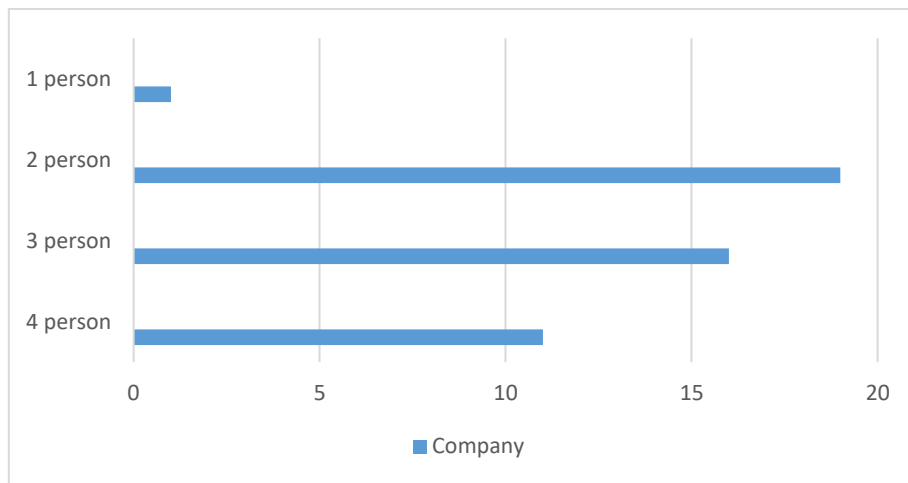
According to Table 3, The percentage of women board members in 21 companies is below 24 percent. If we include companies that are not women board members, The percentage of women board members in 35 companies is below 24 percent. In only 12 companies the percentage of women board members is in compliance with corporate governance regulations and principles. When looking at the total, 25 percent of BIST Corporate Governance Companies is in compliance with corporate governance regulations and principles.

According to Corporate Governance Communiqué, the number of independent board members cannot be less than one-third of the total number of board of directors. In any case, the number of an independent board member shall not be less than two. When looking at the number, The number of independent board members ranges from 2 to 5. There are 131 independent board members in total. In only a company, an independent board member is 1. In most of the companies, the number of independent board members is 2. This implementation is in compliance with corporate governance regulations and principles.

TABLE 4
The number of an independent board of director members
in the BIST Corporate Governance Companies

The number of independent board member	Company
4 person	11
3 person	16
2 person	19
1 person	1

FIGURE 3
The Number of Independent Board Members in BIST Corporate Governance Companies



According to Corporate Governance Communiqué, A majority of the members of the board of directors shall consist of members who do not have an executive duty. If we look at executive members in BIST Corporate Governance Companies, there are in 1 executive member in 21 companies, while all members non-executive in 17 companies. More than 50% of companies (In total 38 companies), a majority of the members of the board of directors shall consist of members who do not have an executive duty. This implementation is in compliance with corporate governance regulations and principles.

TABLE 5
The number of an executive board of director members
in the BIST Corporate Governance Companies

The number of executive members	The number of Company
5 executive members	1
4 executive members	1
3 executive members	1
2 executive members	6
1 executive member	21
0 executive members (All members non executive)	17

The number of foreign board member varies between 1 and 7. There are 55 foreign board members in total in the BIST Corporate Governance Companies. There are no foreign board members in 28 companies. Accordingly, more than 50% of companies do not have foreign board members

TABLE 6
The number of a foreign board of director members
in the BIST Corporate Governance Companies

The number of foreign board member	The number of company
7 foreign member	2
6 foreign member	1
5 foreign member	1
4 foreign member	3
3 foreign member	1
2 foreign member	4
1 foreign member	7
0 foreign member	28

As a result, in terms of the number of board members, the number of executives, non-executive and independent board members, the number of foreign board members, BIST Corporate Governance Companies are in compliance with corporate governance regulations and principles. However, BIST Corporate Governance Companies need to increase the number of women board members.

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APPENDIX A
Information About The Board Of Directors Of Companies Listed In The BIST
(Borsa İstanbul Markets) Corporate Governance Index

Companies listed Corporate Governance Index	How many members are composed of a board of directors? Are there women board members?	How many of the board members are executive, non-executive and independent members?	How many board members are foreign?
Ag Anadolu Grubu Holding A.Ş.	12 members 1 woman, rate %8	4 independent members All members non-executive CEO is executive	There are no foreign members
Akiş Gayrimenkul Yatırım Ortaklığı A.Ş.	9 members 4 women, rate 44.4	1 member is executive 3 independent members	There are no foreign members
Akmerkez Gayrimenkul Yatırım Ortaklığı A.Ş.	10 members 2 women, rate %20	All members non executive 3 independent members	2 foreign members
Aksa Akrilik Kimya Sanayii A.Ş.	9 members 2 women, rate %22	1 member is executive 3 independent members	1 foreign member
Albaraka Türk Katılım Bankası A.Ş.	13 members There are no women board members	1 member is executive 1 independent member	7 foreign members
Anadolu Anonim Türk Sigorta Şirketi	9 members 2 women, rate %22,2	All members non executive 3 independent members	There are no foreign members
Anadolu Efes Biracılık Ve Malt Sanayii A.Ş.	11 members There are no women board members	All members non executive 4 independent members	1 foreign member
Arçelik A.Ş.	12 members 2 women, rate %17	All members non executive 4 independent members	1 foreign member
Aselsan Elektronik Sanayi Ve Ticaret A.Ş.	9 members There are no women board members	1 executive member 3 independent members	There are no foreign members
Aygaz A.Ş.	9 members 1 woman, rate %11	All members non executive 3 independent members	1 foreign member
Coca-Cola İçecek A.Ş.	12 members 1 woman, rate %8	All members non executive 4 independent members	1 foreign member
Creditwest Faktoring A.Ş.	7 members 2 women, rate %28,5	All members non executive 2 independent members	There are no foreign members
Doğan Şirketler Grubu Holding A.Ş.	12 members 5 women, rate %41,6	2 executive members 4 independent members	There are no foreign members
Doğuş Gayrimenkul Yatırım Ortaklığı A.Ş.	5 members There are no women board members	1 executive member 2 independent members	There are no foreign members
Doğuş Otomotiv Servis Ve Ticaret A.Ş.	6 members 3 women board members, rate 50%	All members non executive 2 independent members	There are no foreign members
Enka İnşaat Ve Sanayi A.Ş.	5 members There are no women board members	2 executive members 2 independent members	There are no foreign members

Ereğli Demir Ve Çelik Fabrikaları T.A.Ş.	9 members 1 woman board member, rate %11	1 executive member 3 independent members	There are no foreign members
Garanti Faktoring A.Ş.	8 members There are no women board members	2 members non executive 2 independent members	There are no foreign members
Garanti Yatırım Ortaklığı A.Ş.	5 members 1 women board member, rate %20	1 executive member 2 independent members	There are no foreign members
Global Yatırım Holding A.Ş.	7 members 1 women board members, rate %14,3	All members non executive 2 independent members	1 foreign member
Halk Gayrimenkul Yatırım Ortaklığı A.Ş.	6 members There are no women board members	1 executive member 2 independent members	There are no foreign members
Hürriyet Gazetecilik ve Matbaacılık A.Ş.	7 members 1 woman board members, rate %14	1 executive member 2 independent members	There are no foreign members
İhlas Ev Aletleri İmalat Sanayi Ve Ticaret A.Ş.	7 members 1 woman board members, rate %14	2 executive member 3 independent members	There are no foreign members
İhlas Holding A.Ş.	11 members There are no women board members	5 executive member 4 independent members	There are no foreign members
Logo Yazılım Sanayi Ve Ticaret A.Ş.	6 members There are no women board members	2 executive member 3 independent members	There are no foreign members
Migros Ticaret A.Ş.	12 members There are no women board members	1 executive member 4 independent members	2 foreign members
Otokar Otomotiv Ve Savunma Sanayi A.Ş.	8 members 1 women board members, rate %11	1 executive member 3 independent members	There are no foreign members
Park Elektrik Üretim Madencilik Sanayi Ve Ticaret A.Ş.	9 members There are no women board members	4 executive member 2 independent members	There are no foreign members
Pegasus Hava Taşımacılığı A.Ş.	8 members 1 women board members, rate %12,5	All members non executive 4 independent members	3 foreign members
Pınar Entegre Et Ve Un Sanayii A.Ş.	7 members 2 women board members, rate %29	All members non executive 2 independent members	There are no foreign members
Pınar Su Ve İçecek Sanayi Ve Ticaret A.Ş.	7 members 2 women board members, rate %29	All members non executive 2 independent members	There are no foreign members
Pınar Süt Mamulleri Sanayii A.Ş.	7 members 2 women board members, rate %29	All members non executive 2 independent members	There are no foreign members
Şekerbank T.A.Ş.	12 members There are no women board members	1 executive member 4 independent members	4 foreign members

Tat Gıda Sanayi A.Ş.	11 members 4 women board members, rate %36	1 executive member 2 independent members	2 foreign members
Tav Havalimanları Holding A.Ş.	11 members 3 women board members, rate % 27	1 executive member 4 independent members	6 foreign members
Tofaş Türk Otomobil Fabrikası A.Ş.	10 members 1 women board member, rate %10	1 executive member 2 independent members	4 foreign members
Turcas Petrol A.Ş.	7 members 1 women board member, rate % 14	3 executive member 2 independent members	1 foreign member
Tüpraş-Türkiye Petrol Rafinerileri A.Ş.	11 members 2 women board member, rate %13	All members non executive 4 independent members	There are no foreign members
Türk Prysmian Kablo Ve Sistemleri A.Ş.	8 members 2 women board member, rate % 25	1 executive member 3 independent members	2 foreign members
Türk Telekomünikasyon A.Ş.	9 members There are no women board members	All members non executive 2 independent members	There are no foreign members
Türk Traktör Ve Ziraat Makineleri A.Ş.	10 members There are no women board members	1 executive member 2 independent members	4 foreign members
Türkiye Garanti Bankası A.Ş.	11 members 2 women board member, rate % 18	1 executive member 3 independent members	5 foreign members
Türkiye Halk Bankası A.Ş.	9 members 1 women board member, rate % 11	1 executive member 3 independent members	There are no foreign members
Türkiye Sınai Kalkınma Bankası A.Ş.	11 members 2 women board members, rate % 18	1 executive member 3 independent members	There are no foreign members
Türkiye Şişe Ve Cam Fabrikaları A.Ş.	9 members 3 women board members, rate %33	1 executive member 3 independent members	There are no foreign members
Vestel Elektronik Sanayi Ve Ticaret A.Ş.	7 members 2 women board members, rate %29	All members non executive 3 independent members	There are no foreign members
Yapı Ve Kredi Bankası A.Ş.	14 members 2 women board members, rate % 14	2 executive member 4 independent members	7 foreign members

Analysis of Risk Accepted by Internal Business Units as a Prerequisite for Sustainable Development of Bank Institutions

Liliya Rangelova¹

ABSTRACT: The changing economic conditions in our country call for rethinking a number of issues of economic theory and practice. The particularity of the sustainable development in the conditions of a market economy raises the question of the need to assess the risk of individual business units in the banks. The main objective of the paper is to present a methodology for analysis, evaluation and monitoring of risk through the implementation of a system of indicators. The attained results would enable the bank management to control and examine the risk for each branch or region, but, at the same time, to utilize summarized data that allows an overview of the entire business. This is extremely important given that each bank has a highly developed branch network throughout the country.

Possibility is justified for practical use of data accumulated from the accounting, in order to dissect and assess the risk of commercial bank's internal business units (e.g. agency, bank branch, region). The objective is to determine bank subunits' ratings on the basis of the identified key performance indicators. Monitoring of the actual values achieved by the separate branch is proposed weighed against the bank levels.

The utilization of these indicators intends to create conditions for the implementation of appropriate procedures and controls for ongoing monitoring of the risk accepted by the bank.

Keywords: bank institution, organizational unit, risk analysis, assessment and monitoring, key performance indicators.

JEL: M41, G32, G21.

INTRODUCTION

Each enterprise is exposed to many types of risks arising from the dynamic environment in which it operates. Banking is inherently a risky business and securing bank profits depends on how well the management balances the risks and benefits from the bank's operating activities. Risk is an objective phenomenon and as such is inevitable, but can be minimized through an appropriate system of control processes for identifying, measuring, monitoring, and managing the risks. In order to achieve sustainability of the development of a financial institution, an important role is given to the risk's financial management, its support in terms of accounting and information and analytical and control evaluation of the results. Risk management functions are allocated to different levels and organizational units in the banks, according to their activity and powers. Typically, risk management can be organized at three hierarchical levels: strategic, tactical and operative:

- **Strategic level:** includes risk management functions performed, for example, at the Board of Directors level. These consist of: approval of the risk management strategy,

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endorsing of the definitions of the accepted risks, the risk profile and the risk appetite. Top-level management is ultimately responsible for establishing and implementing the risk management framework.

- **Tactical level:** comprises risk management functions performed at senior management and committees' level, i.e. the approval of risk management policies and processes and the establishment of appropriate internal systems and controls so that the relationship between risk and benefits remains at an acceptable level.
- **Operational level:** includes the operational risk management functions carried out in all units of the Bank. Risk management at this level is conducted through appropriate control mechanisms, which are incorporated into the relevant operating procedures and guidelines set up by senior management.

A number of definitions of the concept of risk have been developed in the academic literature and most of them outline it as a measure of uncertainty and the likelihood of occurring events that impact the achievement of set goals. The accounting interpretation of risk is most often associated with uncertainty in monetary values and estimates of past and present economic events, for which information must be provided to the users. In determining risk, the following factors are usually taken into account: amount of the exposure, type of the threat, duration of the event, risk mitigation measures taken.

The risk exposure reflects the accounting object's predisposition to loss or the so-called forecasted threat. Exposure is usually quantified in monetary terms and the value is equal to the total amount at risk.

The threat includes the risk, its consequences and the likelihood of a negative event. The type of threat expresses the substance of the consequences and can be: omission, delay, fraud, error, natural disaster, etc.

The duration of the event reflects the duration of the negative impact of the risk and directly affects its estimate.

There are a number of types of risk specifically pertinent to banking. This number varies constantly. Different authors use distinctive classifications of banking risks, considering the diversity and complexity of the banking activity.

CREDIT RISK, MARKET RISK AND OPERATIONAL RISK

Taking into account the various risk classifications and the objectives of this study, the following main types of risks accompanying banking are further bore in mind: **credit risk**, **market risk** and **operational risk**.

Credit Risk

Credit risk is a major risk for commercial banks because it originates directly from the lending activity to customers and results in **a loss for the bank coming from a counterparty's potential inability to fulfil its contractual obligations.**

Credit risk includes the following subcategories:

Risk related to lending

The possibility of loss, due to the borrower's inability to fulfil its obligations to the bank, in accordance with the contracted terms.

Counterparty credit risk/ pre-settlement risk

This is the risk that the counterparty on a transaction will default before the final settlement of the cash flows related to OTC derivative instruments or to reverse repo and repo deals that have a positive financial value for the bank at the time of the default.

Counterparty credit risk/ settlement risk

The possibility of a counterparty on a deal to not settle its obligations when they become due, for example, the inability of a counterparty to provide cash, foreign exchange, goods or securities at settlement.

Issuer risk

The possibility of loss due to the default of the issuer of debt instruments or shares or due to the deterioration of its creditworthiness.

Country Risk

Country risk is the likelihood of a loss arising from events occurring in a country that affect the ability of counterparties (companies, individuals, authorities) operating in that country to fulfil their obligations. Possible events include:

- deterioration of financial conditions, political and social tensions in the country;
- changes in legislation that jeopardize exposures to that country or unfavourable legal acts;
- nationalization of assets;
- non-recognition of debt by the government;
- currency restrictions, and
- devaluation of the currency, which upsets the smooth operation of the market.

Risk of concentration

The probability of financial loss resulting from significant exposure to a single counterparty/guarantor or group of counterparties / guarantors with common risk characteristics (type of transaction, activity, geographical area, currency).

Residual risk

The existing or future risk arising from the ineffectiveness of the measurement methods used and the risk mitigation techniques (collateral, guarantee, netting agreements) applied to accept the credit risk.

The Bank seeks to control credit risk through credit criteria that include the ability to pay, provision of collateral and customer evaluation. The process is supplemented by the use of internal rating systems having recognition capabilities and credit risk measurement systems. Banks manage, control and limit the amount and concentration of credit risk by applying a system of credit limits. Credit limits setup the maximum risk tolerance, e.g. to a counterparty, to a group of counterparties, to a rating, to a product, to an industry sector and to a particular country. The Bank's total exposure to borrowers, including credit institutions, is further curtailed by applying sub-limits covering on-balance sheet and off-balance sheet exposures. The residual term of the loan commitments is analysed and monitored systematically since longer-term credit commitments carry in general a higher risk than shorter-term commitments.

The Bank receives collaterals and/or guarantees for the customers' loans, thus reducing the overall credit risk and aiming to repay the receivables in a timely manner. Main eligible categories of collateral and guarantees are:

- pledge on deposits;
- bank guarantees;
- government guarantees;
- a pledge on equity or mixed mutual funds, stocks, bonds or treasury bills;
- a pledge on bank checks;
- real estate mortgages;
- mortgages of vessels;
- receivables from third parties.

According to the standard practice, the lower the credit rating of a borrower, the higher the collateral and guarantees required to keep the repayment rate as high as possible in the event of a borrower's default in respect of the bank.

Market Risk

Market risks mean the ability of a bank to incur losses affecting income or capital due to adverse changes in market interest rates, foreign exchange rates or prices of equity and commodity instruments, as well as changes in the volatility or the correlations.

Interest rate risk is the risk of incurring loss as a result of fluctuations in market interest rates and / or changes in their ratios. "The significance of the change in the interest rate level for the bank's income is determined by the structure of the portfolios of bank assets and liabilities and by the direction of that change" (Johnson and Johnson, 1996, 62).

This type of risk is mainly manifested as:)

- risk of loss arising when the changes in the interest rates of the granted and borrowed funds are not synchronized;
- risk associated with the loss of investment due to the change in the value of securities having fixed-to-maturity profitability, as a result of variations in the interest rate levels;
- opportunity for:
 - an increase in the interest payable on an attracted resource when the interest rate is a market-dependent variable and the amount of interest rises;
 - a contraction in interest income from floating rate investments as market interest rates decline.

To protect against interest rate risk, banks use specific financial instruments such as: interest rate swaps, interest rate futures, interest rate options and more. In lending to their clients, banks most often apply a floating rate, which is in line with the market rates (basic interest rate, EURIBOR, LIBOR plus margin), while for the borrowed resource, they pay interest at a fixed rate. In this way, the interest rate risk on the loans granted is borne by the clients whereas concerning the liability-side transactions it is managed by the bank itself.

In order to assess the interest rate risk of products, it is necessary to generate information about the sensitivity of the position of the banking product to the change in interest rates, analysed within predefined time intervals.

Foreign currency-denominated assets and liabilities and foreign exchange trading are typical for a commercial bank and are a source of **currency risk**. Currency risk is the risk of loss as a result of adverse changes in the exchange rate at which the asset or liability is denominated, relative to the base currency in which the financial results are reported. It occurs when open positions are long or short in currencies other than national one. *An open currency*

position is the Bulgarian lev equivalent of the difference between the assets and liabilities of the bank in a particular foreign currency and in total for all foreign currencies. Until closing of any such position, the banking institution is exposed to the risk of adverse change in the exchange rate.

When there is a long position, i.e. more currency of a particular type is bought than sold, its depreciation against the reporting currency generates a currency loss. This means that upon closing the position the bank will sell the currency at a lower exchange rate than the reporting one.

In a short position, i.e. when the sales of a particular currency exceed the purchases, if that currency becomes more expensive than the reporting one, the bank will also report a currency loss as it will be forced to buy that currency at a higher rate.

Within the commercial bank, management controls currency risk by establishing: a system of limits for the net open positions in each currency, rules for managing foreign currency positions and preparing periodic status reports.

In order to assess the risk of loss as a result of changes in foreign exchange rates for bank products, it is necessary to organize analytical accounting in major currencies (BGN, EUR, USD, CHF and others). On the basis of these data, the effect of the change in each exchange rate on the individual bank product can be analysed.

The active participation of banks in transactions on their own account in the primary and secondary financial markets for debt and equity securities and their hybrids creates **price risk**. Price risk is the risk of loss as a result of changes in the prices of debt and equity instruments. With regard to the debt instruments, this risk can be manifested in two ways:

- overall risk of the position due to the effects of factors affecting the whole market;
- specific risk of the position due to factors relating to the issuers of securities.

In order to limit market risk and ensure a good return on investment, the commercial bank has internal rules that set: limits; responsibilities of the employees involved in the conclusion and approval of such deals; pre-purchase financial information and analysis requirements; periodic reports reflecting changes in their fair value.

Market risk of concentration arises at high exposure to specific market risk factors (certain interest rates, exchange rates, securities prices, etc.)

In monitoring market risks, banks develop scenario analyses and perform stress tests for different types of market risks, the frequency of which depends on the significance of each of the risks to the bank. Simulation techniques can be used based on scenarios taking into

account the impact of changes in market conditions, revaluation times, changes in interest rates, consumer behaviour and others.

Operational Risk

Operational risk is defined as the risk of loss as a result of inadequate or poorly functioning internal processes, people and systems or due to external events.

The main sources of operational risk identified by banks are classified into the following categories:

- **Internal processes:** This category relates to the risk of losses resulting from omission in an existing procedure or missing documents regarding clearly defined and approved procedures related to the bank's activities. The category includes possible losses incurred in the execution and management of procedures. It should be noted that the losses associated with operating processes are not intentional.
- **People:** The category relates to the risk of losses as result of violations of internal policies concerning human resources in the Bank (employees or job applicants). Losses related to the staff can be intentionally caused.
 - Negligence / human error.
 - Inappropriate training / experience.
 - Shortage of human resources / continuity.
 - Absence of employees.
 - Failure to follow processes / guidelines / policies.
 - Illegal / unauthorized activity.
- **Systems:** This category relates to the risk of loss due to unavailability and/ or malfunctioning of the systems and technological infrastructure as a whole.
- **External events:** The category relates to the risk of losses resulting from natural forces or as a direct result of third party actions.

Legal risk and regulatory control are considered as subcategory of the operational risk and are defined as the risk of legal and regulatory penalties, financial losses and/or consequences for the credit institution's reputation due to deviation or non-compliance with the legal and regulatory framework, contractual obligations and rules of conduct related to the performed activities. This subcategory also includes the risk of appropriateness arising from legal procedures / regulations or from damage to the reputation of the bank when selling complex investment products to clients who do not have the necessary knowledge, without

providing appropriate clarification or without taking into account their risk appetite, prescribed practices or ethical standards.

Operational risk exhibits in various forms, such as:

- risk of misappropriation of assets - a typical example is fraud, abuse, theft, robbery, etc.;
- risk of errors - for example, errors in handling the operations performed;
- risk of inadequate procedures - such as inadequate internal controls and management procedures; unrelated rules for booking transactions; lack of rules governing individual banking activities; lack of information required by management; lack of link between the bank's management and the staff at lower levels;
- risk of disruption of computer systems - such as data loss due to IT system failure, destruction or modification of data due to unauthorized access, damage from a virus attack, etc.

The operational risk management framework covers all business and support units, aiming at both preventing and reducing the operational risk.

The operational risk control system includes developed rules, procedures and methodologies that are applied in managing operational risk, as well as existing systems that limit errors or abuses. Banks must have a documented internal control system that includes a set of internal control mechanisms and processes covering all activities, and aimed at efficient and reliable operations. The internal control system also incorporates a comprehensive Business Continuity Plan intended at eliminating any adverse impact that may occur in crisis situations.

KEY RISK INDICATORS (KRI)

The bank manages, controls and limits the amount and concentration of risk by applying a system of financial indicators for risk management in assessing the performance of the various centres of responsibility in its organizational hierarchy. Typical indicators for assessing the level of risk in the banks are: the ratio of deposits to total assets, the net interest margin, the return on assets and non-interest income. Establishing a system of key risk indicators (KRI) would allow determining a rating that measures risk in each branch of the bank.

Different measures are used for account number and volume where appropriate. Mathematical statistical models as well as professional judgment are also utilized in determining of weighting factors for KRI, since some of them are primary and others are

secondary. The designed KRI computation frequency is monthly, preferably in the beginning of each new month, upon the data availability. Benchmark criteria have also to be computed for each risk indicator based on data for all branches and regions for a recent historical period up to 2 years. Finally, a risk rating is determined for every branch on the grounds of risk indicators.

KRI scale (Δ) is determined at every rating computation on the basis of the KRI values already calculated at branch level, as follows:

$$L = \min (KRI_i)$$

$$H = \max (KRI_i)$$

$$\Delta_{KRI_i} = [L; H]$$

In order to avoid the impact of large deviations, a preliminary elimination of extreme values is performed. Type of the KRI values distribution is determined and relevant statistic measures are applied to identify these extreme values. The computed KRIs are aggregated in order to determine **a rating that measures the level of risk in each branch**. The applicable rule is that the higher risk is evaluated by a higher rating. Based on the list of KRIs, credit, operational and compliance macro-risks are assessed at branch level and finally represented/shown by an overall rating of the branch. In order to obtain the final risk rating of the branch the computed value of the individual KRI is transformed in a score through the following function:

$$S_{KRI_i} = F_i(KRI_i),$$

where KRI_i – Key Risk Indicator number i

S_{KRI_i} – score of KRI_i determined as a result of transformation $F_i(KRI_i)$; this is a branch score.

Transformation function and score calculation

- Benchmarks:

$$B_{KRI_i} = \text{average} (KRI_i)$$

and represents average KRI value at bank level.

- Branch KRI value: V_{KRI_i}

- Basic transformation rule:

$$V_{KRI_i} > B_{KRI_i}, \text{ then } S_{KRI_i} > 0$$

$$V_{KRI_i} \leq B_{KRI_i}, \text{ then } S_{KRI_i} \leq 0$$

- Benchmark distance: $D_{KRI_i} = V_{KRI_i} - B_{KRI_i}$ and $DB_i = D_{KRI_i} / \Delta_{KRI_i}$

- Score calculation: $S_{KRI_i} = \alpha * DB_i$, where α reflects maximum/ minimum score:

$$-\alpha \leq S_{KRIi} \leq \alpha$$

• Extreme values' rule: Maximum/minimum branch scores are assigned to branches having extreme values of the respective KRI. The scale of the scores definition: $\alpha = [-10;10]$.

Finally, a risk rating is determined for every branch on the grounds of the risk indicators described in Appendix A.

CONCLUSION

In conclusion, we believe that by monitoring the levels, trends and factors that affect the values of the above indicators, based on the actual achievements of individual branch compared with the average for the bank. We express the hope that the findings, conclusions and proposals given in this paper will provoke thinking of specialists and will be useful for management teams of the banks.

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APPENDIX A Risk Indicators

KRI Name	Measure	Total	Region Overall
Branch Loan Portfolio Total Debt (T)	AMOUNT	10,00	-5,58
Branch New Loan Portfolio Total (T) [loans granted within the last 12M] / Branch Loan	AMOUNT	-9,52	-4,50
Classified Loans Total (T) [loans classified in higher risk groups] / Branch Loan Portfolio	AMOUNT	-0,82	4,53
Classified Loans Total (T) [loans classified in higher risk groups] / Branch Loan Portfolio	NUMBER	-4,13	5,18
Loans Restructured/Renegotiated (T) / Branch Loan Portfolio Total Debt (T)	AMOUNT	3,02	4,21
Loans Restructured/Renegotiated (T) / Branch Loan Portfolio Total Debt (T)	NUMBER	3,45	2,44
Overdue Debt on Loans in Branch Loan Portfolio (T) / Branch Loan Portfolio Total Debt (T)	AMOUNT	-4,76	2,78
Total Debt on Overdue Loans in Branch Loan Portfolio (T) / Branch Loan Portfolio Total Debt (T)	AMOUNT	-1,29	3,09
Credit Cards with Pre-approved Limits (T) / Branch Credit Cards Portfolio Total (T)	NUMBER	0,45	1,53
Loans in Branch Portfolio with Missing Collaterals (T)	AMOUNT	9,23	-4,00
Loans in Branch Portfolio with Missing Collaterals (T)	NUMBER	9,78	-4,00
Collaterals with Expired Validity (T)	NUMBER	-6,61	-8,20
Branch Loan Portfolio Total Debt (T) / Branch Loan Portfolio Total Debt (T-12)	AMOUNT	-2,53	-4,22
Branch New Loan Portfolio Total (T,T-12) / Branch Loan Portfolio Total Debt (T-12)	AMOUNT	-3,62	-8,42
Classified Loans Total (T,T-12) / Branch Loan Portfolio Total Debt (T-12)	AMOUNT	3,22	4,57
Classified Loans Total (T,T-12) / Branch Loan Portfolio Total Debt (T-12)	NUMBER	6,30	9,33
Loans Restructured/Renegotiated (T,T-12) / Branch Loan Portfolio Total Debt (T-12)	AMOUNT	-0,51	1,02
Loans Restructured/Renegotiated (T,T-12) / Branch Loan Portfolio Total Debt (T-12)	NUMBER	-2,94	-6,00
Overdue Debt on Loans in Branch Loan Portfolio / Branch Loan Portfolio Total Debt - Monthly Average Change (T,T-12)	AMOUNT	1,64	1,85
Total Debt on Overdue Loans in Branch Loan Portfolio / Branch Loan Portfolio Total Debt - Monthly Average Change (T,T-12)	AMOUNT	6,63	6,66
Credit Cards with Pre-approved Limits in the Branch to Newly Registered Customers (T,T-1)(T-1,T-3)(T-3,T-12) [newly registered customer is everyone with a loan contract date within 1 year of the client registration]	NUMBER	-0,08	-1,01
Large Variations from Budget Targets (YTD)	AMOUNT	-1,81	3,10
Large Variations from Budget Targets (YTD)	NUMBER	7,84	5,99
Early Deteriorated Loans (T,T-12) [loans that went in overdue for the first time within 180 days of granting, have been in overdue >= 3 times and are in overdue as of EOP]	AMOUNT	8,64	-4,16
Early Deteriorated Loans (T,T-12) [loans that went in overdue for the first time within 180 days of granting, have been in overdue >= 3 times and are in overdue as of EOP]	NUMBER	-7,67	-6,60
Branch Level Concentration of Cash Deficits in Categories Cash Desk and ATM (T,T-12)	AMOUNT	4,22	-6,17
Branch Level Concentration of Cash Deficits in Categories Cash Desk and ATM (T,T-12)	NUMBER	-3,65	-1,83
Branch Level Unused Cash / Average of Excessive Cash (T,T-12)	AMOUNT	6,91	7,72
Concentration of Technical Accounts at Branch Level (T) [detects branches with the highest numbers of technical accounts belonging to defined account classes]	NUMBER	10,00	-7,06
Customer Accounts with Adjacent Open and Close Dates (T,T-12) [detects customer accounts with a period of existence (close date - open date) within one month]	NUMBER	10,00	2,33
Customers of the Branch Having Active Accounts without Specimen/ ID Document (T) [ratio of funds on customer accounts without specimen/ ID document in core banking system and total funds on customer accounts at branch level]	AMOUNT	10,00	-3,65
Customers of the Branch Having Active Accounts without Specimen/ ID Document (T) [ratio of funds on customer accounts without specimen/ ID document in core banking system and total funds on customer accounts at branch level]	NUMBER	10,00	-8,40
Deposits/ Withdrawals in Total Amount >= BGN 5 000 on Raising Accounts in One and the Same Day (T,T-12)	NUMBER	-10,00	10,00
Loan Repayment Transactions on Technical Accounts (T,T-12) [in order to avoid distrains]	AMOUNT	10,00	-6,59
Loan Repayment Transactions on Technical Accounts (T,T-12) [in order to avoid distrains]	NUMBER	10,00	-10,00
Overdraft Limits on Technical Accounts of the Branch Exceeding Defined Standard Limits (T,T-12) [detects technical accounts belonging to specific account classes, for which the limits valid as of the period end exceed the limits defined in respective internal regulation]	AMOUNT	0,00	0,00
POS Technical Accounts Indicating Lack of Reconciliation during a Certain Period (T,T-12) [detects differences between credit and debit turnovers on POS technical accounts, based on value dates during a certain period]	AMOUNT	-10,00	-10,00
Technical Accounts with Adjacent Open and Close Dates (T,T-12) [detects technical accounts with a period of existence (close date - open date) within one month]	NUMBER	10,00	10,00
Unusual Transactions Executed on Technical Accounts (T,T-12) [detects anomalous transactions executed on technical accounts, i.e. the type of the transaction does not belong to a table with the allowed types of transactions]	AMOUNT	6,20	10,00
Unusual Transactions Executed on Technical Accounts (T,T-12) [detects anomalous transactions executed on technical accounts, i.e. the type of the transaction does not belong to a table with the allowed types of transactions]	NUMBER	-5,43	2,96
Overall Branch Rating		0,68	-0,11

Reducing Reputational Risk in Commercial Banks by Increasing Customer Satisfaction

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Maria Miteva²

ABSTRACT: The dynamics with which commercial banks are developing requires the integration of the risk management system into every business process and activity at the organizational level. Building and maintaining a positive reputation is one of the key activities that need to be prioritized. Among the major stakeholders, influencing bank reputation, are clients. The article reveals the impact of their satisfaction on the reputation level. Different mechanisms can be found here, which reflect the positive attitude of clients. There is a way to minimize reputational risk. An empirical survey has been conducted of about 30% of the commercial banks operating in Bulgaria, which shows the importance of the rupture risk on their activities.

Keywords: commercial banks, risk reputation, customer satisfaction.

JEL: D91, E42, G14.

INTRODUCTION

The international banking industry faces rapidly changing financial markets, new technologies, uncertainty, fierce competition, and growing customer demands and rigor, representing an unprecedented set of challenges. Banking is largely customer-oriented, that is why the customer is the focus and its service is a major differentiating factor.

Customers are the driving force behind the development of the banking sector. Most of the ideas for innovation are dictated precisely by customer feedback, needs and desires. Customers are the driving force behind which banking products are being realized and banks are making profits, and through good partnership relationships long-term stability is also achieved. Customers are among the main stakeholders to build the positive reputation of any business.

At the same time, high levels of customer satisfaction help build a positive reputation for banks, increase the credibility of the organization in customer perceptions, positively influence profits and increase the market share of banks. To reach high levels of customer satisfaction, commercial banks need to build and maintain long-lasting relationships with them by meeting their different needs and requirements, which in turn motivates customers to continue doing business with the bank. It is said that customers and their satisfaction are a major priority for global banks because of their awareness of their business development

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(Mohsan, & Nawaz, 2011). For this reason, customer satisfaction cannot be achieved solely by the product or service provided, but should be perceived as the primary objective of a bank as a way of influencing the degree of customer retention and a way to realize a higher profit (Cronin, Brady & Hult, 2000).

Satisfaction can be represented as, overall customer attitudes, behaviours to the service provider or emotional response to the difference between what they expect and what they receive in terms of fulfilling some of their desire, need or purpose (Hansemark & Albinson, 2004). Satisfaction of customers has a strong influence on building a positive reputation for the organization.

Goodwill, in turn, is among the main assets to keep operational risk at an acceptable level. Practice shows that the risk manifested by the multiplicity of potential reputation risk events is a serious reflection in the implementation of core business processes in commercial banks. This is among the main reasons that this article should indicate one of the possible exits to minimize the frequency and severity of consequences resulting from the realization of reputational risks.

REPUTATIONAL RISK IN COMMERCIAL BANKS

In the scientific literature, there are many different definitions of corporate reputation, among the most common are: "corporate reputation is a group rating of a company's attractiveness for a particular group of stakeholders among a number of similar companies with which they are in a competitive relationship "(Fombrum, 2012); according to Honey (2009), the reputation consists in the faith and trust that is built up in a certain amount of people in the organization and the ability to maintain that trust in a future period. According to another reputation study (Eisenegger, 2009, p. 11) it is built up of three main components: functional, social and expressive. According to the functional component, each organization must constantly demonstrate its competence and its success. The social component is aimed at maintaining the values of the organization in social norms and values. The expressive component implies building an emotionally attractive profile for consumers, creating competitive advantages over other companies. According to this definition, the construction of a positive reputation necessitates a satisfactory performance of the three components in a good degree and interdependence.

When it comes to bank reputation, it should be borne in mind that it is associated with many risks. Reputational risk is affected by the Basel Committee on Banking Supervision under the Basel II framework. Here, a definition of reputational risk related to commercial

banks can also be drawn. (Basel Committee, 2009, pp.19-20). Reputational risk arises from the negative perception of all customers, counterparties, investors, debt holders, market analysts, other parties or regulators that may adversely affect the ability of a bank to establish new business relationships and continuous access to sources of funding. Reputational risk is multidimensional and reflects the perception of a bank by other market participants. Reputational risk depends on the adequacy of internal processes in the organization and on the effectiveness of risk management, as well as on how the management reacts to external influences on a banking institution.

Reputation assumes special importance in banking because of asymmetric information, the qualitative-asset-transformation made by banks, and the supply of payment and risk management services create a systemic risk (Allen & Santomero, 2001).

It is interesting to study the Determinants of Reputational Risk in the Banking Sector, Fiordelisi and Soana (2011), which emphasizes the factors that affect reputation. According to him, impairment of reputation is influenced by bank risks, profits, amounts, invested capital, intangible assets and a business sphere that suffers operating losses. The likelihood of damage to goodwill increases, with increases in profits and the size of banks, respectively at a higher level of capital invested and intangible assets reduce the likelihood of damage to goodwill. Other determinants of reputational damage may be the risk appetite of a bank, its yield, the amount of intangible assets, capitalization, the business direction of the bank, and others.

From all the above, it can be concluded that the risk of reputation loss is at the forefront of commercial bank management. Despite the availability of scientific publications on this subject, there is still insufficient research to provide solutions to overcome the damage from this multi-risk. After defining the main determinants leading to the realization of risk situations on bank reputation, it is now time to address the potential damage to which reputational risks may lead.

DAMAGE FROM REPUTATIONAL RISK REPAYMENT IN COMMERCIAL BANKS

When managing reputational risk, it must be taken into account that it is multi-faceted and has a chain effect. One of the key requirements of bank customers is the willingness of commercial banks they choose to be secure and stable. In the event of a breach of reputation, there is a serious outflow of customers, including the loss of key customers, which violates a bank's balance sheet and it suffers serious financial losses. Depending on the frequency of occurrence of negative risk situations and the moment when the bank detects their presence,

the amount of losses from breaching the goodwill is also determined. There are no exceptions in the case of commercial banks bankruptcy due to impaired reputation. It is not accidental that the practice is shared by the view that a bank fails most easily by violating its positive reputation.

According to a study (Fiordelisi, Soana, Schwiren, 2014) relating to a large sample of banking institutions from Europe and the USA for the period 1994-2008, operational losses from reputational risks are significant. Among the main reasons for losses are negative messages damaging the positive reputation. The survey highlights that "fraud" is the type of event that generates the strongest damage to reputation. "Trading and sales" and "payment and settlement" are the two business lines that determine significant losses of goodwill. Another study found was that losses in Europe were higher than in the USA.

Among the many examples of serious reputational damage in the banking sphere, the following examples can be highlighted:

- The Lehman Brothers investment bank in America went bankrupt in September 2008 as a result of the severe credit crunch of 2007, which has grown into a global economic recession. By the time of its bankruptcy, Lehman Brothers had assets of \$ 691 billion and debts of about \$ 613 billion. Bankruptcy is causing a serious reputation in the stock markets and financial markets across the USA. (Investitor.bg 10.11.2009)

- Even a serious breach of reputation reaches even Bank of America. It gets a critical status in 2012 when the US population ranked it at the lowest level as a result of a credit card incident. (Profi.tb.g.14.02.2012) Thus, it fell into the world rankings for the companies with the worst reputation and suffered huge financial losses, including outflow of customers.

- Data from the Greek Central Bank (Bank of Greece) show that for seven months - from October 2014 to April 2015, the Greeks have withdrawn deposits of 30 billion euros, given the rumors of bankruptcy of the Greek banking system. This reflects both their reputation in the country and their subsidiaries in other countries.

- The cases in Bulgaria as a result of negative reputational damages are also not uncommon. During the bank crisis of 2014, when one of the major commercial banks in the country went bankrupt, the reputation of the banking system was shaken. Only a few months after this bankruptcy, a negative message on the online space brought another bank to almost bankruptcy. What is characteristic of this case is that within one day this bank lost a large number of customers and generated millions of losses. Thanks to the rapid responses of the bank's management and the support of the Bank, this bank managed to recover its losses and its positive reputation.

These examples are indicative of the strength of reputation and the need for timely and rational management. Due to the wide range of safeguards that commercial banks need to have, the limitation here is to consider only the possibility of minimizing risk by affecting one group of stakeholders, namely customers.

MECHANISMS TO IMPROVE THE REPUTATION OF BANKS BY ENHANCING CUSTOMER SATISFACTION

Customer satisfaction and long-term loyalty can be presented as a key factor positively impacting commercial banks' reputational risk levels. In order to effectively manage reputational risk, banks embedded in their organizational strategies, effective strategies, and mechanisms to increase the satisfaction and loyalty of their clients.

Building a positive reputation takes years, and it takes only a moment to lose it. For this reason, banks should establish reputational management and monitoring mechanisms and apply models to reduce reputational risk that focus on enhancing customer satisfaction, loyalty and engagement with the organization. Reputation and reputational risk management requires soft skills such as caution, anticipating future needs and trends, understanding stakeholder requirements, listening to their needs, planning and taking action in a positive way"(Rayner, 2004).

More and more organizations, including financial ones, create strategies for analyzing, evaluating and increasing customer satisfaction and loyalty. Customers are an important factor in creating new relationships with other users because of their willingness to recommend the organization. In addition, banks rely on customers' loyalty as a business opportunity to ensure their market share, increase profits, and minimize various negative risks.

There are a number of strategies and mechanisms to improve the satisfaction and loyalty of the users, where the main focus is the client. These strategies and mechanisms are based on the creation of a high quality product and service offer that can effectively meet the needs and expectations of customers. Among the main mechanisms for improving customer satisfaction and impact on the reputation of commercial banks are: product transformation and service development, increasing customer service quality, enhancing the knowledge and skills of employees, ready to solve problems and meet the needs customers and providing competitive prices for the products and services offered.

In this part of the paper, we identify various mechanisms to reduce the reputational risk by maintaining customer satisfaction. They can be summarized as follows:

1. Product transformation and service development. Introducing and maintaining technological innovation in commercial banks is paramount. Technological innovation is a key driver that is increasingly affecting the banking sector. Over the last decade there has been a transformation of products and services offered by banks. The traditional form of banking and transacting is increasingly giving way to innovative ones. Banks focus their strategies on the development of innovative products and services such as: internet banking, mobile banking, mobile portfolios, customer service chat, electronic signature, self-service areas. These innovative products have as their primary objective to improve customer service and satisfaction with the organization and use of its products and services.

2. Increase and maintain high quality of service. Continuous striving to increase the quality of serving customers is related to the level of service quality. Quality of service has a crucial role to play in customer satisfaction and is a key determinant. It can also be presented as the commitment, attention and positive attitude towards the client, which receives in interactions with a bank. Banks evaluating the importance of a high level of customer service have developed comprehensive strategies to improve service quality. They have set up specialized departments to improve service quality.

3. Increasing the knowledge and skills of bank employees. Raising the qualifications of bank employees through systematic training and professional development strategies is an important mechanism for improving customer satisfaction. The need to introduce a process of continuous training for the employed is becoming more and more intense as a result of the rapid development of technology and science.

4. Solving customer problems. Meeting customer needs is one of the important factors affecting customer satisfaction. The readiness of banks to effectively assist their customers in case of a problem or to satisfy their need is an important mechanism for a positive impact on customer satisfaction and loyalty. From this point of view, customers should not remain convinced that their problems are unresolved or resolved in a way that puts the interests of a bank first.

STUDY METHODOLOGY

In order to prove the correlation between maintaining a positive reputation and high customer satisfaction, empirical evidence is sought in this paper through research in commercial banks operating on the territory of the country.

The methodology of the study is based on the literary analysis and is organized in the form of a survey. The survey is organized through a structured online questionnaire that

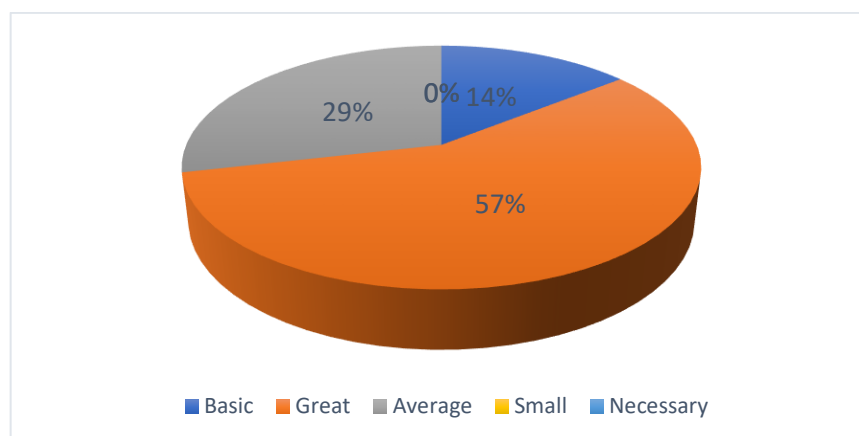
provides anonymity of responses, privacy and ethics, and relatively high security in the results.

Respondents in the survey are representatives of 28 % of commercial banks in Bulgaria who have responded to various issues affecting reputation in their banks, its management and the applicability of customer satisfaction enhancement mechanisms. The questions asked are closed-ended, allowing respondents to choose the most appropriate answers. The survey period is the second half of 2019.

ANALYSIS OF THE RESULTS OBTAINED

In most (over 70%) respondents are large banks operating with a branch network of between 150 and 200 branches. They are all aware of the threats of a collapse of positive reputation. In terms of its magnitude (Figure 1), all banks value it, with about 60% of them being of great importance.

FIGURE 1
The magnitude of the reputational risk of the overall risk profile



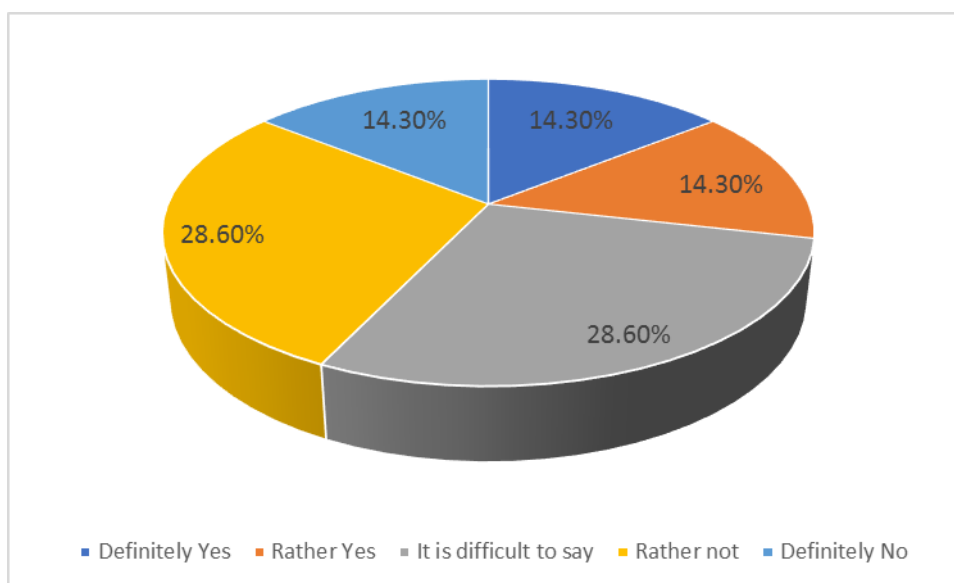
All banks surveyed manage this risk group, and the mechanisms they use to influence it are different. Around 15% are more aware of it when a risky event is realized, with an indirect impact on the reputation of the bank. In this way, they aim at minimizing the chain effect of risk. A further 40% is deepening its mechanisms of retention of goodwill in obtaining information about reputational threats. For others, over 40% of respondents, reputational risk is managed through constant risk analyses.

The empirical survey shows that none of the commercial banks surveyed have specialized software scans the internet for malicious reputational damage publications. As a major mechanism for creating and maintaining a positive reputation, over 90% of respondents

rely on creating a positive resource. It mainly includes PR articles, corporate profiles, initiative activities, and the top internet search engines.

Due to the fact that reputation is dependent on all the banks' stakeholders, respondents were given the opportunity to assess which ones are the greatest threats to their reputation. The answers are categorical, with the clients (mostly dissatisfied) and the counterparties of a bank ranked first. Determining the degree of threat on a scale of 1 to 5 stakeholders received the following assessments: customers - 5; competitors - 2; counterparties - 3; regulators - 1.

FIGURE 2
Existence of damage suffered as a result of reputational risks

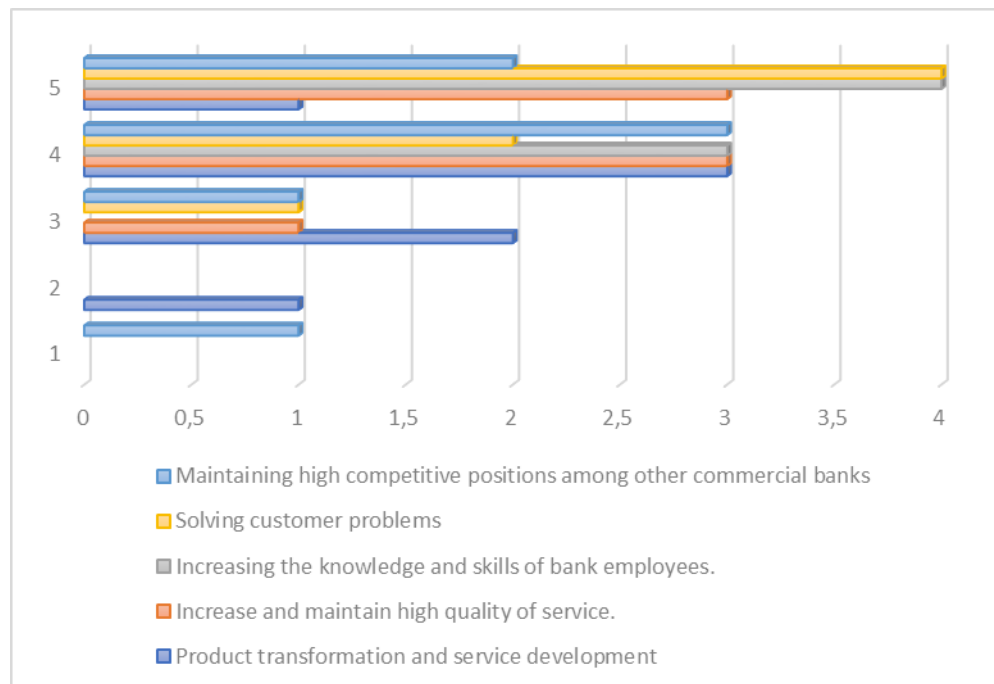


More than 40% of the commercial banks surveyed say they have suffered damage as a result of the risky events that led to the loss of their positive reputation.

This paper explores the correlation between the positive reputation and the satisfaction of the bank customers. It is also affected by the empirical study. About 80% of respondents believe that increasing customer satisfaction will increase the bank's positive reputation and, accordingly, reduce reputational risk. All proposed mechanisms for increasing customer satisfaction responds positively, finding them appropriate and applicable in their organizations. (Fig.3).

The practice of the surveyed respondents shows that their clients attach the highest importance to the quality of service and the willingness of the employees to assist them in solving specific problems. This is explained by the direct contact between the customers and these two mechanisms. At the same time, other mechanisms, although not directly affecting the satisfaction of bank customers, their retention and attracting new ones.

FIGURE 3
Mechanism giving a positive result on customer satisfaction



CONCLUSION

This paper outlined the place of reputational risk, which, according to the survey, is one of the main risks threatening commercial banks. Its importance proves the need that reputational risk should be managed and maintained at an acceptable level. One way to achieve this is by maintaining customer satisfaction at high levels. Various mechanisms have been shown and evaluated to enhance the satisfaction of bank customers. In this way, the survey shows both its scientific and practical application, which can benefit the beneficiaries - commercial banks.

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Literature Review on Closed-loop Supply Chains and Reverse Logistics in the Context of Sustainable Development Goals

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ABSTRACT: Sustainability has recently become an important issue in many different areas and one of them is supply chain management. The concerns such as limited natural resources and growing globalization processes impact many logistics activities. This leads to the development of sustainable supply chain through practices that can “close the loop” or to add more activities in the supply chain that weren’t taken into account as important in the past and that concerns the energy consumption in production processes, reverse logistics, recycling etc. This study attempt to make a literature review in these issues in the world and to outline the future research directions in this field in Eastern Europe. The final conclusion from the literature review is that the environmental issues in the world are erasing and are recognized as such from many countries and society and the reverse logistics and closed-loop supply chain can contribute to decrease the impact of harmful economic activities.

Keywords: closed-loop supply chains, sustainable supply chain, sustainable development goals.

JEL: Q01, Q51.

INTRODUCTION

Sustainable development as a term is coming in the late nineties in the Burthland report. In June 1992, at the Earth Summit in Rio de Janeiro, Brazil, more than 178 countries adopted Agenda 21, a comprehensive plan of action to build a global partnership for sustainable development to improve human lives and protect the environment. Passing through numerous world summits United Nations goes to the 17 SDGs adopted in September 2015 under the name: Transforming our world: the 2030 Agenda for Sustainable Development. These goals give not only a guidelines to follow but they also change the mindset of many people and the way of production, consumption and transportation of goods. This impacts the whole supply chain and especially goal 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation) and goal 12 (Ensure sustainable consumption and production patterns) have a considerable importance for the logistics system and the supply chain management.

Since the sustainability has become widely accepted and recognized as an important issue, it is possible to find many different notions and definitions in the literature. The field of logistics and supply chain management is no exception and in the next section different notions would be considered and compared in order to present different concepts that correspond to sustainable development goals (SDGs) 2030 in the field of supply chain

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management, because the sustainability has a big impact on the creation, production and distribution phase of each product.

One of the most spread definitions of Supply Chain Management is given from the Council of Supply Chain Management Professionals: Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies (Supply Chain Management Terms and Glossary, 2013). Focus on sustainable development in the last two decades led to growing impact on the logistics and supply chains. Due to this fact it is possible to meet different interpretations such as Green or Sustainable Supply Chain Management, Closed Loop Supply Chain Management, Reverse Logistics, Green or Sustainable Design, Green or Sustainable Manufacturing, Waste Management and Product Life Cycle Assessment. This article is not pretending to present a full list of all possible definitions in the literature concerning the sustainability of the supply chains and this is one of its limitations. However one of the goals is to present the impact of sustainable development on the supply chain and how the business and economy are transforming in order to close the loop and be environmentally efficient without threatening the economic growth and future generations. As stated, “The terms reverse logistics, green logistics, reverse supply chain, and closed-loop supply chains are often used interchangeably to deal with the reverse flows and products” (Skjott-Larsen & Scharj, 2007, p. 292). Therefore the second goal is to define the wider concepts as a result of the literature review.

For this aim some definitions will be presented in order to show the growing impact of sustainability on the supply chain. Until in the classical supply chain the main focus is on the forward flows of materials and goods, in supporting environmental sustainability, managing product returns has become a very important and challenging issue. Responding to this trend, researchers in many parts of the world have conducted numerous studies in reverse logistics and reverse supply chain that were considered separately from the forward channel of supply chains. Meanwhile, there are opportunities to create added values from product returns and to improve efficiency when both channels are considered in an integrated way, as a closed loop supply chain (San, Pujawan, & Suparno, 2012).

RESEARCH METHODOLOGY

The method of content analysis is applied in this paper. A literature review seems to be valid approach for reviewing thoroughly and structuring a research area (Easterby-Smith, Thorpe, & Lowe, 2002). The search process started by selecting the publication databases including journals, books, technical reports, conference publication, white papers and articles obtained from electronic sources including Google Scholar, Science Direct, Emerald Insight, and EBSCO databases. The search process was based on the relevant keywords such as “reverse logistics network”, “reverse logistics”, “recycling”, “remanufacturing”, “product returns”, “product recovery”, “end-of-life products” and “closed-loop supply chains”. The purpose of this report is to identify the relationship between reverse logistics and closed-loop supply chain. This was done by reviewing, summarizing and comparing different definitions of both concepts. As a result the current stage of development of the concepts and the related economic and international context is presented. Base on the open question that remain after the literature review possible opportunities for further researches are presented.

OVERVIEW OF CLOSED LOOP SUPPLY CHAIN CONCEPT IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

Reverse logistics and closed loop supply chain management have been explained by many authors in different perspectives during the years. They are often considered as a process with different stages. As they have much in common in the following points the two definitions will be explained and the key processes will be identified in order to distinguish them.

Reverse Logistics

Authors have defined reverse logistics in different ways but with several common traits. One part of the definitions represent clearly the way backwards from the traditional supply chain:

- one of the most widely accepted definition is given by Rogers & Tibben-Lembke :“the process of planning, implementing, and controlling the efficient, cost effective flow of raw materials, in process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing value or proper disposal”(Rogers & Tibben-Lembke, 1999).
- Earlier definition characterizes reverse logistics as “...a broad term referring to the logistics management and disposing of hazardous or non-hazardous waste from packaging and products. It includes reverse distribution ... which causes goods and

information to flow in the opposite direction of normal logistics activities” (Kopicki, R. et al., 1993, p. 323).

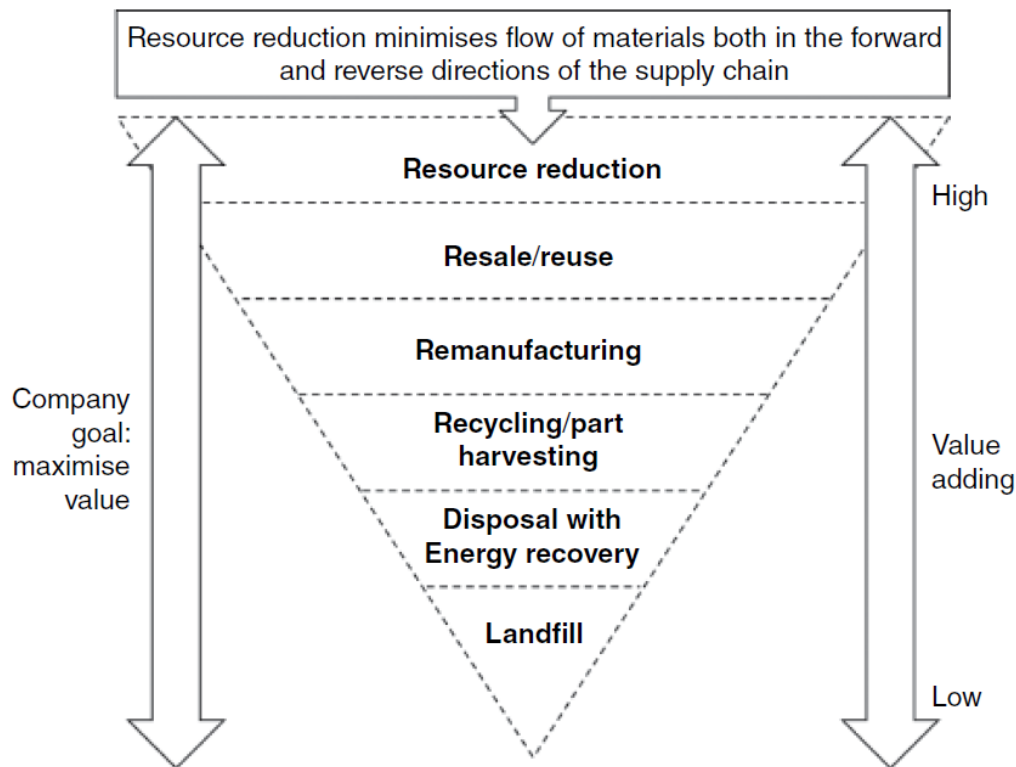
- The Reverse logistics Association funded in 2002 also stress on the process after the point of sale and they refer to “reverse logistics” as ... all activity associated with a product/service after the point of sale, the ultimate goal to optimize or make more efficient aftermarket activity, thus saving money and environmental resources (Reverse Logistics Association, n.d.).

On the other hand other part of the definitions underline the main processes executed in the reverse logistics. They refer directly to the concrete actions of repair, reuse, remanufacturing and recycling. Such definitions are:

- the APICS Dictionary reverse logistics definition: “a complete supply chain dedicated to the reverse flow of products and materials for the purpose of returns, repair, remanufacture, and/or recycling (APICS Dictionary 13th ed, 2010).
- And Carter and Ellram position: “The process whereby companies can become more environmentally efficient through recycling, reusing, and reducing the amount of materials used” (Carter & Ellram, 1998)

One very popular model concern the possibilities for product returns that shows the so-called “returns” after processes of collection, inspection and sorting. This model present recovery options and value creation and is shown in Fig. 1. The figure is adapted by Belvedere and Grando from Carter and Ellram, 1998; Stock, 1992 and Kapicki et al. 1993 (Belvedere & Grando, 2017, p. 183) and combine the possible recovery options that are often presented in the literature. These possibilities are often considered as reverse logistics activities because nonmatter the chosen or needed action the flows are in reverse direction of the forward flows even if they are in a good condition and usable.

FIGURE 1
Recovery options and value creation



Source: Belvedere and Grando, *Sustainable Operations and Supply Chain Management*, 2017.

Third important issue is the value recovery, mentioned also by Rogers & Tibben-Lembke. Other authors also emphasize on this part of the reverse logistics as: The effective and efficient management of the series of activities required to retrieve a product from a customer and either dispose it or recover value (Prahinski & Kocabasoglu, 2006, p. 519) On the one hand by value recovery one of the biggest concerns of 21th century for the non-renewable resources can be partly solved. On the other side with the growing importance of reverse logistics more firms are adopting it as a strategic tool for economic benefits and corporate social image (Kannan, Palaniappan, Zhu, & Kannan, 2012). Therefore the value recovery can bring economic, environmental and social benefits for the business and the society. All the mentioned recovery options are a ground for building a sustainable supply chain because due to these opportunities is possible to decrease the consumption of fresh raw materials and to reduce the footprint of many industrial sectors. The intention of the regulatory authorities is to reach very low levels of pollution. Policy makers should not simply set the agenda of modern research, but also involve a wider base scientific society and business in conducting sustainability policies (Stefanov, 2018) such as reverse logistics. With

its proven contribution for the development of sustainability the reverse logistics correspond to the SDGs set by UN. Last but not least an important requirement in many regulations and white papers including the SDGs is the innovation. Huang and Yang defines the term “reverse logistics innovation” as a firm`s capacity to seek creative or novel ideals, behaviors, products and processes in carrying out reverse logistics activities to reduce environmental burdens and foster sustainable development (Huang & Yang, 2014, p. 619). However the reverse logistics seems to become a key to sustainable future of logistics activities and a good way to correspond to the world economic direction to greener and circular economy.

Closed-loop Supply Chain Management

In the previous point definitions of reverse logistics were considered. As the reverse flows normally seek the reinsertion of used materials back into production systems for reprocessing and resale, often these systems are also called “closed loop” supply chains (Guide & Van Wassenhove, 2009). But with the aim of integrating both forward and backward flows, a new concept has been developed in many supply chains and in many sectors: Closed Loop Supply Chain Management (CLSCM) (Belvedere & Grando, 2017, p. 167).

Closed-loop supply chains are supply chains where, in addition to the typical “forward” flow of materials from suppliers all the way to end consumers, there are flows of products back (post-consumer touch or use) to manufacturers (Ferguson & Souza, 2010).

Closed Loop Supply Chain Management refers to all forward logistics in the chain (like procurement of materials, production and distribution) as well as the Reverse Logistics to collect and process returned (used or unused) products and/or parts of products in order to ensure a socioeconomically and ecologically sustainable recovery (N. Raj Kumar & R.M. Satheesh Kumar, 2013).

One of the conclusions that can be made from these statements is that the closed loop supply chain includes the complete flow of materials and products (forward and backwards) which make the concept wider than the reverse logistics where the focus is only on the reverse flows. This is also confirmed by Guide and van Wassenhove when they say that the term “Reverse Logistics” can be identified as sub process, dedicated to the phases of product transportation to facilitates for inspection, sorting and disposition (Guide & Wassenhove, 2002). Correspondingly, a closed-loop logistic network consists of both forward logistic network and reverse logistic network (Ye & Zhenhua, 2014). Since the term Green or Sustainable Supply Chain has also growing significance it has caused organizations to consider closing the supply chain loop, in order to achieve environmentally friendly

manufacturing, competitive advantage and higher profits (Sarkis, Zhu, & Lai, 2011). Kumar is going even further stating that CLSCM is the summing up of Green Operations (Reverse Logistics), Green Design, Green Manufacturing, Waste Management, and Product Life Cycle Assessment (N. Raj Kumar & R.M. Satheesh Kumar, 2013). By closing the loop something bigger than incorporation of forward and backward flows is emerging. In CLSC is incorporated also the phase of design and construction of products as well as the life cycle assessment. The product design affects the stage of production, consumption and end-of-life and is very important for the reverse logistics. Incorporating the steps from design of a product through production, consumption and recovery value, the closed-loop supply chain can have a true impact on the sustainability and to respond the needs of sustainable development goals as well as the needs of circular economy. By closing the loop the other benefit for the economy is the possibility to pass from linear to a circular model which is more sustainable.

Many articles in the field of reverse logistics and closed-supply chain are either for particular industry either for particular country. It seems to have a gap for the state of reverse logistics and CLSCM for the region of Eastern Europe.

CONCLUSION

As it was said the reverse logistics is concentrated on the backwards flow of materials. Its general and primer focus is on the effective management of these flows and as far as the companies can recover resources and value in this process the reverse logistics is intrinsically aligned with environmental sustainability. Nevertheless the wider concept is the closed-loop supply chain because comprise also the forward flows and in this way it can be reached further sustainability of the entire supply chain.

Many questions rise when speaking about sustainability concerning barriers and drivers for implementation of sustainable practices, the awareness of companies and consumers for the environmental benefits, the cost for the business, the existing regional and international legislation etc. Many studies are conducted in the field of reverse logistics and closed-loop supply chain in terms of different industries, countries or regions but few concern the region of Eastern Europe and the state of understanding of these terms and the degree of application of reverse logistics and closed-loop practices.

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Industry 4.0 – Barriers and Opportunities for the Sustainable Development of SMEs

Krasimira Shindarova¹

ABSTRACT: The new technologies have dramatically changed our life and our economy in the past 20 years. In many sectors of the economy the number of industrial robots and automation is rising, enabling manufacturing companies to offer products and services to current and new markets at competitive costs. Trends and technologies play a role to reshape the way manufacturing is organized and value is created. These changes are transforming entire systems of production, management, and value creation process are radical and pose a challenge to enterprises, especially for SMEs. While large companies are ready to anticipate the potential and risks of digitization for their respective business models and have introduced innovation processes, SMEs are at risk of falling behind global competition. Approaches related to Smart Factories and Industry 4.0 could help SMEs to address these challenges and to assess the possibility of adopting advanced manufacturing solutions and transforming their organizations towards next-generation factories with more competitive, modern and sustainable production. In this context, literature lacks a well-founded investigation of this topic. Therefore, this study attempts to close the present research gap. The objective of the present paper is to review the existing definitions of Industry 4.0, to explore the main benefits for SMEs of implementation of the concept, to identify the needs and enablers for a smart and intelligent factory. The study will also indicate the readiness of Bulgarian SMEs for implementing the concept of Industry 4.0 and to point out the barriers, which threaten the Bulgarian enterprises. The research conducted in the paper is based on secondary data, obtained from European, national, professional reports and studies, carried out by State institutions, project consortia, enterprises and researchers.

Keywords: Industry 4.0, digitalization, transformation, sustainability, manufacturing.

JEL: 014, 033, L23, M11

INTRODUCTION

The new technologies have dramatically changed our life and our economy in the past 20 years. In many sectors of the economy the number of industrial robots and automation is rising, enabling manufacturing companies to offer products and services to current and new markets at competitive costs. Trends and technologies play a role to reshape the way manufacturing is organized and value is created. These changes are transforming entire systems of production, management, and value creation process are radical and pose a challenge to enterprises, especially for SMEs. While large companies are ready to anticipate the potential and risks of digitization for their respective business models and have introduced innovation processes, SMEs are at risk of falling behind global competition. Approaches related to Smart Factories and Industry 4.0 could help SMEs to address these challenges and to assess the possibility of adopting advanced manufacturing solutions and transforming their

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organizations towards next-generation factories with more competitive, modern and sustainable production.

In this context, literature lacks of a well-founded investigation of this topic. Therefore, this study attempts to close the present research gap. The objective of the present paper is to review the existing definitions of Industry 4.0, to explore the main benefits for SMEs of implementation of the concept, to identify the needs and enablers for a smart and intelligent factories. The study will also indicate the readiness of Bulgarian SMEs for implementing the concept of Industry 4.0 and to point out the barriers, which threaten the Bulgarian enterprises.

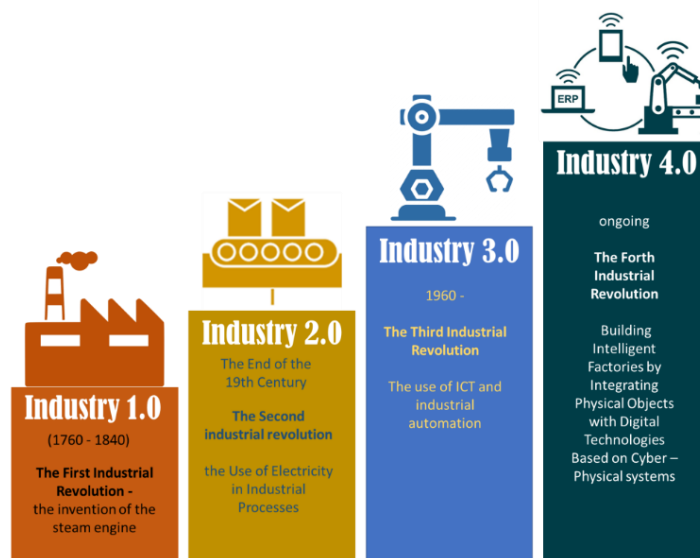
The research conducted in the paper is based on secondary data, obtained from European, national, professional reports and studies, carried out by State institutions, project consortia, enterprises and researchers.

INDUSTRY 4.0 EXISTING DEFINITIONS AND LITERATURE REVIEW

Emergence of the Industry 4.0.

The term Industry 4.0 is a result of several historical stages of industrial revolution. Researchers and practitioners analyze four major changes (industrial breakthroughs) in the industrial development of the world:

FIGURE 1
Stages in industrial development of the world – Four Industrial revolutions



Fourth Industrial Revolution or Industry 4.0 is the last and ongoing industrial transformation (Qin et al., 2016)²- Building Intelligent Factories by Integrating Physical Objects with Digital Technologies (Brettel et al.³, 2014, Hermann et al., 2016⁴). The key element that characterizes this new industrial phase is the profound change in connectivity of manufacturing systems due to the integration of ICT, the Internet and machines into cybernetic systems (Kagermann et al., 2013⁵, Schwab, 2016⁶). As a result, Industry 4.0 can be seen today as a new industrial age based on the industry platforms used in the industry (Lasi et al., 2014⁷, Parlanti, Reischauer, 2018⁸). 2017,

In 2011 in the Hannover Fair⁹ the term “Industry 4.0” (shortened to I4.0 or simply I4) was defined for the first time by the Federal Government of Germany as the main initiative to adopt a high-tech strategy for transformation of industrial manufacturing through digitization and exploitation of new technologies. The German government formed 5 working groups, which in April 2013 presented a report¹⁰ announcing Industry 4.0 as a platform¹¹ for the future of the industry.

In order to refer to this new factory model born of the 4th Industrial Revolution, also terms like "factory of the future", "factory 4.0" and "smart factory".

What is Industry 4.0?

There are many definitions of Industry 4.0 during the years.

² J. Qin, Y. Liu, R. Grosvenor (2016) A categorical framework of manufacturing for industry 4.0 and beyond

³ M. Brettel, N. Friederichsen, M. Keller, M. Rosenberg (2014) How virtualization, decentralization and network building change the manufacturing Landscape.

⁴ M. Hermann, T. Pentek, B. Otto (2016) Design principles for industrie 4.0 scenarios 2016.

⁵ H. Kagermann, W. Wahlster, J. Helbig Recommendations for Implementing the Strategic Initiative INDUSTRIE 4.0.

⁶ K. Schwab The Fourth Industrial Revolution (first ed.), World Economic Forum (2017).

⁷ H. Lasi, P. Fettke, H.-G. Kemper, T. Feld, M. Hoffmann Industry 4.0 Bus. Inf. Syst. Eng., 6 (2014).

⁸ G. Reischauer, Industry 4.0 as policy-driven discourse to institutionalize innovation systems in manufacturing Technol. Forecast. Soc. Change.

⁹ The Hannover Messe - <https://www.hannovermesse.de/home> is one of the world's largest trade fairs.

¹⁰ Recommendations for implementing the strategic initiative Industrie 4.0: Final report of the Industrie 4.0 Working Group H Kagermann, W Wahlster, J Helbig - Forschungsunion: Berlin, Germany, 2013.

¹¹ Industrie 4 Platform - <https://www.plattform-i40.de/PI40/Navigation/EN/Home/home.html>, institutionalizing the Industry 4.0 and serving as a central point of contact for policy-makers.

TABLE 1
Definitions of Industry 4.0

Author	Industry 4.0 Definition
Koch et al. (2014)	A new level of organization and control over the entire value chain of the life cycle of products, it is geared towards increasingly individualized customer requirements
MacDougall (2014)	It connects embedded system production technologies and smart production processes to pave the way to a new technological age which will radically transform industry and production value chains and business models
Schmidt et al., (2015)	The digital and physical processes interact with each other cross-geographical and organizational boundaries. The core of this Industry 4.0 is Internet of things (IoT) which allows connection of machines, products, systems and people.
McKinsey Digital (2015)	A digitization of the manufacturing sector, with embedded sensors in virtually all product components and manufacturing equipment, ubiquitous cyber physical systems, and analysis of all relevant data
Deloitte AG (2015)	A further development stage in the organization and management of the entire value chain process involved in manufacturing industry
Pfohl et al. (2015)	The sum of all disruptive innovations derived and implemented in a value chain to address the trends of digitalization, automatization, transparency, mobility, modularization, network collaboration and socializing of products and processes
Hermann (2015)	Within the modular structured Smart Factories of Industrie 4.0, Cyber- Physical Systems monitor physical processes, create a virtual copy of the physical world and make decentralized decisions
Elvis. (2015)	Industry 4.0 include horizontal integration of data flow between partners, suppliers and customers, as well as vertical integration within the organizations frames – from development to final product. It merges the virtual and the real world. The result is a system in which all processes are fully integrated - system in information in real time frame. The speed and rate of changes in consumer trends will be a significant driver of Industry 4.0.
Kagermann, 2015, Schumacher et al., 2016	Industry 4.0 is the result of the growing digitization of companies, especially in terms of production processes
Geissbauer et al. (2016),	End-to-end digitization of all physical assets and integration into digital ecosystems with value chain partners
Morteza, G. (2018)	Integrated value creation system that consists of 12 principles and 14 technological trends. The first step for the transition to Industry 4.0 is the development of a comprehensive strategic roadmap that will carefully identify and plan each step the manufacturing company should undertake as well as the timeframe and costs and benefits associated with each step

Enablers of Industry 4.0

Industry 4.0 is the combination of several important digital innovations that are ready to transform the manufacturing sectors.

FIGURE 2
Technologies, enabling Industry 4.0



TABLE 2
Description and benefits of the technologies enabling Industry 4.0

Digital Innovation	Description	Benefits
Artificial intelligence (AI)	The is made up of numerous subfields such as machine learning, and focuses on enabling machines/robots to learn, understand, reason, plan and act when exposed to new data within a stipulated parameter.	Advanced human-machine interfaces - Robotics, Sensor, Machine Self-Learning, Cognitive Systems, Artificial Intelligence are technologies that lead to improved human-machine connectivity, relieving labor, increasing productivity and safety.
Robotics automation	Equipped with AI, Robots now can act as autonomous entity and without the need of human intervention can perform tasks and procedures on their own. The robots are capable of learning new things, working together with humans and making decisions.	The use of automation, interconnected, and modular productive systems to increase the efficiency and performance of manufacturing equipment and processes.
Internet of Things (IoT)	A network of physical objects - devices, vehicles, etc. that exchange information with each other or with the external environment via the Internet.	This enables real-time responses and decision-making. The smart sensors are very important for the realization of interactions between people and machines and provide the practical connectivity of the real physical world to the virtual one.

Digital Innovation	Description	Benefits
Simulation	Augmented Reality (AR) and Virtual Reality (VR) can produce real-time simulation that allows virtual testing out various manufacturing techniques without spending huge amounts of money on real-life testing.	Manufacturers are able to plan and execute optimal production lines that are highly efficient, cost-saving and productive.
Additive manufacturing	Refers to technology such as 3-D printing to create a prototype or small series of customized products.	This leads to more time and cost saved.
Cyber security	With the increasing connectivity and use of standard communication protocols on all machines on the factory floor, there is a need to emphasize on data security to protect against malicious attacks in industrial systems and manufacturing lines.	This necessitates parallel development of systems that guarantee information security, reliable and uninterrupted operation of communication and computer systems.
Cloud computing	Cloud provides the space and computing power to manage voluminous data as well as provide easy sharing of data, especially in global environments, it increase the efficiency of procedures, reduce costs and also allows certain procedures to be executed remotely.	Cloud platforms are enabling more data-driven services, real-time data collection and analysis, monitoring and safety control.
Augmented reality	Technology, such as computer vision and object recognition, combining real-world data with computer-generated data.	It optimizes processes, improves customer experiences, lead to cost reduction, time saving, improve quality through the use of less resources.
Big data and Data mining	Multidisciplinary process of collecting, filtering, analyzing and interpreting different types, origins and volume of data	Analytics collected from production, material, storage, and other management systems enables better insights and decision making.
System integration	System integration occurs in vertical systems (within the industry value chain) and horizontal systems (across multiple value chains). It brings together the components of sub-systems into a single system, achieving end-to-end digital integration across the entire value chain.	The technologies enables individualization of products and flexibility.

When these technologies unite, they integrate the physical and virtual worlds – an industrial environment in which people, machines, equipment, logistics systems and products communicate and interact directly, forming cyber-physical systems.

In the article "Industry 4.0 - Challenges and Opportunities" (Todorov, G, Kamberov, K; Statev, P¹²) define four basic principles aimed at supporting the companies in the digitization:

- **Interoperability** - the ability of machines, devices, sensors and people to connect and communicate through the Internet (Internet of Things - IoT and Internet of People - IoP);
- **Virtualization (modeling of production processes)** - creating virtual copies of physical production, using sensor data in virtual and simulation models;
- **Technical Assistance** - Creation of assistive systems, supporting emergency (real time) decision-making, supported information through collected, processed and visualized data. And creation of cyber-physical systems ¹³for physical support (or replacement) of the operator in performing dangerous or tiring physical activities;
- **Decentralization** - the ability of cyber-physical systems to make autonomous decisions and carry out relevant automated activities

INDUSTRY 4.0 AND SMES

Importance and Opportunities

According to the estimations from academicians and industry leaders, it is expected until 2025 1 trillion sensors to be connected to internet. The process of implementing new technologies is being conducted in all industries to lead to reducing costs, increasing productivity and providing customers with solutions tailored to their specifics (Müller et al. (2018). The essential reason for introducing Industry 4.0 into real practice is to increase business sustainability and competitiveness.

Nowadays it is essential for the companies to be flexible and ready for real time response to the market needs and changes (Shelotzee, 2015). That is why many companies adjust their manufacturing process in order to focus on individualized products, to guarantee better perfection production process.

One of the major futures of Industry 4.0 is the self-management and self-control of data exchange between machines (Brettel et al., 2014; Federal Ministry of Education and Research, 2013; Wolter et al., 2015). Based on sophisticated technologies, “smart factories” produce “smart products”—each easily identifiable and localizable (Stock and Seliger 2016; MacDougall 2014). The Industry 4.0 ensures a new way of doing business and a new source

¹² Industry 4.0 – Challenges and Opportunities (G. Todorov, K. Kamberov, P. Statev).

¹³ Cyber-physical systems are characterized by connecting real (physical) objects to information processing objects (virtual), through open, sometimes global, and always interconnected.

of value creation, especially for the manufacturing companies from the traditional sectors. Industry 4.0 provides numerous benefits for the companies that implement its principles:

- **Individual approach and personalized products.** The technologies allow companies to take into account the customers' individual and specific criteria regarding design, configuration, order, production, operation, and changes within a short timeframe.
- **Decision making optimization.** The real-time analysis and Big Data capabilities make the real-time decisions possible, that ensures the flexible troubleshooting and optimization reactions across the manufacturing companies.
- **Flexibility.** The cyber systems connected in a network lead to the dynamism of business processes in terms of quality, time, risk, sustainability, price, environmental impact. Manufacturing processes are easy to change, eliminating logistical issues.
- **Resource and energy efficiency.** The cyber-physical systems are able to optimize production processes, the cost of resources and energy and to reduce emissions.
- **Create value by offering new services.** Industry 4.0 makes it possible to create new forms of value creation and employment.
- **Social impact.** The use of cyber-physical systems change the organizational models of enterprises. This is effective both in the replacement of human labor and in assisting them (technical assistance), and will create new opportunities for work organization.

Factors for implementation of Industry 4.0

Two are the major factors that have a positive impact on the digitization of the industry:

- **Infrastructure:** The digital infrastructure and its connectivity to the Internet is one of the most important factors for Industry 4.0. It requires good broadband internet infrastructure also in the partner countries (Kagermann et al., 2013). The government, (national and international level), should support I4.0 implementing the relevant quality standards for IT infrastructure. The manufacturing companies must provide appropriate communication and IT infrastructure to connect, and to exchange and analyze data in real time (Geissbauer et al, 2014).
- **Enterprise's size.** Many of the SMEs are not prepared for the structural changes because they lack of qualified staff or they are not familiar with technological trends (Kagermann et al., 2013). The larger companies have better technical and financial

capabilities, employees with specific knowledge and experience, but on the other hand have complex and strictly defined operational processes.

Barriers and Challenges

Most of the SMEs are not aware about the challenges they may face when implementing Industry 4.0 principles. According to a report, large enterprises are significantly more advanced in the deployment of high-tech IT systems in their manufacturing factories than SMEs (C. Schröder, 2016).¹⁴ The major challenges and barriers identified by the report are:

- **Lack of strategies for resource productivity and efficiency** – it is due to financial investment needed to implement it and the lack of state support. SMEs have neither the financial, nor the human resources and capabilities.
- **Data security and uniform standards.** SMEs often adapt to the standards of the big company they work most often with or "copy" the processes of their large partners without the expertise and when it is not applicable to them. It makes difficult for SME to join value-added networks with different standards and norms. The biggest obstacle to the use of cloud services is security concerns.
- **Restructuring the business** (Slavkov, V 2018)¹⁵. SMEs often lack established processes and a clearly defined decision-making chain. They need a flexible structure to adapt to different economic conditions, short production and delivery times, small or large production volumes, and so on.
- **Lack of financial resources.** Large funds and investments are needed to stimulate the digitization process. SMEs are afraid they will not return the investments.
- **Reluctance to change.** Some manufacturers are unwilling to change their traditional business models or cooperate with new partners and competitors. The whole organization must be involved in the process of digital transformation.
- **Non-compliance of employees' skills.** Industry-related procedures 4.0 require qualified staff with experience in ICT. Manufacturing companies must acquire skilled labor by replacing or retraining their current employees.
- **Lack of capacity to test Industry 4.0-based solutions** and limited access to facilities to testing and prototyping.

¹⁴ Schröder, Christian. (2016). The Challenges of Industry 4.0 for Small and Medium-sized Enterprises.- <https://library.fes.de/pdf-files/wiso/12683.pdf>.

¹⁵ Slavkov, V, 2018, Problems and Challenges in Implementation of Industry 4.0. Spesima's experience <http://library.fes.de/pdf-files/bueros/sofia/14601.pdf>.

- **Lack of awareness** about high-tech solutions and the advantage they provide.

Bulgarian SMEs and Industry 4.0

According to the European Innovation Scoreboard 2017¹⁶, Bulgaria is the only EU member state not to have made any progress in its innovation potential for the past seven years. Bulgaria's results show serious deficiencies in human resources, use of internet, integration of digital technology and digital services provided by the public administration. A growing ecosystem of tech entrepreneurs has emerged in recent years, but investment in the digitisation is still limited. The digital intensity index¹⁷ shows that the number of digitised enterprises in 2017 was among the lowest in EU. The annual SME productivity is more than four times lower than in EU.

In 2018 within a project SFH¹⁸, was held a survey among Bulgarian manufacturing SMEs in order to identify their state and challenges in the process of digitization and smart manufacturing. The basic conclusions from the survey are:

- Bulgarian SMEs have difficulties to understand the impact and benefits of digitalization for their organization;
- Underestimation of what digital transformation means- often considered as just purchase of machine with Artificial intelligence or Machine learning capabilities, without using its full capabilities;
- SMEs do not have information on how to grow, how to innovate and how to use the new business models;
- There is available infrastructure for testing, prototyping and validation but SMEs do not have information about it and how it could be used;
- Small and medium sized companies lack the skills to attract investment and to use available funds for innovation;
- Lack of interest for transformation from the management;
- Lack of necessary digital skills of the employees;
- There is no political consensus for prioritization of digital transformation as governmental policy. Bulgaria does not have a strategy for digital transformation and there is very low funding to support digitization processes in SMEs.

¹⁶ European Innovation Scoreboard 2017 - www.globalinnovationindex.org/gii-2017-report.

¹⁷ The index of the European Commission measuring the progress of member states in terms of digital economy and information society - <https://ec.europa.eu/growth/tools-databases/dem/monitor/scoreboard>.

¹⁸ Smart Factory Hub project, funded by Danube transnational programme - <http://www.interreg-danube.eu/approved-projects/smart-factory-hub>.

CONCLUSION

The main aim of this paper was to provide an overview of Industry 4.0 definitions, enabling technologies, factors, to explore the main benefits for SMEs of implementation of the concept and to identify the needs and enablers for a smart factories. The study indicated the readiness of Bulgarian SMEs for implementing the concept, pointing out the barriers, which threaten the Bulgarian enterprises. Some clear benefits from the implementation of Industry 4.0 principles were identified as: flexibility, quality standards, efficiency, meeting customer specific needs, creating values. Nevertheless, the majority of Bulgarian SMEs are away from their digital transformation due to serious barriers such as: lack of awareness about the benefits, lack of financial resources, lack of skilled human resources, lack of skills to attract investment and funding for innovation. Also, a big barrier identified is the missing state support. The most important strategic documents supporting innovation are outdated and not relevant. There are no relevant financial mechanisms and funds for supporting the acquisition of the necessary skills and qualifications, research and development of new products.

Based on this study, future research need to analyze readiness, needs and possible mechanisms to support penetration of Industry 4.0 in Bulgarian manufacturing SMEs

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Data Mining Techniques Suitable for Customer Churn Discovery

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ABSTRACT: This paper presents different customer churn data mining techniques. Customer churn is a term which defines clients who are ending their current contracts with a certain company. It is a problem which is observed in many industries such as: financial, travel, telecommunications, etc. The paper is focused only on the impact that customer churn has on the telecommunications sector. It shows the most common causes and possible solutions for detecting customer churn as this is an important problem directly related to a company's revenue. Retaining the possible churners will result in higher revenue and better market positioning.

Keywords: decision tree method, customer churn, data mining.

JEL: L96, C38.

INTRODUCTION

Customer churn is a term used to define clients who end their contracts or subscriptions with a company. It is one of the biggest issues in various industries such as: financial, retail, travel, telecommunications, etc. It is necessary to understand what causes this problem, in order for a company to have a continuous and sustainable business growth. It is a difficult task to define the churn customers, this is why all available customer data in a company must be analysed. Customer satisfaction, customer level of engagement or decrease in the usage of a company's services, could be a sign that there is a problem. In this paper different causes for customer churn are shown and different techniques for developing models are presented.

According to Hadden (2007) due to the high costs the aim of the telecom companies has changed from acquiring new customers to retaining existing ones. Which means that stopping the leaving customers (churners) would result in increased sales and reduced market costs compared to the attraction of new customers. Because of that the customer churn prediction has become more and more popular among the rapidly growing and competitive companies in the telecom sector. This makes customer churn prediction models an inseparable part of the decision making and planning processes in the sector.

Customer retention is often mentioned as a main objective of the Customer Relationship Management (CRM), because of its high significance level, specialists are developing different tools which could be used to support the creation of the predictive models and the classification of customers. Telecom companies are changing their focus towards a long-term relationship, examining customers' behavior and needs. When the customer churn models are

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being created, knowledge discovery in databases (KDD) techniques must be carefully reviewed, because they are used to discover hidden relationships in the customer data.

CUSTOMER CHURN

The word “churn” comes from the words „change“ and „turn“ and means contract cancelation.

Customer churn could be calculated easily with this simple formula for customer churn rate:

$$\text{Customer churn rate} = \frac{\text{number of churned customers}}{\text{total number of customers}} * 100$$

Nevertheless, it is not completely clear how this result could be useful. It is also uncertain if the business decisions based on the result will be relevant for the future campaigns or if the result used for measuring the effectiveness of the current campaign shows relevant information. In order to have useful information which will check the result of the recent campaigns this calculation should be done on a monthly basis.

Churn rate (monthly)

$$= \frac{\text{customers churned during the month}}{\text{number of all customers at the beginning of the month}} * 100$$

This scenario is much better because it will reveal the churn rate for a certain month. From an economic point of view, customer retention leads to higher revenue for the company.

In 2000 the marketing cost of attracting new customers was stated three to five times higher than the cost of retaining existing ones (Ng, 2000). In 2007 the cost of attracting new customers was already five to ten times greater than the cost of retaining present ones (Chu, 2007). Because of that customer retention has become such an important topic for various businesses through the years.

The cost of attracting new customers is increasing each day. Thus a new idea has started to grow in the marketing division of the telecom companies. Campaigns for winning new customers are no longer with highest priority, as opposed to campaigns created for developing strong customer-company relationships. Currently companies are focused in customer satisfaction and customer loyalty programs. This topic will be discussed further on.

In the field of telecommunications a churn customer is someone who switches from their service provider to another one. Retaining that kind of customers is a major issue and also a big challenge in the highly competitive markets. Even though churn customers are people who decide to pick another service provider probably for better services, these customers are, by all means, not the same. They are classified into three types (Lazarov, 2009):

- Active churners (voluntary) – these are customers who decide to cancel their contract on their own and switch to another service provider. There are many reasons which could provoke a customer to make that decision such as: low quality of service, higher costs compared to the costs of other providers' services, lack of loyalty programs, bad support, and no feedback when a problem is reported, regular no-service periods of time, privacy concerns, etc.
- Passive churners (non-voluntary) – the contract is canceled by the company itself. Causes for this could be customers who are bad debtors or fraudsters.
- Rotational churners (incidental) – in this case the customer has no intentions of switching to another provider. This case could be related to changes in the circumstances which halt the customer from future consumption of the service. Such reasons are unexpected financial problems (can't pay his/her bills) or permanently leaving for another city (country) where the current provider's services are not available.

In order for an accurate model to be prepared, the specialist who is working with the data must have a good business understanding i.e. to have basic knowledge of the customers and to understand the relationships between them and the organization. Since Customer Relation Management (CRM) deals with such kind of relationships, companies from the telecommunications sector have started to pay more attention to it (Payne, 2005).

CRM is really a broad discipline. It starts from the basic contact information all the way to creating marketing strategies. There are four main parts of every CRM (Ngai, 2009):

- Customer identification – at this phase the people who are most likely to become customers are targeted, based on their age, location, interests, etc. Furthermore the customers who churn to the competitive companies are being analyzed in order to find a way to win them back.
- Customer attraction is the stage after the customer identification. After the group of potential customers is identified, the specialists can focus the company's resources towards attracting those targeted customers. Direct marketing is a part of customer attraction. Using various channels direct marketing communicates an offer to the

target customers. It uses channels such as direct mail, telephone calls, brochures, etc. Very often telecommunications companies create separate departments that deal with direct marketing. These departments' main objective is to develop a personal connection with their target audience.

- Customer retention is the primary concern for CRM. Customer satisfaction is the key condition related to customer retention. A main element of customer retention is the one-to-one marketing – personal campaigns created by analyzing, detecting and predicting any changes in the customer behavior (Ngai, 2009) using profiling and recommendation systems. Customer loyalty programs are the other big part of retaining customers. Encouraging the loyal ones will always lead to a positive outcome and it could be done with special service offers with more add-ons, discounts or gift products.
- Customer development – at this step customer lifetime value analysis is first calculated. A company defines it as a forecast of the total net income that could be expected from a certain customer. Secondly the up / cross selling where a customer who buys a service is encouraged to buy a complimentary or relative service to the first one. (If there is a condition where the customer has to buy one service in order to buy the second one it becomes illegal.) Finally the market basket analysis is completed. It is useful when a combination of products or services are spotted to frequently occur together in transactions. It allows the company to recognize different relationships between the services / products that people purchase.

As it was mentioned above customer retention is the primary concern of CRM, it is directly related to the loyalty programs and customer satisfaction. Fulfilling customers' expectations is a key part of customer retention, more over if their expectations are exceeded, these customers will become loyal to the company. However, when these expectations are not met, the opposite effect can happen resulting in customer churn.

There is another data besides customer satisfaction and loyalty that could be used for analyzing customer behavior. Reaching a customer for feedback could be an impossible task. This is why data scientists have to find data from other sources. An example for such kind of source is the CDR (call detail record) data. CDRs contain 100 rows of data about a single customer call, message or data usage. Some of these rows have information about:

- Caller phone number
- Receiver phone number
- Beginning and end of the session data
- Duration of the conversation

- Billed phone number
- Unique id of the session
- Session type (voice, SMS or mobile data)
- Encountered problem during the session
- Cell id/s from where the session occurred

When this data is available the first step is to load it into the data warehouse of the company. Then the data is being prepared – cleaned, missing records are deleted or populated, if possible. Then this data is transformed, for example: a phone number’s data type is “numeric” but because it is not used for calculations it is often transformed to data type “string”. Later on a data mining method is selected and a data mining technique is applied to the prepared data set. The final step is to interpret and evaluate the derived results.

Based on CDR data a churner could be targeted – someone with a decline in the number of calls dialed during the past few months. Again based on CDR data, less amount of calls from a certain mobile cell could be a warning to the telecom company about a future problem with this cell. Not only could analyzing CDR data help predict possible churners, but it can also be used to increase customers’ satisfaction. Offering more MBs to customers who often finish theirs before the end of the month could result in a positive outcome.

RELATED WORKS

In the “Data Mining Applications in Customer Churn Management” paper (KhakAbi, 2010) there is a comparison between the different techniques used for customer churn analysis. It presents other research papers classified by the techniques used for building the customer churn model.

Here are the top five used techniques:

Table 1
The top five used techniques

<i>Technique</i>	Number of works
<i>Neural Networks</i>	15
<i>Decision Tree</i>	13
<i>Logistic Regression</i>	13
<i>Random Forests</i>	7
<i>Support Vector Machine</i>	7

Source: KhakAbi, 2010.

The presented techniques are applied to the data sets from many different sectors. However, this paper’s main focus is on the field of telecommunications. In the table below only the models based on data from that field are selected:

Table 2
Number of papers related to the telecom sector

<i>Technique</i>	Number of works
<i>Neural Networks</i>	5
<i>Decision Tree</i>	3
<i>Logistic Regression</i>	2
<i>Random Forests</i>	1
<i>Support Vector Machine</i>	1

In addition to this research, the following table presents papers which were not included in the “Data Mining Applications in Customer Churn Management”:

Table 3
Additional papers related to the telecom sector

<i>Author</i>	Technique
<i>(Mozer, 2000)</i>	<i>Neural Network; Logistic regression</i>
<i>(Tsai, 2009)</i>	<i>Hybrid Neural Network</i>
<i>(Tuğba, 2010)</i>	<i>Decision Tree; Logistic Regression</i>
<i>(Khan, 2015)</i>	<i>Linear and logistic regression; Support Vector</i>
<i>(Mamcenko, 2014)</i>	<i>Neural network; cox</i>
<i>(Owczarczuk, 2010)</i>	<i>Regression; Decision trees</i>

THE MOST USED TECHNIQUES FOR CUSTOMER CHURN ANALYSIS

After the comparison of related works in the field of customer churn modeling in the telecommunications sector was presented, the most used techniques will be introduced to the readers of this paper.

Let’s start with the Neural Networks as the most commonly applicable technique. It is inspired by the human brain neural connections. This technique is applicable to both regression and classification tasks. A neural network contains interlinked groups of artificial neurons. It is known as adaptive analysis which could change its structure during the learning process. This algorithm is used to create complex relationships between the input and the output data in order to discover hidden patterns in the analyzed data set.

Another technique which is commonly used is the Decision tree technique. It has a structure which includes root, branch and leaf nodes. The root node contains the first question/ test attribute. Each branch node (internal node) represents the outcome of the previous question. A tree might have two or more branch nodes. Each leaf contains the final result – class (good rating / bad rating) or decision (yes / no). This technique is equally suitable for both numerical and categorical data.

The Logistic regression analysis is a statistical method that uses previously observed training data set / historical data on a new data set to predict data values. It is a tool with very high significance when it comes to machine learning. Logistic regression is a very useful analysis when dealing with categorical data. It is also expected that the classification is more accurate when the input data is more relevant. It is one of the most used data mining algorithms when it comes to binary data classification – yes or no, 1 or 0 (Witten, 2005).

The Random Forests technique. It is a “forest” that contains many decision trees. It outputs the class which is the mode of the results produced by each tree. Each tree proposes a classification for the data, then the forest chooses the most frequent classification as a final one. “It is resistant to missing data and can handle inputs with large dimension. It is also efficient and interpretable” (KhakAbi, 2010).

Finally, the Support Vector Machines or also called SVM, whose origin comes from statistical learning theory, is a useful technique for classification tasks. This algorithm could be used also for regression tasks (Vapnik, 1998). It produces accurate results without over-fitting to the data. When a set of data is taken as an input into the SVM algorithm, it builds a line or a hyperplane which divides the data into classes. The idea is to find the maximum distance between two data points in order to ensure that new data will be classified more accurately.

CONCLUSION

With the progress of information technologies more and more data is available to be stored and processed. These huge amounts of data could be analyzed and with the help of data mining the needed knowledge could be derived in order to be used to retain a company’s customers.

Customers who leave the company (also called customer churn) are more important than ever before because of the rising cost of attracting new ones in the telecommunications sector.

Analyzing customer satisfaction, customer behavior and customer data is the only way to prevent customer churn before it happens. Creating churn models serves as a competitive advantage which results in improved service quality and higher revenue for the telecom company.

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Innovation of Traditional Regional Product by Applying of Selected Method of Quality Management

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ABSTRACT: *The success of the company on the chosen market is highly dependable on the quality of their products. It should be commonly known that the quality product is the one, whose quality reflects the consumer's view of it. Therefore, the aim of each company largely depends on the ability to adapt to the requirements and wishes of individual customers. This is necessary due to the competition on the market. The higher the competition the faster the company can lose this consumer. When the quality management system is successfully introduced in the company, it may not only increase the quality of goods and services, but also the whole production process, lower the costs of production, understand the failures in the production process and prevent them, help stabilize the company and so make a better and more competitive partner for the other firms. Based on the information provided, the main aim of the paper is to adopt quality planning method QFD and develop it for process quality planning of selected food product. A case study of the sheep cheese is given to illustrate how the proposed model can be effectively applied by quality team to determine the optimal target level of product innovation concerning to customer satisfaction. Traditional sheep cheese "bryndza" is rarely available on the world market. This sort of sheep cheese is well known in V4 countries. However, it is original product it also needs to fulfill customer requirements. The research resulted in a process planning matrix for sheep cheese. The matrix gives information about product innovation plan and the priority of the product plan. The information will help the design and shorten the product process innovation of selected cheese product.*

Keywords: *Consumer Satisfaction, Innovation Methods, Quality, Quality Function Deployment, Quality Planning, Sheep Cheese.*

JEL: *O21, M11, O32, O31.*

INTRODUCTION

Presumption of the successful business in a competitive market is to satisfy needs and wishes of customers. Intolerance of the mistakes and the poor-quality leads to customer dissatisfaction, which can easily, caused his absolute loss. In the age of the wealth, when the supply exceeds over demand is the only choice of the suppliers to diversify themselves from the competitors by quality.

One of the options, how to keep the specific level of the quality is to implement a quality management system (QMS) in a company. The QMS can bring many pros and cons. In general, effectively working QMS contributes not only quality products and services, but helps also to manage and stabilize processes, ensuring the financial health of the company as

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well as its overall stability. Advanced market is asking for the companies, which are trying to achieve effectiveness of their products by establishing the QMS as the successful implementation of business strategy.

LITERATURE OVERVIEW

In this competitive world is quality so important, that understanding its theoretical platform is highly important for every manager. There is no concerted approach to quality definition. Quality experts perceives the concept of quality differently. Quality experts' definitions of quality can be categorized by Nanda (2016) into two main categories - Quality is satisfying applicable specification or quality is satisfying the customer. Evans- Lindsay (2016) said that quality can be confusing concept. Siebes (2004) defines quality as subjective term for which each person has his or her own definition. People understanding quality subjectively and in relation to different criteria based on their individual roles in production-marketing value chain.

Elevation on the quality and its definition have changed during years and is still changing. Development of the term- "quality" adapted to changes, not only in production process, as well as to changes in the conditions, in which products are realized.

Dora- Kumar - Goubergen - Molnar - Gellynck (2014) stressed that the importance of quality has significantly grown over the last decades as well in the food sector. Increasing consumers' expectations, governmental regulations and expanding competition in the market are reasons why food companies deal with the quality.

Kapsdorferová - Svitová (2014) states that the main Quality Management Systems (QMS) that are implemented by food companies are those in the International Organization for Standardization (ISO) 9000 series, such as ISO 9001: 2015. The ISO 9000 series of quality management standards provides the framework for organizations to install a QMS following certain guidelines and leads to continually improved processes that satisfy customers' requirements.

Currently, there is proliferation of standards worldwide. One effect is that companies from developing countries and emerging economies have problems to meet with these standards. Another important effect is increasing marginal costs of certification and accreditation, which also puts pressure on company profits in industrialized countries. The combined impacts of these effects ask for strategies to revalue the cost/effectiveness of the certification and accreditation system.

DATA AND METHODS

The main objective of this paper is to adopt quality planning method QFD and develop it for process quality planning of selected food product. In research we have selected traditional regional product: sheep cheese “bryndza” and we evaluated the quality problematics from both customer and technical view with the usage of selected methods of quality management. For analysing the sheep cheese, we have chosen four different brands. Competitor products were selected according to the largest market share on Slovakia’s market. With the use of QFD method and its House of Quality matrix we may understand the consumer requirements and then transform them into the technical ones, analyze their relationship and after all improve the satisfaction of consumers about the quality of product also ensure the increase in quality. If we want to satisfy the main objective of this paper, there is necessary to satisfy also the secondary goals, which we set as follows: characterizing and benchmarking the chosen products in terms of their producer, nutritional value, targeted consumers and their analysis of strengths, weaknesses, opportunities and threats, identifying the consumer requirements, identifying the technical requirements for these products and constructing House of Quality matrix. The time scale of making this research was from April 2019 – May 2019. Sensory taste analysis from 151 responders’ between age of 25-60 years from all over the Slovakia was realized. The hidden test was realized, so the responders could not give more points to their favorite producer of bryndza sheep cheese. Four bryndza cheeses were tested in the research, the products are named as Product A, B, C and D.

RESULTS

Characteristics of selected product

Traditional bryndza sheep cheese is sharp, salty, grayish, grated and pin-rolled, crumbly, semi-spreadable 100% sheep cheese. There is no close equivalent in taste and texture among sheep, cow, or goat cheeses. This unique cheese make up a significant part of Slovak culture which can not be found or replicated in any other part of the world. The health benefits of bryndza cheese have gained international attention and a few studies have been done to uncover the hidden benefits of this tasty cheese. Sometimes is bryndza cheese called as a white gold because it helps to prevent cancer, has more than one billion microorganisms per gram and a large number of different hormones and enzymes. [Bryndza cheese](#) is made by using at least a 50% concentration of sheep’s milk, although that percentage can be much higher depending on the preferences of the producer. It is a soft cheese fermented with lactobacilli for several days, and for this reason is considered to be quite healthy for your gut.

The amount of salt added is quite limited, and most Slovaks agree that the salt content should always be below 3% of the finished cheese. Slovaks have been eating bryndza cheese since the 14th century, although it really only became common in the 17th century, according to written records. The first commercial production of bryndza cheese began in the 1780's in the north central part of Slovakia, the Liptov region. This region even has its own European sticker to designate the cheese which is made there, the Slovenská Bryndza. Since 2004, the name "bryndza" has been recognized by the European Union as a Protected Geographical Indication (PGI) unique to Slovakia.

Quality Function Deployment (QFD)

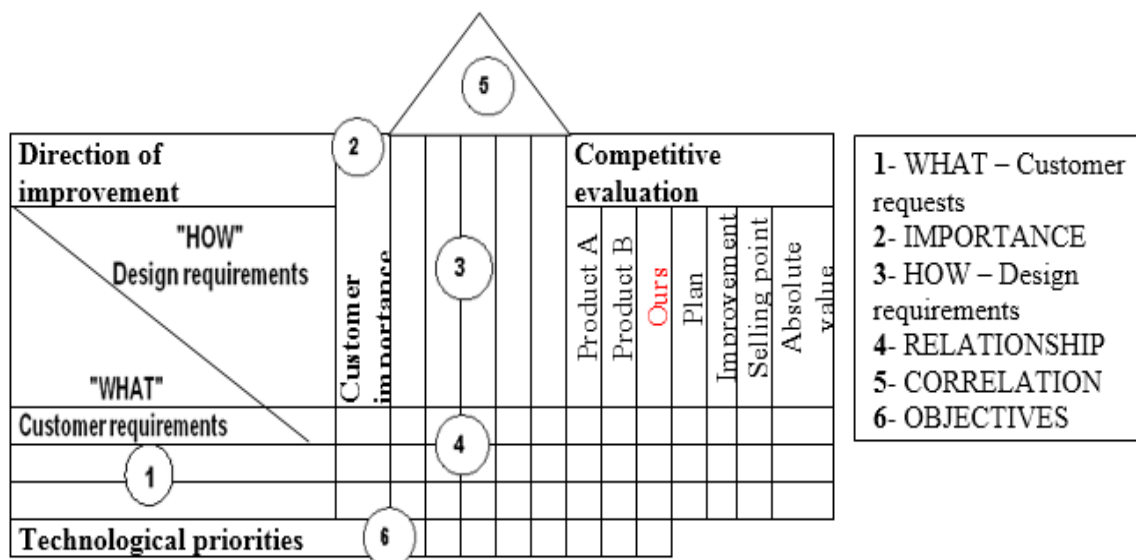
This Japanese methodology was developed in 1966, by Yoji Akao and it takes its name by three Japanese words: Hinshitsu (Quality) - customer expectations, Kino (Function) - how to meet customer expectations, Tenkai (Deployment) - how to manage the flow of development efforts. The Quality Function Deployment (QFD) Akao (2004) defines as a method for satisfying customers by translating their demands into design targets and quality assurance points. Although the QFD method was originally used just in automobile industry nowadays has its wide application in many different industries. The QFD method can be used in developing new products but it can be extended to a wide variety of neighbouring situation, like quality management, customer needs analysis, product planning, etc. The QFD method can be described as the one of the best proactive tools to support decisions-making process in complex environments. In relation to quality management the most understandable way how to communicate between the customer and the supplier of the product is QFD method. Maritan (2015) added that the QFD method makes us think, play, sketch, write, draw and express complex concepts in structured way. The QFD method is not only useful for its numerical results but also and particularly for its apparently slow process of systematic analysis. In general, this method is relatively simple and time-saving. QFD method is a planning method which starts with identifying customer needs and ends with determining process plans. Process quality planning is an important activity of quality assurance. It aims to determine manufacturing processes with appropriate process capability to produce product characteristics. However, most studies on quality planning by QFD are limited to the product planning stage. The approach to process quality planning through QFD has rarely been discussed. This paper adopts the optimal QFD model and further develops it for process quality planning. By incorporating an empirical capability function for process elements, a

composite process capability index (*CCp*) is presented to reflect the overall process quality level.

Methodical approach of QFD method (Figure 1):

1. List of customer requests on the ice cream quality obtained from the questionnaire survey is the first also the most important part of the "House of Quality" – “Voice of the customers”.
2. Weight of each customer requests was assigned in accordance with questionnaire survey too.
3. List of technical requirements was determinate in collaboration with the company and inserted in the “House of Quality”. – “Voice of the company”
4. Transformation of customer requests into technological characters was done.
5. After this we identify interactions between all the technical requirements by correlation matrix.
6. Output of all imported data is construction of the whole “House of Quality”.

FIGURE 1
Quality function deployment (QFD) matrix – „House of Quality “



Source: Own work, based on OAKLAND, J.1995. Total quality management. Oxford, 1995, 370.

Product Innovation by Using House of Quality

From the figure 2, we can observe the results of customer analysis. The major strengths of sheep cheese (Product B) can be seen in well sharp, good color and well spreadable. Appropriate salty taste is also very important strength of this product as it’s unique and it does

not seem artificial at all. The main weakness of this product is high price of the product. Sheep cheese (product A) has the main strength in its color, crumbly, pin rolled and well grated consistence. The weaknesses of this cheese are in package design, price and salty taste.

Sheep cheese (product C) has also a very good natural sharp taste and is well spreadable. A very important strength is also its price as it is a little bit cheaper than the others. However, the price corresponds with its taste. Another weakness can be seen in color and smell.

Sheep cheese (Product D) has also a lower price than its competitors, however the taste is considered by the customers as an artificial. An important strengths are crumbly, well spreadable and appropriate salty taste.

FIGURE 2
Customer analysis of selected products

Product	Strengths	Weaknesses
1 – Product A	Well grated	Package design
	Color	Expensive
	Pin rolled	Extremely salty taste
	Crumbly	Too much sharp
2 – Product B	Well sharp	Expensive
	Good color	
	Well spreadable	
	Appropriate salty taste	
	Package design	
3 – Product C	Natural sharp taste	Color
	Well spreadable	Smell
	Package design	
	Price	
4- Product D	Crumbly	Package design
	Good color	Tastes artificial
	Well spreadable	
	Appropriate salty taste	
	Price	

Source: Own research.

From table 1 we can also see the overall importance of all of these requirements for the customer. The most important requirements for the customers are taste, color, smell and spreadable.

TABLE 1
Correlation matrix of customer requirements
 (scale 1-5, 5 – excellent, 1- very low)

Customer requirements	Importance for customers	Product A	Product B	Product C	Product D	Plan	Ratio of improve	Absolute value
Well grated	3	5	5	3	3	5	1	15
Color	4	4	5	2	4	5	1,25	25
Pin-rolled	3	4	4	4	3	4	1	12
Smell	4	3	5	2	3	5	1,66	33,2
Crumbly	2	4	5	3	5	5	1,25	12,5
Well sharp	4	2	5	5	4	5	2,5	50
Well spreadable	4	3	4	5	5	4	1,33	21,28
Appropriate salty taste	5	1	5	5	4	5	5	125
Package design	3	2	4	4	2	4	2	24
Price	4	2	2	5	3	5	2,5	50

Source: Own research.

We can observe that the most important customer requirements, when using the scale from 1 to 5 was appropriate salty taste of a sheep cheese. This customer requirement obtained a higher absolute value so we have to say that it's much more needed than the other one. From the improvement matrix we can find out that the producer of product A must pay the biggest attention to innovate and improve appropriate salty taste. The other change that needs to be done is well sharp. As we can see both of this requirements have strong impact on themselves so when we change one, we will also change the other one. We found out that the biggest problem in the customer requirements in the case of product A, was with the taste. We can see that there were no problems with the overall consistency of a sheep cheese. This customer requirement obtained a higher absolute value so we have to say that it's much more

needed than the other one. This means that when the recipe will be changed, even though only slightly, the quality of our product will be increased and so more customer requirements will be satisfied.

CONCLUSION

Quality Planning is an essential part of the Quality Management. Without a proper plan, the companies are risking to make mistakes. When the managers want to avoid risk, they have to set their expected goals and ways how to achieve these quality goals. When speaking about the quality of the product in general, it means the satisfaction of its customers. Therefore, quality planning is also focused on satisfying all of the customer requirements and needs, but also to avoid any costs, which are associated with failures. Paper focused on analyzing quality of selected product with the usage of Quality Planning method. The chosen observed products was bryndza sheep cheese. From the House of Quality matrixes we can see that the most common customer requirements on quality of bryndza were taste, price, color and consistency. The research pointed out that product A should change taste of the sheep cheese in order to satisfy customer requirements.

ACKNOWLEDGMENT

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Overview of the Digitalisation of Banking Services in Albania

Elton Xhafaj¹

ABSTRACT: In line with the global trends, in Albania as well, digitalisation of banking services has become a major strategic goal for banks. Beside the challenges presented by the digital transformation process in itself and the banks' progress in terms of digital maturity, another challenge faced by the banks is the adoption of electronic banking services by the clients. The aim of this study is to present an overview of the digitalisation of banking services of Albania and to try to assess its extent. Interim goals of the study are analysis of the internet access and usage in Albania and its impact on use of electronic banking services, the development of necessary strategies and infrastructure for offering of electronic banking services by the banks, etc. Study results imply that adoption of technologies by some of the banks is lagging behind that of their clients and presumably not meeting their expectations and that in terms of transfer and payments, still it observed that the "digital" amount of these transactions remains significantly low. Such thing is supported also by the results of benchmark analysis where digitalisation of the banking services in Albania is lagging behind that of benchmarked countries despite sharing very similar internet access indicators.

Keywords: digitalisation, banking system, Albania, digital maturity.

JEL: G20, G21, O16.

INTRODUCTION

Consumer behaviour has been changing tremendously during the last two decades and such changes have been shaped by the innovations in technology. One distinct feature of the change is that unfortunately more and more people are preferring to interact with a device or a robot rather than with a person as it used to be done widely during the previous millennium. However, as ironical as it may seem, technology and business drivers are shaping humanity and not the other way around. The general business landscape and especially that of the services sector is changing dramatically, as we are seeing existing players and many new tech start-ups using this change in human behaviour to harvest business benefits.

Banking business is no exception to these trends, as both due to competition within the same kind or with newly arising Fintechs, and due to pressure to meet changing clients' expectations, is struggling to keep its share of financial services market by trying to adjust to these changes. In banking industry, digital banking has become mainstream. The average occurrence of the word "digital" in annual reports of the 20 biggest European banks has increased from 1 to 55 between 2011 and 2016 (Deloitte 2018, Digital Maturity Study).

The aim of this study is to present an overview of the digitalisation of banking services of Albania and to try to assess its extent. To achieve such aim we have developed several

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goals such as: i) analysis of the internet access and usage in Albania and its impact on use of electronic banking services; ii) the development of necessary strategies and infrastructure for offering of electronic banking services by the banks, in view also of the structural changes in the system; iii) the trend of digitalisation of banking services during the last ten years and the clients' approach to such changes; and iv) the assessment of degree of the digitalisation of banking services by using benchmark analysis.

The subject of this study is the digitalisation of the banking system services in Albania, while that its object are the Albanian banks and the banking system as a whole.

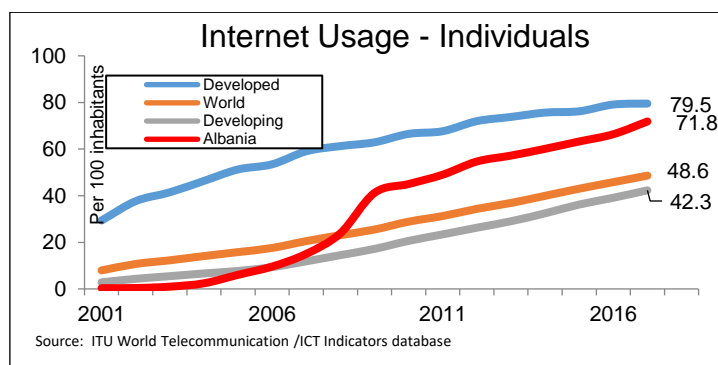
OVERVIEW OF DIGITALISATION OF ALBANIAN BANKING SYSTEM AND ICT LANDSCAPE

Internet Access as a Prerequisite for Electronic Banking Services

Since the late 1980s digitalization in communication and information technology has triggered significant economic changes worldwide, especially in the e-banking business model (Marlin, S. 2005). The fast changes in ICT area have been embraced by the consumer such as wide use of internet, which has affected even more the changes in business models. International Telecommunication Union (ITU) estimates that at the end of 2018, 51.2 % of the global population, or 3.9 billion people, were using the Internet.

Albania's ICT infrastructure has also developed in line with the global trends and the population's access to internet has grown steadily during the last two decades. Referring to ITU data as of end of year 2017, presented in Figure 1, 72 % of the individuals have been using internet, which is slightly below the ratio of 78% in developed countries and well above the one in developing ones which stands at 42.3%.

FIGURE 1
Usage of Internet by Individuals



Similarly, the number of active mobile-broadband subscriptions per 100 inhabitants is 69 for Albania, well below that of the average of developed countries which stands at 103, but

comparably above the average for developing countries at 53. Regarding the fixed-broadband subscriptions per 100 inhabitants, Albania’s ratio is 10, still well below that of developed countries standing at 32 and at par with that of developing countries. Also the broad band speed in the country is more than satisfactory, especially the one offered by mobile operators, which due to the fierce competition in the market has reached outstanding figures, considering the overall infrastructure of ICT in the country. Based on these figures, it is clearly seen that major part of population of Albania has regular access to internet and as a result they can also utilise freely various digital services, including banking ones. Currently in Albania, most banks are offering internet banking and mobile banking services, which are well supported by the country infrastructure as well as consumer access to the infrastructure.

Overview of Albanian Banking System and its Technological Developments

Banking system in Albania has been experiencing changes in the recent years as a result of consolidation of the market through some mergers and acquisitions and increasing presence of locally owned banks (Meka, E., Kadareja, A., 2012). Still the system is being dominated by foreign banks, either through the presence of global or regional banking groups through subsidiaries and branches, or through direct investments of foreign investors or investment funds. Currently there are 13² banks in the market down from 16 just one year ago and this number is expected to be shrank further due to continuing mergers and acquisitions in process. Six of the banks are part of globally renowned banking groups such as Intesa Sanpaolo and Raiffeisen or regional ones such as OTP, Alpha Bank, Procredit, etc.

Overwhelming part of the banks offer online banking, issue both credit and debit cards and have an extended ATM and POS network. Also most of them offer mobile banking, while that few of them have started to offer e-commerce services. This reflects a trend for the banks to develop and enlarge their product/ portfolios, contrary to what happened in most countries during the economic crisis. Table 1 presents an overview of the banking system in terms of offered electronic services as of end of year 2018:

TABLE 1
Offering of electronic services by Albanian banks

	ATM	Debit & Credit Cards	POS	Internet Banking	Mobile Banking	Virtual POS
<i>Number of banks</i>	12	13	7	11	8	3
<i>Percentage</i>	92%	100%	54%	85%	62%	23%

Source: Bank of Albania, Annual Supervision Report 2018.

² After the finalisation of acquisition of NBG Bank and Veneto Bank by ABI Bank and Intesa Sanpaolo Bank Albania, respectively.

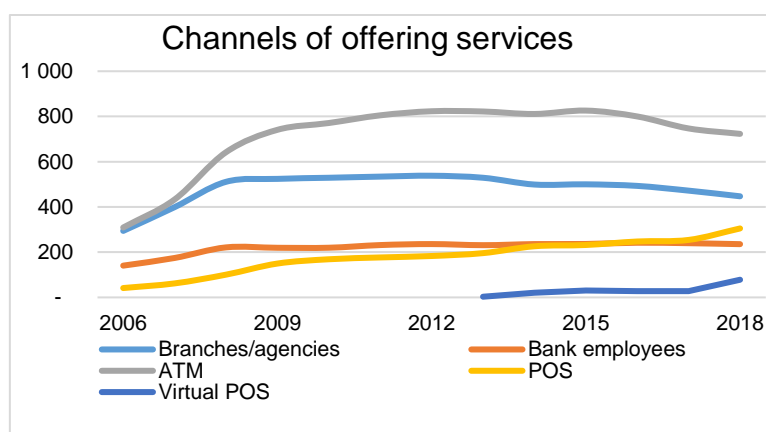
As it can be seen from Table 1, almost all the banks offer ATM and electronic card (both debit and credit) issuing services, while that only seven of them offer POS issuing service.

If we look deeper into the figures, we see that not all the banks offering internet banking are offering mobile banking as well. Given that the ratio of mobile subscriptions with broadband access is around 70% in Albania, which translates in even a higher ratio of bank clients that can access internet and possess smartphones considering the comparably low rate of financial inclusion in the country (World Bank 2017, The Global Findex Database), we deem that adoption of technologies by some of the banks is lagging behind that of their clients and presumably not meeting their expectations.

In order to understand better the developing trends of the channels through which the banks offer their services to the clients, we have analysed the number of bank branches/agencies and employees, as well the number of ATMs, POSs and Virtual POSs for a period of over ten years. It should be noted that during the analysed period the number of banks has decreased from 17 to 14, while that the size of the banking system in terms of total assets has experienced a steady increase.

Figure 2³ clearly shows that the number of POSs and Virtual POSs has been continually increasing every year throughout the examined period. On the other hand it is seen an initial sharp increase in the number of branches/agencies during the period 2006 – 2008 and a slow down after the global financial crisis of 2008 and slight contraction after year 2012.

FIGURE 2
Channels of Offering Services



Source: Bank of Albania and INSTAT.

³ Branches/agencies, ATM and Virtual POS are presented in terms of actual number, while Bank employees and POS are presented in terms of number for 100,000 inhabitants.

The latest slightly decreasing trend in the number of branches/agencies maybe related with the consolidation movements in the market in the last years through mergers and acquisitions, which has stopped the growth strategies of banks. Such argument is supported also by the trend in the number of bank employees, which has been steady and has not shown any decrease in last years. Similar trend as in branches is observed also in the number of ATMs, which clearly shows that ATMs are mostly utilised as side service desk of each branch/agency. During the examined period, the number of ATM per Branch ratio has been increasing continuously from 1.06 to 1.65, however it is still low with less than 2 ATMs per branch. Of course such ratio is differing from bank to bank, however it is evident that still ATMs number is very low and that off-side ATMs are employed in limited numbers by most of the banks. Also, it should be noted that even though that 17% of ATMs have payment and transfer functions, the overwhelming part of ATM transactions still consists in cash withdrawals. Therefore it can be concluded that still ATMs can not be considered as channels for initiating electronic banking transactions.

We have analysed the number of client accounts and the number of those using e-banking services, as well as the number of electronic cards issued by the banks during the period 2008 – 2018. The total number of current accounts has increased significantly during the last decade by almost doubling from around 1.5 million to its peak of around 3.5 million in 2016. Besides, e-banking account number has had a continuous strong increase each year and has increased around 30 times since 2008, reaching to around 400,000 as of end of 2018. It should be noted that the increase has continued to be high throughout the whole decade reflected also by more than a two fold increase during the last 5 years.

Similarly, electronic cards issuing has showed continuous increase during the examined period, dominated mainly by debit cards, whose share even though in steady decrease stands at 85% of total cards as of 2018. Similarly as in ATMs, electronic cards are still mainly utilised for cash withdrawal and deposit. Despite that there is a decreasing share of utilisation of electronic cards for cash transactions reflected in the decrease from 96% to 79% in terms of transaction numbers during the period 2008 – 2018, still such share is very high and consequently as it can be assumed the share of payments with electronic cards remains at low levels.

Based on the above figures and analyses, it is evident that despite negative effects of global financial crisis and domestic developments in the banking system in the last years, banks have continued to invest in alternative channels to reach their clients and electronic payments instruments such as internet banking, ATMs, POSs, issuing of electronic cards, etc.

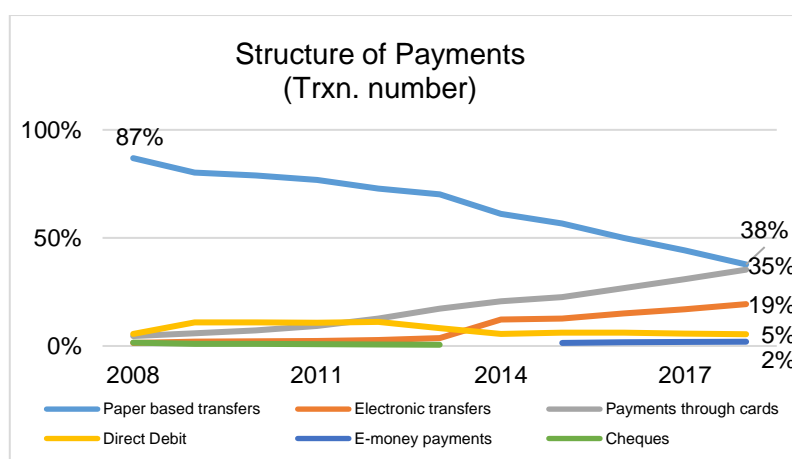
Also, the trend of adopting such channels and instruments by the clients is positive. These developments are a good start in terms of digitalisation of banking services, however, there is place for better alignment of offered services to the clients' readiness in terms of infrastructure and presumably expectations as in the case of mobile banking offerings. Additionally, the banks have not succeeded to translate the continuous extension in the ATMs and POSs network and issuing of electronic cards into conversion of cash transactions to electronic transfer/payment transactions, as the ATMs are not used for transfer/payment transactions and still electronic cards are heavily used for cash withdrawal transactions only.

Development stage of electronic transfer and payment services

When we look at the scope of services offered by the banks through the internet banking platform, it is seen that they are still focused mainly in transfers and payments. Still there is no online service offered related to lending activities, except for the published information and submission of loan applications. In fact the number of banking services that can be performed through internet has continually increased, as banks have extended the functionalities of their online platforms. In many of the banks, clients can perform transfers within the bank, between domestic banks and international ones as well as payment of utilities, various subscriptions, etc.

Based on the above, we may say that when we refer to the actual digitalisation of Albanian banking services, in fact we are referring to the digitalisation of Albanian payment services. For this reason, we have analysed the structure of payments performed through the banking system, in order to understand the extent of digitalisation of payments sector, which in fact is one of the important sectors of a country's economy.

FIGURE 3
Structure of Payments in Terms of Transactions Number



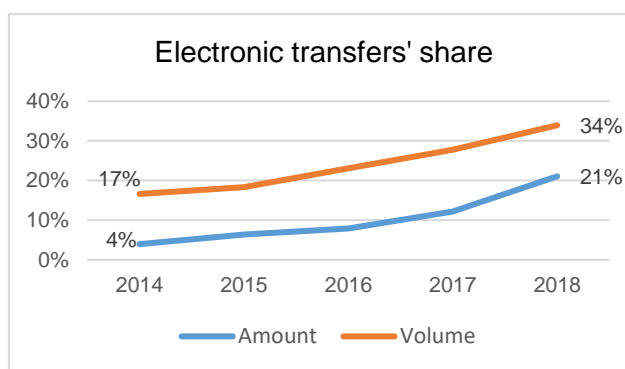
Source: Bank of Albania.

When we examine the number of transfers and payments in the banking system for the last ten years, it is seen that the number of transactions initiated in bank branches/agencies⁴ has remained almost the same as the one in the beginning of the period, while that the total number of transfers and payments has more than doubled. As expected, we see that number of transactions realised through e-banking and electronic cards has increased exponentially during the examined period by more than 32 and 18 folds, respectively.

In terms of share over the total number of transfers and payments, transfers initiated in branches as of end of 2018 account for only 38%, down from 87% ten years ago, while that transfers initiated electronically account for 19% up from 1% ten years ago, and those from electronic cards have risen from 2% to 35% (Figure 3).

On the other hand it is necessary to examine also the trend in performed transactions in terms of amount, as it is not only an indicator about the degree of digitalisation of economy as a whole but it is also an important indicator to understand the trust of clients to such services. Given that due to their nature, electronic card payments are significantly lower than transfers in terms of amount⁵, we have omitted these and have simplified the analysis on only transfers initiated on paper based form and electronic form.

FIGURE 4
Share of electronic transfers over total transfers in terms of transaction amount and volume



Source: Bank of Albania.

From the analysis of the share of electronic transfers over total transfers for the last five years, it is seen that even though there is a considerable gap between analysed indicators (i.e. transaction volume and transaction amount), they both show a similar increasing steady trend, which is a positive sign for the digitalisation of such service (Figure 4). It should also be noted that the gap is constant at 11% throughout the entire period. From further analysis, it is

⁴ In the respective chart presented as paper based transfers.

⁵ Based on 2018 data from Bank of Albania, average transaction amount in Lek is 6,622 for electronic cards payments vs 489,952 for transfers.

observed that the share of individual electronic transfers in terms of transaction volume has increased from 21% to 53%, which shows the increasing trust in this kind of transactions from this client group. Also if we look at the average transaction amount, it is seen a continuous increase by the individuals, while that the businesses continue to perform transactions at similar amounts. If we look at the internet banking platforms established by the banks, we see that most of them offer such service for both business and individual clients, and as mentioned earlier they offer most part of transfer and payment services, and they have allowed high transaction amount limits. However, despite the situation on supply side by the banks, still there is seen slower approach by the business clients, which is affecting considerably the bigger picture, considering their dominant share in total transfers in terms of amount.

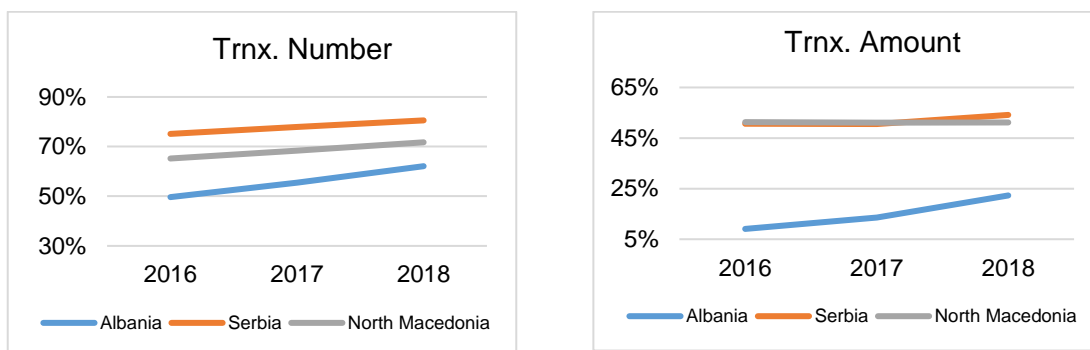
During the last ten years, the volume and amount of transfers and payments performed through e-banking and electronic cards in Albanian banking system has increased continuously and in line with global trends, which is a clear sign of both the willingness and efforts of the banks to channel these services into electronic channels and of the positive clients' approach to such changes, as well as of their evolving digital consumer behaviour (Arango, Huynh & Sabetti, 2011). Despite the considerable overall shifting of the volume of transfers and payments from bank branches to electronic channels (e-banking, electronic cards, etc.) in the last ten years, still it observed that the "digital" amount of these transactions remains significantly low. Both individual and business clients have increased their utilisation of e-banking and are performing continuously increasing number of electronic transfers, however it is observed a clear trend of increasing trust in this channel by individual clients, while that businesses are more reluctant in this regard.

Benchmarking of transfers and payments digitalisation maturity

We have compared the extent of the digitalisation of transfers and payments in Albania with the ones of neighbouring countries that share similar economic development features and HDI level. Based also on the availability of reliable data, we have included in the analysis Serbia and North Macedonia. When selecting these countries we looked also at the respective ICT landscapes in terms of internet access, where it is seen that the percentage of individuals using internet in all countries is quite similar in the last years (i.e. between 70% – 76%, ITU 2018). Both Serbia and North Macedonia show a more advanced development regarding digitalisation of banking services. Share of bank clients using internet banking is much higher in both countries compared to Albania as shown from the share of e-banking accounts over

total current accounts, which as of 2018 stands at 13% for Albania and 22% and 25% for North Macedonia and Serbia, respectively. In the last three years in all the countries such share has an increasing trend and even though the trend of Albania is the steepest one, it still appears difficult that its adoption ratio will catch up with that of the neighbours, at least in the medium term.

FIGURE 5
Utilisation of Alternative Channels for Transfers and Payments for Benchmarked Countries



Source: Bank of Albania, National Bank of Serbia, National Bank of North Macedonia.

Similar as above when we showed the trend of the share of transfers and payments made through alternative channels in terms of transaction volume and amount in Albania, we have compared the same indicators with that of the neighbouring countries for the last three years. In line with the bigger picture, share of digital transactions both in terms of volume and amount is still lower in Albania than in benchmarked countries. However, we observe that the gap between the countries in terms of the number of transactions is much smaller than the one in terms of amounts (Figure 5).

Therefore, it is obvious that the digitalisation of the banking services in Albania, as a reflection of the transfers and payments services, is lagging behind that of benchmarked countries. As per the study conducted by Deloitte mentioned earlier, it is concluded that internet banking penetration is highly correlated with internet access, but it doesn't explain digital maturity. This is the case in our benchmark analysis as well, where it clearly seen that digital maturity of the banks in Albania is lower than that of neighbouring countries, despite sharing very similar internet access indicators as shown earlier in the paper. Additionally, beside the digital maturity of banks, we observe also that the clients' trust in the digital services in Albania is lower than that of their counterparties in the analysed neighbouring countries, which is based on the considerably lower share of digital transfers of Albania and lower share of e-banking accounts compared to that of neighbouring countries.

CONCLUSIONS

In this paper we tried to give an overview of the degree of the digital maturity of the banking system of Albania and of the digitalisation of banking services, with special focus on transfers and payments. Additionally, we tried to analyse also clients' approach and their involvement in utilisation of such services, as an important factor in the success of digital transformation process. Based on the analysis of the data we have concluded that:

Internet access in the country, which is a prerequisite for the development of internet banking and other electronic banking services, is at satisfactory levels compared to that of developed countries and benchmarked ones. However, despite such paved path, adoption of technologies by some of the banks is lagging behind that of their clients and presumably not meeting their expectations, as in the case of providing mobile banking.

The banks have continued to invest in alternative channels to reach their clients and electronic payments instruments such as internet banking, ATMs, POSs, issuing of electronic cards, etc. and the trend of adopting such channels and instruments by the clients is positive. These developments are a good start in terms of digitalisation of banking services, however, the banks have not succeeded to translate the continuous extension in the ATMs and POSs network and issuing of electronic cards into conversion of cash transactions to electronic transfer/payment transactions, as the ATMs are not used for transfer/payment transactions and still electronic cards are heavily used for cash withdrawal transactions only.

During the last ten years, the digitalisation of transfers and payments services has increased continuously and in line with global trends, which is a clear sign of both the willingness and efforts of the banks to digitalise these services and of the clients' positive approach to such changes, as well as of their evolving digital consumer behaviour. Despite the considerable overall shifting of the volume of transfers and payments into digital channels, still it is observed that the "digital" amount of these transactions remains significantly low. It is observed that in last years, individual clients are more eager to utilise e-banking than business ones and it is observed a clear trend of increasing trust in this channel by individual clients, while that businesses are more reluctant in this regard.

Digitalisation of the banking services in Albania is lagging behind that of benchmarked countries despite sharing very similar internet access indicators. Additionally, the clients' trust in the digital services in Albania is lower than that of their counterparties in the analysed neighbouring countries.

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Sustainable Academics' Development – Myths and Realities

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ABSTRACT: Based on the classical concepts of “sustainable development” and its components as: economic, social and environmental developments, this article present the results of a contemporary research facing the challenges of the sustainable academics' development and also its potential and resources development. Using the approach of “Myths and Realities” the aim of the article is to lay the foundation for new discussions and scientific researches in the field of ethical and unethical academics development.

Keywords: ethical academics development, myths, realities, research, sustainable development.

JEL: I21, I23, I25.

INTRODUCTION

Using the concepts of sustainable development I would like to provoke you as a reader of this article and to be sure that these 6 ideas I think of as myths are challenged, and also to suggest to our readers that there surely are at least 60 more such ideas floating around that are not quite as simple as they first seem. Educators and other citizens—particularly those who run our schools—need to be vigilant to sort out myth from fact as they do the best, they can in running a democratic, public education system, as economically and effectively as possible.

According the Wikipedia (Wikipedia, 2019):

Sustainable development is the organizing principle for meeting human development goals while simultaneously sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. ... Sustainable development can be defined as development that meets the needs of the present without compromising the ability of future generations.

And further in (Wikipedia, 2019a)

The Sustainable Development Goals (SDGs) are a collection of 17 global goals set by the United Nations General Assembly in 2015 for the year 2030”.

“Quality Education” is defined under SDG #4.

Addressing the quality of the higher education and academics' development we could insist that sustainable academics' development is and should be an integral part of the education process aimed at practical problems of an interdisciplinary character to build a sense of values and contribute to public wellbeing. The focus should reside mainly in the initiative of the learners and their involvement in action and guided by both the immediate and future subjects of concern.

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In her book (Debowski, 2017) Shelda Debowski suggests that

development can be described as the process of identifying a learning need, identifying and developing new capabilities and approaches and consolidating their application into one's ongoing practice.

And she continues that

the progression from novice to academic leader will be an iterative and ongoing journey that requires evidence of increasingly sophisticated capabilities, skills and knowledge.

University or college and also scientific organizations employees are distinguished as academics, who are directly engaged in the core university functions of teaching and/or research. Usually their roles and responsibilities are diverse, ranging across full or part-time teaching, a mix of teaching and research or, in some scientific institutions (Bulgarian Academy of Science, for example) full-time researching, and/or supporting academics across the university. The different titles they may carry are assistant, chief assistant, assistant professors and professors and they are usually expected to demonstrate a professional teaching and research-informed approach as to contribute to and fulfil their university's mission and responsibilities.

Other authors (Boden, Epstein, Kenway, 2005) state that “academia is a game with unwritten and written rules” but Corcoran and Wals (Corcoran, Wals, 2004) insist that “the major problem for higher education is that it is almost impossible to create a sustainable university in an unsustainable society”.

At the same time the concept of sustainability is becoming an integral part of government and universities. The Bulgarian (Strategy 2014-2020) and other EU governments, universities and many others scientific institutions around the world are re-thinking their academic missions and are looking to restructure their strategies, their curricula and research projects.

But referencing the same Internet source (Wikipedia, 2019 b) we should pay attention that:

The concept of sustainable development has been, and still is, subject to criticism, including the question of what is to be sustained in sustainable development. It has been argued that there is no such thing as a sustainable use of a non-renewable resource, since any positive rate of exploitation will eventually lead to the exhaustion of earth's finite stock;[2]:13 this perspective renders the Industrial Revolution as a whole unsustainable.

Applying the concept of professional scepticism, Tricia Gallant (Gallant, 2011) “opens the closed study doors” to the possible “dark side” of the sustainable academics' development claiming that:

For those who believe in the promise of higher education to shape a better future, this may be a time of unprecedented despair. Stories of students regularly cheating in their classes, admissions officers bending the rules for VIPs, faculty fudging research data, and presidents plagiarizing seem more rampant than ever before. If those associated with our institutions of higher learning cannot resist ethical corruption, what hope do we have for an ethical society?

There are also many authors and researchers with their publications (Wilson, Stevenson, 2019), (Corcoran P. B, Wals A., 2004), (Boden, Epstein, Kenway, 2005) who focus on the contemporary issues accompanying the desire to sustainable development in higher education and academic career.

As regarding the myths and realities in higher education there are also many authors (Murray, 1959), (Eliade, 1963), (Berliner, Glass, 1995), (Morine-Dershimer G., Huffman-Joley G., 2000), (Christodoulou, 2014), (Berliner D., Biddle B., 1995), (Berliner D., Glass G., 2014) who use the approach based on myths and exposing realities as authentic way to challenge the current issues and problems in the higher education.

In this article we use the ideas of a myth and the realities as the organizing principles and as a springboard for analysis of academics' development and its activities as teaching, learning, practice, developing theory and research across a range of educational and cultural contexts.

According Henry Murray (Murray, 1959) the word "myth" is subject to many variants and often opposing definitions, in particular as it is applied to the products of modern man's imagination."

The Oxford definition of myth we use in this article encompasses the following meanings:

2. A widely held but false belief or idea.
 - 2.1. A misrepresentation of the truth.
 - 2.2. A fictitious or imaginary person or thing
 - 2.3. An exaggerated or idealized conception of a person or thing.

Mircea Eliade (Eliade, 1963) states, that

It would be hard to find a definition of myth that would be acceptable to all scholars and at the same time intelligible to nonspecialists...All myths contain a part of truth! Or are partly true! What the truth means – is another subject for discussions!

This article endeavors to point to a reality of which scientific theory has revealed only one aspect. It is the commitment to this reality that lends universal intent to a scientist's most original and solitary thought.

Many people confuse what universities *are* with what they *would like* universities to be. They condemn the current status of autonomy of universities because they are afraid that the graduates they produce are and will not be ready for the twenty-first century, will find

they are not able to compete in the global marketplace, or will not be able to respond to the needs of small firms and corporations in the future. Such worries are difficult to address, even using our approach “myths-realities” since it is not easy to predict the future clearly.

Let’s continue applying the approach of “myths-realities” for the sustainable academics’ development.

Myth 1: Governmental financing is not sufficient for adequate academics’ development.

The Reality 1: Many academics’ rectors from Bulgarian universities and other countries will state that this is a true statement. And it is true, that globally, universities are reliant on public funding. Downward pressure on public expenditure means that universities’ financial resources are tightly squeezed. Consequently, definitions such as ‘budgeting’, ‘cost cutting’, ‘accountability’ and ‘performance indicators’ have become ubiquitous, powerful drivers of institutional behaviour and academic work.

An analysis of the PISA (OCEF, 2012) data shows that it is not always the countries that spend most on education that achieve the best results. The 2014 report showed that there has been essentially no correlation between what governments have spent on education and their measured academic outcomes. But bearing in mind our earlier comments about myths and beliefs, this may be because different countries have different needs, different educational systems and different educational policies, for university autonomy, for example.

The OECD concluded, based on the PISA (Program for International Student Assessment) data, that greater national wealth or higher expenditure on education does not guarantee better student performance. Among high-income economies, the amount spent on education is less important than how those resources are used.

Benedict Clements concluded that about 25% of education spending in the European Union is wasteful relative to the “best practices” observed by the OECD (Clemens, 2002). Of course, it is important to know what is meant by “academic return”. Does it mean cognitive results or does it mean students well-being? It could be either or it could be both, depending on the circumstances. The correlation “more money equals better education” has by no means no sufficient empirical evidence support, and there is a need for further research at the macro level, the level of higher education policy and outcomes.

Spending more money in education can have a great positive impact when used wisely applying modern economical, effective and efficient approaches.

More money could deliver better education, but it is not the amount of money that counts, it's what you do with it! Money alone cannot buy a good education system. It is essential to believe and to act on the belief that all students can succeed in university.

Shortly, more money doesn't always mean better education!

Myth 2: *Teachers in Bulgaria and other countries are well paid, salaries are increasing continually and stimulate academics development adequately.*

The Reality 2: The author of this article will try to assure you that this statement is NOT true! For example, after 33 years academic career and being an associate professor at one of the largest universities in Bulgaria, the basic salary is about \$ 750 U.S and for being a professor – the salary is about \$1000 U.S.

Some critics, of course, will justify my and other academics' relatively lower wages as appropriate, given the flexibility and additional vacation time often built into the schedules of the universities.

According Morine-Dershimer and Huffman-Joley

university rewards of promotion, tenure, and merit salary increases usually were tied to research and service in a field of study honored and recognized by the academy, which often appeared to have little application for society at large. (Morine-Dershimer, G., Huffman-Joley G., 2000)

Recently the Bulgarian Minister of Education and Science K. Valchev (MON, July 5, 2019) spoke about different inequalities in education.

A large part of young teachers is lost because the schools themselves use a wage-setting model oriented towards the elderly. Up to 2.6 times is the difference between the lowest and the highest salaries in higher education institutions, the minister said, while in the system of secondary education this difference was 1.5 times. In the amendments to the Higher Education Act there is a text for the setting of a minimum salary for a teaching position in the universities, which refers to the lowest teaching position.

According OECD teacher salary data and other measures of compensation in the United States and more than 35 member countries in the Organisation for Economic Co-operation and Development (OECD) indicate that the average American teacher with more than 15 years of experience earns an annual salary of between \$45,050 and \$48,450 U.S. depending on whether he or she teaches at the primary, lower secondary, or upper secondary level (OECD, 2012).

Teachers and academics' in most OECD countries, including the United States, earn higher wages based on their years of experience and the grade level that they teach; however, the top salaries and length of time required to reach those levels of pay vary considerably by country (OECD, 2012).

Myth 3: *The promotion and remunerations of academic teachers are based on the teaching assessment results.*

The Reality 3: Our desire is this statement to be true or just partly true. But for the last two decades academia around the world has accepted so called “publish or perish” (POP) model which is widely used for academic’s outcomes assessment.

In the Oxford Dictionary of Idioms,

‘publish or perish’ is used to refer to an attitude or practice existing within academic institutions, whereby researchers are under pressure to publish material in order to retain their positions or to be deemed successful.

The reality is that academics who do not comply with the POP stipulation perish, in the sense of not finding jobs or losing existing jobs. At best, the perish part is denial of promotion and the requirement of assuming a heavy teaching load while under the threat of termination.

This model is an application of so called “The Anglo-American model” which recognizes the research productivity as conducive to economic competitiveness and was introduced by The Bulgarian Ministry of Education and Science with new amendments of Law on the development of Academic Staff recently. This law defined new compulsory requirements for awarding PhDs, professorships, and tenures for all state and private universities. (Law on the Development of Academic Staff, amended 2018).

‘Publish or perish’ (POP) is a phrase that describes the pressure put on academics to publish in scholarly journals rapidly and continually as a condition for employment (finding a job), promotion, and even maintaining one’s job.

In fact, academics conduct research not to benefit the society but to get their names in journals, preferably top journals – and no one can blame them for that as they have to follow the rules of the game or else perish. Under POP model, the objectives change from advancing society to advancing (or preserving) oneself by building an ‘impressive’ CV containing 120 publications per year, for example.

But what was the situation in the world around?

Dragan Djuric (Djuric, 2015) discusses the academic setting in Serbia after 2007 when state universities began requiring publication in journals having Thomson Reuters (TR) Journal Impact Factors for completion of a PhD or promotion.

In China, for example, Tian, Su and Ru (2016) argue that his country has followed the Anglo-American model as the Chinese government has decided to boost research expenditure, leading to competition for government funding amongst Chinese universities. As a result,

Chinese universities are putting great pressure on their staff to publish in journals appearing in the Science Citation Index (SCI) and Social Science Citation Index (SSCI).

Myth 4: Bulgarian teachers in academia are well trained and pedagogically proficient.

The Reality 4: Applying the sustainability concept, we will insist that teaching is not just about the transfer of knowledge; it's also about being able to guide students to develop their own knowledge, skills, attitudes, and beliefs. And even if it were solely about the transfer of knowledge, not everyone knows how to transfer knowledge well.

Not all nations around the world require preservice university teachers to take courses on pedagogy, emphasizing teaching or instructional skills appropriate for different age groups, alongside courses for learning content knowledge in depth. No one will probably say that teaching skills are not necessary for university teachers to be chosen and then to apply the important concepts in a particular subject area, create a learning environment where students feel comfortable and competent, and to develop the mindsets of students that are required in order to learn x or z at a high level.

The German researcher Erich Leitner (Leitner, 1998) takes note of relationship between the pedagogical qualification of teaching staff members in higher education and the quality of teaching and learning, cited in the title of this article, is a result of the assumption that academic pedagogy, especially the pedagogical training and in-service training of academic staff members, make an essential contribution to the quality of teaching.

He provides empirical evidence that the universities in the German-speaking countries then are still far from having set up an extensive system of practical academic pedagogy in order to ensure and to enhance the quality of teaching. And he makes a reference to the work of Wolff-Dietrich Webler who gave the following description of the situation in Germany: "There is no ... systematic professional training for academic teaching, counselling, and examination" (Webler, 1997).

Following a survey of European efforts, particularly in the Slovenia, Katarina Askerc and Sebastian Kocar reported

...that university teachers attribute significant importance to pedagogical work (the term used in Slovenian higher education legislation), yet nearly half of them had never been involved in any kind of pedagogical courses." (Askerc, Kocar, 2015)

Unfortunately, my 33 years of experience show that the situation in Bulgarian universities is similar to the described above and what is needed should be discussed in timely manner.

Myth 5: *The scientometric indicators provide a real assessment of the academics' development.*

The Reality 5: Many governments around the world (Serbian, Romanian, Chinese, EU countries, for example) and respectively Bulgarian universities since 2016 have introduced performance metrics, with research acting as a proxy for academic performance, thereby increasing the pressure to be research active.

As we in Bulgaria felt the need of researches about the scientific return of accepting these performance indicators, I made a quick survey about the critics of this quantitative and qualitative measures.

According the accepted scientometric indicators, academics' research output is evaluated by a combination of quantity which means that the number of research articles published and quality, where quality is typically measured by the status of the journal in which the research is published. The widely accepted opinion is that four approaches have been used to rank academic journals in terms of the elusive term 'quality'. These approaches could be described as (1) citation-based ranking, (2) opinion-based ranking, (3) market-based ranking, and (4) download frequency-based ranking. Each one of these approaches has its weaknesses, making the process of ranking or classifying journals rather hazardous with adverse unintended consequences.

Let's begin with the impact factor (IF).

The impact factor (IF) is the most widely used measure of the quality of journals. The IF, which is published annually in Thomson Reuters' Journal Citation Report (JCR), was developed in the 1960s by Eugene Garfield and Irving Sher (Garfield, 2006). It is calculated as the average number of times papers from the underlying journal published in the past two years have been cited in the JCR and the IF is calculated by dividing the number of citations appearing in the JCR by the total number of papers published in the previous two years.

It is important to notice here that the IF has the following disadvantages: bias towards US journals, bias against non-English-language journals, vulnerability to manipulation, and providing no insight into individual articles.

As an alternative to the IF, Jacob E. Hirsch (2005, 2007) proposed the h-index. According to him an h-index of h means that the author (or journal) has h papers that have been cited at least h times each. The papers included in the h-index are called the 'h core' or 'Hirsch core'.

Not a long time after Hirsch's statements, Anne-Wil Harzing (2008a) argues that the h-index has several advantages over the IF: (1) the h-index does not have a fixed time horizon;

(2) it attenuates the impact of one highly cited article because it is not based on mean scores; and (3) a journal that publishes a larger number of papers has a higher likelihood of generating a higher h-index, which is an advantage when the objective is to measure the impact on the field. They also suggest reasons for the divergence between the h-index and the IF.

Using citations to determine the quality of a journal must mean that citations represent quality, but the link between citations and quality is not recognized universally. For example, Philip G. Altbach (2006) suggests that ‘the correlation between citation frequency and quality is unclear’. The OECD (2010) also contends that citation counts may pertain as much to communication structures and professional networks as to quality, which means that deriving and interpreting citation data raises technical challenges.

Referencing the above publications, it is become not clear if there is a difference between impact and quality (or status). However, they dispute the reliability of citations as a measure of quality as opposed to impact. Quality may be measured in terms of the local significance and contribution to the society, but this is also impact. The difference seems to be trivial, perhaps coming from the term ‘impact factor’. But then there is the distinction between the impact factor and the impact index.

The impact index is the same as the impact factor, except that it also takes into account journals not included in the Web of Science. If the impact index actually exists, it would be useful for assessing and classifying journals that are not included in the Web of Science, but it is irrelevant for the distinction between quality and impact.

The reality is difficult to make clear what measures to be chosen and why to do it in any specific case!

Myth 6: *Sustainable academics’ development is based on academic integrity.*

The Reality 6: To be continued...Or we hope that this statement will provoke different points of view in further researches, discussions and discussions.

CONCLUSION

Sustainable academics’ development is a very important part of achieving the SDG #4 “Quality Education”. The academic teachers and researchers know very well that it is not easy to change things in education and especially in higher education. If you introduce something new, it is often possible to achieve initial success. But initial success is, in itself, not enough. The approach in this article using the fabula of myths and realities was adopted as our

conviction that these myths are one of the major factors standing in the way of innovation and renewal exposing the realities at the same time.

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Accounting Education in a Sustainable Development Context

Michael Musov¹

ABSTRACT: The need for sustainable development is one of the key driving forces of the rapid changes and numerous challenges in today's economic world. Sustainable development agenda has many directions, but if to be effective in the long run, they all need to start with adequate reforms in the classroom, i.e. with finding appropriate ways to put curricula in a sustainable development context.

Putting accounting education in the context of sustainable development is logically possible. This is because those two educational models – for the accounting profession and for the sustainable development – have to develop in students one and the same competencies. For example, accounting educational model requires the integrated development of three meta-competencies: (1) authentic styles of thinking and reasoning in a multidimensional mode, (2) authentic styles of creative and responsible actions, and (3) authentic styles of reciprocal social interactions. These three meta-competencies are especially pertinent to the education for sustainable development where the educational model, more than any other, requires the integrated development of relevant thinking skills, skills for actions to change any unacceptable status quo, and strong social sensibility. The only problem to put accounting education in a sustainable development context is to find an appropriate way to do it.

This paper aims to explore the potential of the dialogic (problem-posing) education – developed by Freire in the 1960s – to reform accounting education exploring it into the context of sustainable development. The first section provides a brief overview of the dialogic education. The second section discusses the stages and elements in the development of a dialogical education model. The third section explores the classroom application of dialogic education in an undergraduate accounting course, taught at Strathclyde University in Scotland. The fourth section summarizes important recommendations for introducing dialogical education principles in accounting education exploring it in the context of sustainable development.

Keywords: dialogic education, accounting higher education, sustainable development.

JEL: M40, I23, I25.

INTRODUCTION

The world has never been so dynamic, and it is not hard to appreciate that changes have never been so fast. What is needed is to look back as it was done by two NASA-scientists in the mid-1960s. They remarked that

eight hundred lifespans can bridge more than 50,000 years. But of these 800 people, 650 spent their lives in caves or worse; only the last 70 had any truly effective means of communicating with one another; only the last 6 ever saw a printed word or had any real means of measuring heat or cold; only the last 4 could measure time with any precision; only the last 2 used an electric motor; and the vast majority of the items that make up our material world were developed within the lifespan of the 800th person. (Leshner and Howick, 1966, pp. 9–10)

Among the key driving forces of these rapid changes and the numerous challenges they create in the today's economic world – the world of the 800th person – are not only the economic globalization and the information technologies (internet included), but also the need

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for sustainable development. That development – integrating the environmental, social, and economic aspect of sustainability – requires each and every organization to be involved. Without sustainable development there may be local wealth creation, there may be even regional well-being, but there is no global prosperity. For example, in the coming decade, the U.S. economy is expected to incur economic losses from climate change and health costs caused by fossil fuel use equal to half of the economic growth (Universal Ecological Fund, 2017). Sustainable development agenda has many directions, but if to be effective in the long run, they all need to start with adequate reforms in the classroom, i.e. with finding appropriate ways to put curricula in a sustainable development context.

Fortunately, putting accounting higher education in the context of sustainable development is logically possible. This is because those two educational models – for the accounting profession and for the sustainable development – have to develop in students one and the same competencies. For example, accounting educational model requires the integrated development of three meta-competencies: (1) authentic styles of thinking and reasoning in a multidimensional mode, (2) authentic styles of creative and responsible actions, and (3) authentic styles of reciprocal social interactions (Musov, 2017). These three meta-competencies are especially pertinent to the education for sustainable development where the educational model, more than any other, requires the integrated development of relevant thinking skills, skills for actions to change any unacceptable status quo, and strong social sensibility. First, in order to be aware of the problems of sustainable development, students should be able to think using different and mutually incompatible perspectives and to be engaged with self-reflective questions of personal meaning, value, and commitment. Second, having in mind the need to change the status-quo, gaining understanding about the problems is not enough – students need to enhance their ability to act for the creative transformation of reality. Third, all human thoughts and actions happen within the framework of social interactions, that, in turn, implies fostering not only the competencies for working with others, but merely forming social sensibility to the needs of the future generations. The only problem to put accounting education in a sustainable development context is to find the way to do it.

This paper aims to explore the potential of the dialogic (problem-posing) education – developed by Freire (2005 [1968]) – to reform accounting education exploring it in the context of sustainable development. To this aim, the first section provides a brief overview of the dialogic education. The second section discusses the stages and elements in the development of a dialogical education model. The third section explores the classroom application of dialogic education in an undergraduate accounting course, taught at University

of Strathclyde in Scotland. The fourth section summarizes important recommendations for introducing dialogical education principles in accounting, education exploring it in the context of sustainable development.

DIALOGIC EDUCATION – AN OVERVIEW

Freire's (2005 [1968]) dialogic education is a pedagogical approach directed toward humanization of the educational process. It is strongly influenced by phenomenological philosophy. Although widely known around the globe, in South and Eastern Europe this pedagogical approach remains unpopular.

The principles of dialogic education could be best understood when compared to the traditional model of education. What traditional education implies is that teachers deposit in students knowledge about reality that is “motionless, static, compartmentalized, and predictable”, which students “patiently receive, memorize, and repeat” (Freire, 2005 [1968], p. 71, p. 72). This conventional educational approach “inhibits creativity and domesticates ... the *intentionality* of consciousness, by isolating consciousness from the world, thereby denying people their ontological and historical vocation of becoming more fully human” [original emphasis] (Freire, 2005 [1968], pp. 83–84).

In contrast, the role of dialogic education is not to transmit some static knowledge to some passive subjects in order to adapt them to existing reality. Dialogic education “bases itself on creativity and stimulates true reflection and action upon reality” and affirms students “as beings in the process of *becoming* – as unfinished, uncompleted beings in and with a likewise unfinished reality” [original emphasis] (Freire, 2005 [1968], p. 84). In other words, dialogic education provides the means by which

people develop their power to perceive critically *the way they exist* in the world *with which* and *in which* they find themselves; they come to see the world not as a static reality, but as a reality in progress, in transformation.... [T]he form of action they adopt is to a large extent a function of how they perceive themselves in the world. [original emphasis] (Freire, 2005 [1968], p. 83)

A careful observer may draw two conclusions. First, the reflection always considers people in their relations in and with the world. Second, this reflection – aimed at transforming the status quo under consideration, but not adapting to it – is inseparable from the resulting actions people undertake to achieve the change.

THE PROCESS OF DIALOGIC EDUCATION – STAGES AND ELEMENTS

Incorporating the values of dialogic education requires an understanding of its basic stages and elements. A study² by Thomson and Bebbington (2004) reveals the following three-stage structure of the dialogical education process:

- first stage – determination of the content of the educational program, that relates to analysis of the limit situation (or the problem in the society);
- second stage – design of the nature of the educational process, that includes planning a series of dialogical encounters and
- third stage – action process, that by definition aims transformation of the status quo.

Dialogical encounters are the cornerstone of all three stages. They, as Thomson and Bebbington (2004) correctly observe, has a cyclical nature. The first step is to identify limit situation (the problem), to recognize some of the key contradictions (or obstacles) and to codify them. Codifications are interactive representations of key elements of the limit situation using various means (e.g., pictures, videos, diagrams, texts, oral presentations, etc.). The next step is to present these codifications to others in the group and to receive others codifications. Thus, the group discusses and decodes many different viewpoints and codifications of one and the same limit situation. What follows are students' suggestions about possible actions for solving the problem under consideration and teacher's representation of individual responses as new problems. That problematization lead to new processes of (re)codifications/decoding until the problem will be finally solved or at least redefined.

Each of the three stages of the dialogical education process has its specific elements. Table 1 provides a brief overview.

Thomson and Bebbington (2004) also discuss some universal techniques that support the incorporation of elements of dialogic education. They represent their teaching experiments and experiences grouped by the stages of the educational process. Within the first stage – the determination of the educational program – the following techniques are suggested: allowing some degree of students' input into the program design (e.g. students from the previous year prepare cases for the next years class); leaving some degree of students' choice (e.g. students self-determine their essay topics or self-design their empirical projects based on their personal

² Thomson and Bebbington (2004, p. 627) draw on the following reformed or semi-reformed accounting courses: at the University of Strathclyde – “Value Theories”, “Management Decision Making and Control”, “Advanced Management Accounting”, “Planning and Control Systems”, “Accounting Research Methodology”, “Accounting and Sustainability”, “Public Sector Accounting”, “Accounting and Risk”, and at the University of Aberdeen – “Introductory Financial Accounting”, “Social and Environmental Accounting”, “Cases in Accounting/Integrative Studies in Accounting”, “Dissertation in Accounting”.

interests); increasing contacts between students and faculties on learning issues, etc. Within the second stage – the educational process – the following techniques encouraging dialogic education may be used: introducing case studies that avoid lectures and prescriptive solutions, adopting flexibility in communication and assessment, discussing different case solutions that are occasionally grounded in students' direct experience (e.g. students may draw on their experience at school when discussing issues of performance measurement or they may provide the journal entries which organizations would have made for the transactions the student was involved over a certain period); encouraging flexibility and diversity in achieving compliance (e.g. students may use various approaches to cover certain learning outcomes – mind maps instead of academic essays, alternative presentation devices, etc.). Within the third stage – the action process – Thomson and Bebbington (2004) encourage the use of empirical research projects, which require students to gather information, talk with interested parties, and reflect upon the problem while drawing on their own life experience.

TABLE 1
Problems and Elements of Dialogic Education

Stages	Elements
Determination of the context of the program	<ul style="list-style-type: none"> ▪ Teacher-student relationship. Build mutual trust and understanding between teacher and students. ▪ Awareness of student experience. Become aware of the life experiences of the students. ▪ Program presentation. Justify the aims and methods of the educational process to students. ▪ Students inclusiveness. Include students in designing the content, teaching strategies and assessment methods.
Design of the educational process	<ul style="list-style-type: none"> ▪ General. Encourage a transdisciplinary approach to the problems. Improve the class continuously. ▪ Identification of the limit situation and the possible solutions. Identify and discuss the current limit situations – the contradictions, obstacles and opportunities. Identify and investigate previously untested solutions. ▪ (Re)codifications. Encourage the selection of key contradictions to develop codifications of the situation. Foster diversity of the means students use to codify and represent the outcome of their investigations to the class. ▪ Decoding. Listen to, reflect and reconsider codifications/representations of others in the group meetings. Problematize the proposed responses. ▪ Revision of the limit situation. Redefine the understanding of the situation/problem of concern. ▪ Problematization of feasible solutions. Identify and problematize the proposed solutions for a subsequent recodifying-decoding process. Repeat the process.
Action process	<ul style="list-style-type: none"> ▪ Reflection and action. Build in and integrate reflection and action into the class program.

Source: Based on Thomson and Bebbington (2004, p. 616, pp. 625–627).

What is crucial here is that the incorporation of elements of dialogic education may be a gradual process. This is also the suggestion of Thomson and Bebbington (2004). The more are the elements of dialogic education and the better they are integrated, the more dialogic will be the education and the greater the benefits – for the students and the wider society.

DIALOGIC EDUCATION IN ACTION

An excellent example of a course in the field of accounting and sustainable development that incorporates elements of Freire's dialogic education was presented in detail in Coulson and Thomson (2006). The authors describe the "Accounting and Sustainability" course that is offered in the last year of the undergraduate Accounting degree program at Strathclyde University in Scotland.

The main learning device in this course is a group collaborative project to produce a shadow account on a major U.K. supermarket company.³ This project engages students in various activities which are implemented in a series of iteration cycles aligned with the values of dialogic education. The course starts with meetings at which the project is outlined. Afterwards, students are asked to undertake some research activities and to collect preliminary information on the entity's vision. This information is then presented to the class "forming the basis for class discussion, reflection, decoding and then recodify into a richer collective representation" of the entity and its sustainability (Coulson and Thomson, 2006, p. 265). The whole process is repeated twice more, but with a shift in focus – from entities' vision towards its organizational activities and further to its performance reporting. This move back and forth between the research activities (where students are focused on specific aspects of entity's sustainability) and the group discussions (where students are exposed to the specific findings of the others) is what allows the construction of shared meaning and knowledge, i.e. the collective learning process. Finally, a coherent collective shadow account is elaborated and presented. At the end of the course comes the other crucial element of the pedagogy. It is a reflective essay in which each student is required to critically reflect on his/her own learning experience gained within this group project.

The issues of assessment seem to be the most problematic part of the design of the course because the modes of assessment aligned with the values of dialogic education are not in line with the accreditation process. Avoiding any contradictions with the legal and institutional requirements Coulson and Thomson (2006) have success in integrating

³ *Shadow accounts* refer to social and environmental reports that are drawn up from information in the public domain (Gray, 1997).

assessment with the action and reflection elements of the class. While recognizing the importance of some conventional academic attributes (e.g. literature usage, writing quality, reasoning, etc.), their assessment strategy rewards also the following dialogical outcomes: innovative/creative thinking, integrating knowledge from non-accounting courses, participating in group discussions, challenging traditional theories, using alternative methods of presenting the codifications, etc. Intentionally, some elements of the course are left unassessed.⁴

RECOMMENDATIONS

Although Coulson and Thomson (2006, p. 262) describe this course as being “weak dialogic”, they find that it is an effective strategy in rising students’ awareness on the multi-faceted aspects of sustainability and on the role of accounting in social and environmental impact management. The lessons learned from their experience, that could be used to incorporate elements of dialogic education in other courses in accounting and in sustainable development, could be summarized in eight directions. These directions follow Stark and Lattuca’s (1997, pp. 9–16) eight elements of the curriculum – purposes, content, sequence, learners, instructional resources, instructional processes, assessment and evaluation, and adjustment.

First, regarding the purposes of education, purposes should be focused on exploring meaning and creating capacity for creative transformation of reality.

Second, regarding the content of the educational process, courses should engage students with issues that help them, on the one hand, create meaning with regards to the profession and the world as well as a sense of personal identity, and, on the other hand, include elements of action that provoke students’ creativity.

Third, regarding the sequence, educational process should be based on the cyclical nature of the dialogical encounters.

Fourth, regarding the learners, the educational process should be clearly structured and actively managed, but students have to be aware of the purposes of the course and of the structured time and space for reflection and action, as well as, of their freedom to provide new ideas and to react to the ideas of the others.

Fifth, regarding the instructional resources, a number of innovative class activities could be used. They may draw on (but are not limited to) students’ personal experience, posters, videos, books, and legal documents.

⁴ See https://www.strath.ac.uk/media/departments/accountingfinance/outlines/AG409_Class_outline.pdf for detailed information about the course – entitled now “Sustainability Accounting: Theory and Practice” – for the just completed 2018/2019 academic year.

Sixth, regarding the instructional processes, the role of the lecturer shifts towards that of a facilitator of the collective learning process; the teacher has to problematize the situation under consideration and to encourage students' active participation in the learning experience.

Seventh, regarding the assessment and evaluation, the assessment methods should correspond to the values of dialogic education, but not only follow the legal restrictions and the institutional requirements. Dialogical features have to be appropriately rewarded.

Eighth, regarding the adjustment, continuous improvements should be an integral part of the elements of dialogic education.

CONCLUSION

Freire's dialogic education develops the unity of thinking and acting in order to create the capacity for transformation of certain unacceptable aspects of reality – social, economic or environmental – and as such has the potential to contribute to reforming accounting education exploring it in a sustainable development context. Moreover, this change will be quite significant as the principles and values of dialogic education make key improvements in every element of the accounting curriculum.

Putting accounting higher education in the context of sustainable development will be beneficial not only for advancing the sustainable development agenda, but also for the future of accounting education and the accounting profession beyond the world of the 800th person. This is because it will make the role of accounting in the wider society more visible in the classroom and understanding that role is nothing but the fundamental premise on which the educational preparation of future accountants should rest (Pathways Commission, 2012).

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Mapping the Role of Education in Eastern Partnership Under the SDGs Lens

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ABSTRACT: The Sustainable Development Goals (SDGs) attribute great importance to education, which is regarded as an instrument for sociopolitical reform and economic development. For similar reasons, education attracts the attention of supranational entities, such as the European Union (EU), that include education-related initiatives in their policy agenda. The paper focuses on Eastern Partnership (EaP) and discusses its bilateral action programmes in the field of education under the SDGs lens. Eastern Partnership constitutes a dimension of the European Neighbourhood Policy (ENP), which was introduced in order to develop a policy framework that would reinforce the relations of the European Union and of its member states with their Eastern and Southern neighbouring countries. The Eastern Partnership includes six countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine). The paper provides an overview of bilateral action programmes in the field of education in the particular countries as provided by the EaP framework. It presents the general institutional foundations and the funding provisions regarding the implementation of selected programmes. Also, it analyses the priorities, the objectives and the organisational characteristics of the education-related EaP programmes. These programmes have a strong positive impact on the development of the skills and competences of the countries' populations, while they are usually combined with initiatives concerning employment and culture. The paper approaches the EaP projects critically in an attempt to designate their ability to foster the developmental vision that is promoted by the SDGs.

Keywords: development, Eastern partnership, education, European Neighbourhood Policy, SDGs.

JEL: I25, I28, J24, I22, I24.

INTRODUCTION

The interest of the European Union (EU) to enhance its political, economic, social and cultural relations with countries lying to the east and to the south of Europe was expressed through the introduction of the European Neighborhood Policy (ENP) in 2004. The ENP encourages the development of closer cooperation with the neighbouring countries in order that the European Union is able to exercise more decisive roles and to contribute to greater stability and well-being in the broader region. The ENP includes 16 countries and comprises two policy streams: the Eastern Partnership (EaP) with 6 countries and the ENP-South with 10 countries.

The paper focuses on the action programmes organized by the EU in collaboration with the countries of the Eastern Partnership and attempts to provide an overview of their education-oriented components under the SDGs lens. The paper analyses the basic characteristics of the EaP policy agenda and presents its principal operational and financial aspects. Also, it discusses the organisational and the financial components of the EaP bilateral

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action programmes concerning the field of education and training, comments on their content and objectives, and attempts to associate them with the SDGs. Finally, the paper concludes by highlighting potential challenges regarding their ability to foster the developmental vision of the SDGs.

THE DEVELOPMENT OF ENP IN THE EUROPEAN POLICY AGENDA

The European Neighborhood Policy (ENP) is a European initiative that seeks the development of a stronger and multilevel –mainly political and economic– cooperation between the EU and its neighbouring countries to the south and to the east. It comprises two different streams: the Eastern Partnership, which involves the EU and six Eastern European Partners (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) and the ENP-South with ten partner countries (Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Palestine, Tunisia).

The 2004 enlargement reshaped Europe and set new political, economic and social goals regarding the relations of the EU with its neighbouring countries (Commission of the European Communities, 2003a; Wesselink & Boschma, 2012, pp. 7-8). The EU introduced a unified policy framework, which highlighted the importance of strong partnerships with multiple objectives: “to increase our mutual production, economic growth and external trade, to create an enlarged area of political stability and functioning rule of law, and to foster the mutual exchange of human capital, ideas, knowledge and culture”. Moreover, the creation of closer relationships between the EU and its neighbours was expected “to promote stability and prosperity within and beyond the new borders” and “to develop a zone of prosperity and a friendly neighbourhood – a ‘ring of friends’ - with whom the EU enjoys close, peaceful and co-operative relations” (European Commission, 2003b, pp. 3-4). The ENP would be implemented through action programmes in different policy areas, which should build on existing experience and on the arising needs, incite synergies and set out the strategic policy targets and benchmarks for a number of years, whose progress would be monitored and assessed (European Commission, 2003b, pp. 15-16). Finally, the EU highlighted the need for a new Neighbourhood Instrument and for special budgetary provisions, while it described the relevant processes (European Commission, 2003b, pp. 17-18). The new Neighbourhood Instrument should ensure the operational feasibility and coherence, and the financial support for projects with a particular focus on promoting sustainable socioeconomic development and addressing common environmental, security or health challenges not only on a “country/EU-

to-country”, but also on a “people-to-people” basis (Commission of the European Communities, 2003a, pp. 5-6).

The Treaty of Lisbon (2007, Art. 8) gave a new impetus to ENP by regarding it as a means for the establishment of “an area of prosperity and good neighbourliness, founded on the values of the Union and characterised by close and peaceful relations based on cooperation”, while it defined the conclusion of agreements as the basis for such a relationship.

The ENP is implemented through bilateral (EU-country), regional (EU-more than one countries) or neighbourhood-wide and cross-border cooperation programmes. The evaluation of the first years of ENP gave encouraging results. Among others, the EU attributed great importance to the enhancement of mobility for researchers, academics and students through the increase of relevant synergies. Moreover, it encouraged the skills development of the workforce, which can benefit the labour markets of both the origin countries and the EU, and improve the business and investment environment (European Commission, 2010, pp. 5, 6-7).

The ENP further advancement broadened the sectors for cooperation. Interventions in education were considered essential and were connected with coordinated employment and social policies. The development of a Common Knowledge and Innovation Space with increased opportunities for mobility, research and innovation, of university modernisation and partnerships, of school cooperation were encouraged (European Commission and High Representative of the European Union for Foreign Affairs and Security Policy, 2011, pp. 10-11, 16-17). Moreover, greater emphasis was given to social issues through the promotion of people-to-people interventions through targeted (mostly thematic) projects. The Eastern Partnership maintains its primary focus on the establishment of stronger states and the promotion of democracy, prosperity, stability and cooperative spirit in the region, as well as on societal resilience. The mobilisation of social actors and the introduction of processes that allow the voice of people to be heard by all kinds and levels of authority are also very important and ensure the inclusiveness of projects (European Commission and High Representative of the European Union for Foreign Affairs and Security Policy, 2015, 2017).

EDUCATION AS POLICY FIELD IN THE EASTERN PARTNERSHIP

The Eastern Partnership expresses the agreement between the EU and the six neighbouring countries to implement cooperative actions in different policy fields. Education is one of the most important yet challenging areas in which a promising cooperation has been developed between the EU and EaP countries during recent years. Education initiatives aim to develop

the human capital, and especially people's social and vocational skills, and to improve their productivity and employability, with significant benefits for the countries' socioeconomic, political and cultural advancement. During the period 2007-2018 196 bilateral action programmes were approved by the EU; 21 focused directly on education, while 44 included educational objectives and relevant interventions as components (Website of EaP).

The EU agreements established centralised management for all action programmes and required the interventions to be planned, implemented and monitored by national or regional/local public authorities, although the utilisation of the expertise of other entities was encouraged. Initiatives in education were usually supervised by ministries responsible for education, employment or finances, while various stakeholders were invited to participate in the projects' ownership and to contribute to their adjustment to the actual needs of the countries.

The design of education-oriented programmes indicates the countries' willingness to undertake reformative initiatives with the financial and technical support of the EU. Although the programmes' objectives differ between countries, they can be classified in specific, but interrelated, categories, which reflect the particular needs and the relevant policy orientation of every country and facilitate the projects' association with the SDGs: education levels (secondary and higher education, vocational education and training), skills development and employability, relevance and matching to the labour market, youth support (skills, entrepreneurship), lifelong learning, or broader policy issues (gender, poverty, sectoral development [agriculture, energy, environment, etc.], sustainability, good governance).

The education-oriented action programmes primarily focus on human capital either for general purposes, such as the country's stability and resilience, or for targeted skills development by the workforce and, therefore, the improvement of its employability. All countries commit to investing in the skills of their people, especially of those of young age, in order to help their transition to the labour market and to ensure better prospects for them. Furthermore, they anticipate to increase the relevance between education and the labour market, to reduce skill mismatches and to improve their economic performance. Also, there is a strong focus on improving the quality, the accessibility, the inclusiveness and the governance of the education systems, while measures for better curricula, teacher professional development and support, acquisition and certification of qualifications complement the interventions.

Most of the education-oriented programmes focus on (secondary or post-secondary) VET, which is regarded as a means for better labour market efficiency, socioeconomic

inclusion and poverty alleviation. Programmes targeting VET were introduced in all countries: Armenia (Commission of the European Communities, 2007; European Commission, 2009a, 2015); Azerbaijan (European Commission, 2014c, 2018c); Belarus (European Commission, 2014b); Georgia (European Commission, 2009b); Moldova (European Commission, 2012c, 2013b); Ukraine (European Commission, 2018b). They aimed at the promotion of necessary reforms and the development of effective, modernised and attractive VET systems capable of improving education outcomes and qualifications, cost efficiency, monitoring and quality assurance mechanisms, and graduates' employability. The objectives were adjusted to the strategic economic activities and the particular skill needs of each country, while they often targeted special vocational skills (i.e. for agriculture in Armenia and Azerbaijan, for manufacturing in Azerbaijan and Ukraine, for energy and the environment in Belarus and Ukraine, for entrepreneurship and IT in Moldova) (European Commission, 2013c, 2014b, 2014c, 2015, 2018a, 2018c). Also, most programmes highlighted the importance of their successful implementation for stakeholders from both the supply (public authorities, education providers, accreditation bodies) and the demand (all groups of social partners and labour market actors) side, who by monitoring the ongoing economic and technological changes are able to identify the existing needs in skills and qualifications. The establishment of strong networks was promoted involving not only VET institutions and professionals, but also public authorities and employment services, the industry, local stakeholders and the civil society. In addition, the improvement of learning and monitoring processes received special attention in order to increase the relevance of learning outcomes to the labour market demands and the attractiveness of the VET system to the general public (European Commission, 2009b, 2012e, 2013c).

The aforementioned interventions should be combined with initiatives targeting the institutional and methodological development of all forms of learning (formal, non-formal and informal) and the training of educators and staff, the promotion of lifelong learning and the establishment of credit and recognition systems (i.e. National Qualifications Frameworks) (European Commission, 2013c, 2017a, 2018c). An additional field of interest was the promotion of innovation through enhanced STEM education focusing on science, technology, engineering and mathematics (European Commission, 2012b, 2017a, 2017b), as well as of scholarships for studies in Eastern Partnership or EU countries (European Commission, 2011, 2012a, 2012d, 2013a, 2014a, 2016, 2018a). Moreover, in some countries provisions for training for entrepreneurship for young people were associated with the broader economic advancement in existing or new sectors (European Commission, 2013c, 2017a).

Nevertheless, the outcomes of any progress in the quality and the quantity of education systems were not limited to the creation of a better skilled workforce and to the improvement of competitiveness and productivity. The action programmes highlighted the benefits of education for the broader society; the respect for human rights and fundamental freedoms could be ensured, civic participation and good governance could be reinforced, while key issues, such as gender equality or concerns regarding the human impact on the environment and sustainable development could be better managed (European Commission, 2013c, 2014c).

Besides the exclusively education-oriented action programmes, 44 programmes focusing on other policy areas included education components with complimentary roles (Note 1). The countries' socioeconomic development required special support from the public sector or private-public partnerships in order that the functioning of the labour market improved and more jobs were created. Towards such objectives the targeted training of the local workforce, as well as of civil servants managing the initiatives was included in the action programmes. Similarly, there were provisions for training and advisory services to local municipalities and civil society organisations aiming to improve municipal capacity for service delivery, citizen participation and cooperation between local governance stakeholders within the framework of joint projects.

In general the action programmes attempted to keep up with the global developmental orientations. What is more, programmes introduced after 2015 tended to connect their objectives with –and sometimes to explain their relevance to– the Agenda 2030 (United Nations, 2015), although this did not imply a commitment by the countries benefiting from them. All education action programmes from 2016 onwards are aligned with Goal 4 that aims at ensuring inclusive and equitable quality education for all. It is worth mentioning the special focus on the access of both men and women to VET and higher education, whereas youth and vulnerable groups attract the attention of many interventions. The promotion of measures for sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Goal 8), poverty alleviation (Goal 1), gender equality (Goal 5) and inclusive societies and stronger institutions (Goal 16) also hold a key position in the programmes, while various references to all forms of sustainability indicate influences from Goals 2, 7 and 9.

FUNDING OF EDUCATION BY EaP ACTION PROGRAMMES

Each Eastern Partnership action programme was financed by the EU budget. The management, and thus the allocation of the financial resources to selected actions, were centralised and exercised by the public authorities, although national/regional/local stakeholders could be invited to share their expertise. A major novelty of the 2011 ENP revision was the so-called “more for more” principle, according to which additional reform efforts by partner countries were to be rewarded with additional financial and other support (European Commission and High Representative of the European Union for Foreign Affairs and Security Policy, 2011). Most of the studied Eastern Partnership action programmes not only mentioned the need for better regulation and monitoring of their financing, but also included special provisions for the creation of appropriate tools for better utilisation of the available financial resources.

During an eight-year period (2011-2018) 196 action programmes were approved by the European authorities for implementation by the six EaP countries. Only one out of ten programmes (21 – 10.7%) was an education-oriented one, but the financial resources dedicated to education action programmes were limited to 6% of the total funding. The allocation of the total (196) and of the education (21) programmes’ funding presents interesting particularities. The total allocation of European funds amounted to € 4,347,790,000. Three out of five programmes (59.7%) were implemented by Georgia, Moldova and Ukraine. Ukraine received more than 1.73 billion (39.8% for 39 programmes) followed by Georgia (almost € 0.93 billion – 21.4% for 39 programmes) and Moldova (almost € 0.87 billion – 19.9% for 39 programmes), while the remaining € 0.83 billion was divided to Armenia, Azerbaijan and Belarus (Table 1).

TABLE 1
EaP Programmes’ Allocation by Country and Type of Funding (2011-2018)

Countries	Number of action programmes	EU total funding (€)	% of total funding	Number of education programmes	% of education programmes	EU funding for education programmes (€)	% of EU funding for education programmes
Armenia	27	391,000,000	9%	4	19.1%	69,000,000	24.7%
Azerbaijan	18	219,500,000	5%	2	9.5%	32,500,000	11.7%
Belarus	34	214,570,000	4.9%	10	47.6%	39,500,000	14.2%
Georgia	39	928,395,000	21.4%	2	9.5%	69,850,000	25%
Moldova	39	863,725,000	19.9%	2	9.5%	30,000,000	10.8%
Ukraine	39	1,730,600,000	39.8%	1	4.8%	38,000,000	13.6%
<i>Total</i>	<i>196</i>	<i>4,347,790,000</i>	<i>100%</i>	<i>21</i>	<i>10.7%</i>	<i>278,850,000</i>	<i>6.4%</i>

Source: EaP action programmes’ data elaborated by the author.

The funds dedicated especially to education programmes amounted to € 279 million (6.4% of total) and their allocation was quite different from that of the total funding with some countries receiving bigger portions of educational funding compared to their total funding. Almost half of the education programmes were implemented by Belarus (10 programmes – 47.6%), but the country received only 14.2% of the education programmes' funding. Armenia implemented 4 programmes (19.1%) and received one fourth of the relevant funding (24.7%), while Georgia received 25% of the education funding for only 2 programmes. The remaining funds were received by 5 programmes of the other three countries with Ukraine receiving only 13.6% of the education funds, but almost 40% of total EU funding.

It must also be taken into consideration that, besides the aforementioned ones, education interventions were included in the design of other approved action programmes regardless of their different scope and objectives. Unfortunately, detailed information regarding the actual funding allocations by type of intervention within each action programme was not available in the official approval documents.

CONCLUSIONS

The paper studied the bilateral action programmes agreed between the EU and the six countries of Eastern Partnership during the period 2007-2018. Of the 196 action programmes that were studied, the paper especially focused on the 21 exclusively education-oriented ones and attempted to identify the primary objectives of the countries' reformative initiatives; also, the education components of other programmes were taken into consideration.

The findings show that the quantitative and the qualitative improvement of VET is the prevailing issue of concern for the bilateral action programmes. By promoting extensive reforms the countries attempt to create a properly skilled workforce and thus to ignite their production efficiency, to increase their competitiveness and to achieve greater and sustainable economic development. Moreover, the programmes explicitly recognise the importance of better quality education and training for multiple stakeholders: for individuals, who improve their employability and social integration; for societies, which become more inclusive and resilient; and for states, which develop stronger systems of good governance and effective socioeconomic synergies with different actors.

The study of the most recent programmes also designated the increased influence of SDGs on their design. The programmes' objectives and implementation primarily take into account SDG 4 that has direct relevance to inclusive and equitable quality education and

lifelong learning. Furthermore, the influence of education in other policy fields is reflected on the articulation of broader objectives and the impact of relevant SDGs. EaP countries are invited to ensure conditions for sustainable, inclusive, full and good quality employment for all, while men and women are encouraged to improve their skills and labour market participation, as well as to undertake additional roles as entrepreneurs or as citizens in order to achieve gender equality. Interventions with relevance to the environment and to the achievement of sustainability, of good governance, strong institutions and democratic values are clearly influenced by SDGs and complement the projects' aims.

As regards the EU, the bilateral action programmes constitute an expression of its strong interest in ensuring well-organised education policy interventions in Eastern Partnership countries. A skilled workforce is able to adapt to global changes easier and thus to participate in national and international (i.e. the EU) labour markets. Moreover, better educated individuals are expected to respond to social challenges with greater success and thus to increase their contribution to the transformation of their societies. The European interest is in line with its aims to enhance the overall socioeconomic advancement, the developmental capability and the political stability of its neighbouring countries and to reinforce a fruitful EU-EaP interaction.

NOTES

Note 1: Armenia (2013, 2014, 2016, 2018); Azerbaijan (2013, 2015); Belarus (2011, 2013, 2017, 2018); Georgia (2010, 2013, 2017, 2018); Moldova (2012, 2015, 2017); Ukraine (2010, 2012, 2013, 2015) (Website of EaP).

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Comparative Analysis of Higher Education Expenditure Efficiency in European Union Member States from Central and Eastern Europe

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ABSTRACT: This paper provides a comparative analysis of the expenditure efficiency of higher education in the EU Member States of Central and Eastern Europe. The study is performed by applying Data Envelopment Analysis. The comparison shows that the most expenditure efficient country is Romania, followed by Czechia, Lithuania and Slovenia. Estonia and Bulgaria are classified as the most inefficient countries in terms of higher education expenditure despite the fact that investment in the field is relatively high.

Keywords: expenditure efficiency, higher education, CEE, EU, comparative analysis, Data Envelopment Analysis.

JEL: C14, H52, I21, I23, O52.

INTRODUCTION

The acquisition of a higher education degree is an investment in human capital. On the one hand, this has a positive effect on the labour market realization and the welfare of the individual. On the other hand, human capital is a factor that, according to endogenous growth theories, favours economic growth (e.g. Romer, 1986). The importance of this subject necessitates an increase in investments and improvement of the efficiency of the incurred expenditure.

Unlike secondary education which advocates the principle of equal access and equal opportunity to a greater extent, higher education is not compulsory and in most European countries is funded by mixed sources. The acquisition of a higher education degree provides an advantage and implies a more successful labour market realization. According to Eurostat data it could be noted that shows that the employment rate (age group 25-29) among the population with secondary education in the member states of the European Union from Central and Eastern Europe (CEE) in 2018 is on average 77.7 percent, while for the population with higher education it is 82.9 percent. The same trend is observed for youth unemployment (6.7 percent for the population with secondary education vs 6.3 percent for the population with higher education in CEE Member States in 2018) and income (the average monthly earnings of a person with secondary education in the CEE member states in 2014

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was 731 euro, while for a person with higher education it was 1066 euro). In addition, in 2018 in CEE, a significantly smaller proportion of the population with higher education was at risk of poverty or social exclusion.

The positive effects on higher education individuals, as well as the external effects that higher education generates, motivate public policy in the field. One goal is for the majority of the population to have a higher education degree. In this way, more people will benefit from better opportunities to enter the labour market, thereby also affecting inequality in society. Increasing higher educational attainment is precisely one of the goals of the Europe 2020 Strategy to achieve smart growth. In 2018, according to Eurostat data, the EU average goal was reached (higher education attainment for age group 30-34 was 40.7 percent with a target of 40 percent by 2020).

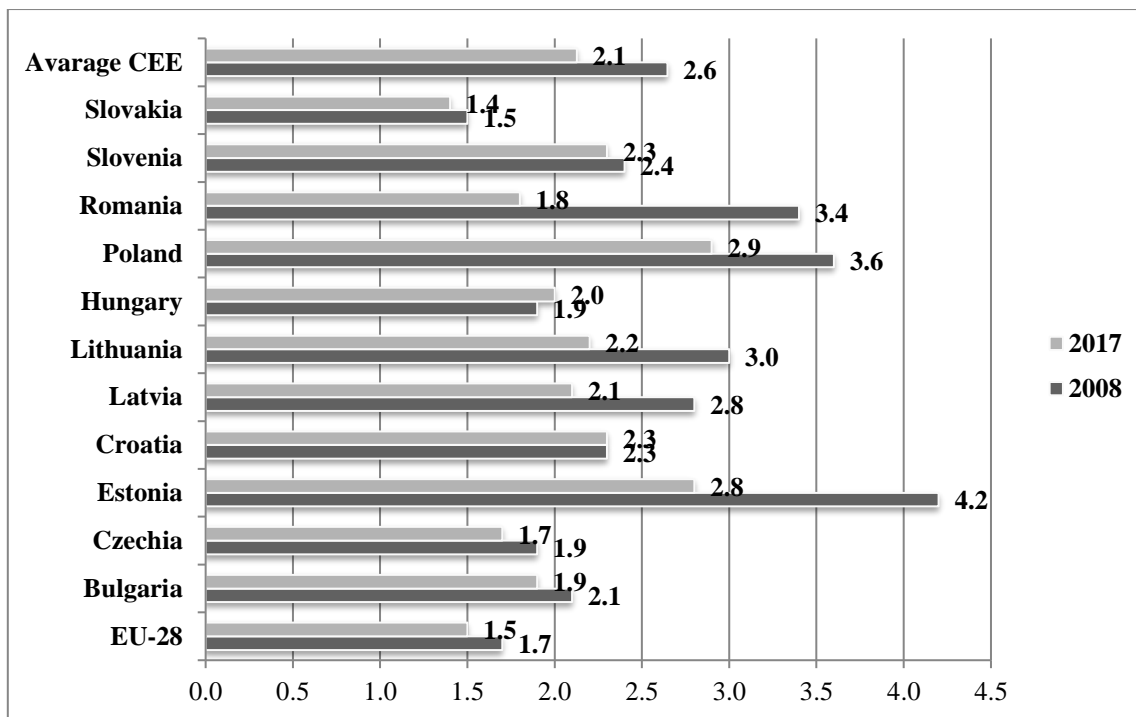
It should be noted that, according to Eurostat data, the achievement of the national target is also characteristic of the Czech Republic, Estonia, Latvia, Lithuania, Poland and Slovenia. The other studied CEE countries are close but have not yet achieved the national target set out in the Europe 2020 Strategy in this area. The highest value of higher education attainment (age group 30-34) is characteristic of Lithuania (57.6 percent for 2018). Other countries in Central and Eastern Europe (Estonia, Poland, Latvia and Slovenia) also show values higher than the EU-28 average in 2018.

Obtaining a higher education degree influences the labour market integration and welfare, but more important are the skills acquired in the course of training. Exploring the relationship between education and economic growth, Barro (2013) points out that “quality and quantity of schooling both matter for growth but that quality is much more important” (Barro, 2013, p. 228). For this reason, the second area in which efforts in higher education should focus is achieving higher quality of service.

Increasing the positive effects of higher education in both directions can be achieved by increasing investment in the field or improving the efficiency of the expenditure incurred. Interestingly, against the background of an increase in the proportion of the population with higher education in the period 2008 - 2017, public expenditure on higher education as a share of total public expenditure decreased on average in the EU-28, on average in the CEE Member States, and also in all CEE countries except Hungary (see Figure 1). Higher education, however, can be a quasi-public good (training at public universities), with a way to exclude consumers due to the payment of a fee or a pure private good (training at private universities). In this regard, higher education expenditure have a public source and also a

private source, even though in all CEE Member States the public expenditure exceeds the private one³.

FIGURE 1
Share of higher education public expenditures in total public expenditures (%)



Source: Authors' calculations based on Eurostat data.

Increasing spending in higher education is important, but more important is ensuring that the investment is spent efficiently. The concept of efficiency is associated with company theory, but is also increasingly being applied to public policy evaluations. Expenditure efficiency for higher education is achieved when the resources given produce the maximum possible results or the concrete results are achieved with minimal resources. The purpose of this study is precisely to carry out a comparative analysis of the expenditure efficiency of higher education in the EU Member States of Central and Eastern Europe.

METHODOLOGY

The evaluation of the expenditure efficiency of higher education in this study is done through the application of DEA (Data Envelopment Analysis). This method has been used in a

³ For a more detailed analysis of higher education funding in CEE Member States, see Yotova and Stefanova (2017).

number of studies on the efficiency of education⁴. The widespread application of the method is a consequence of its advantages as a non-parametric method in which the form of the functional relationship between inputs and outputs need not be defined in advance, but determined on the basis of specific empirical data. The DEA classifies countries as efficient (with efficiency coefficient one) and inefficient (with efficiency coefficient less than one).

Applying DEA assesses the efficiency of certain units in a comparative way. For this reason, the choice of countries is essential. In this regard the current study covers a relatively homogeneous group of countries with similar characteristics in terms of historical features and economic development that are relevant to the area under study.

This study employs three models that use one input resource indicator and different output indicators using as a source the Eurostat database. The input indicator selected is Total expenditure on higher education per student as a percentage of GDP per capita. Despite the preponderance of studies on the efficiency of public expenditure on higher education in the literature, the methodological approach here is different. Due to the mixed funding system, it is impossible to clearly distinguish what part of the results are due to public and what part to private sources. In this regard it is more appropriate to use the total higher education expenditure, which in this study are calculated as the sum of public expenditure and private household expenditure and are presented in relative terms. DEA works with data for a given year or averaged data for a specific period. Therefore, input resource data for the 2013-2014 on average will be used. The same approach will be applied to the time range of the output data.

An critical question of the methodology of this study is how the outputs of higher education expenditure incurred should be defined and measured. The first area in which results can be explored is higher education attainment, which reflects their quantitative aspect. The second area reflects the quality of the education received, which in turn affects the labour market integration and the welfare of the population with higher education. The indicators employment rate of population with higher education and population outside of risk of poverty and social exclusion with higher education were selected to reflect the qualitative aspect in this study⁵.

⁴ For studies of education efficiency at different levels, see for e.g. Afonso and St. Aubyn, 2005, Herrera and Pang, 2005, Jafarov and Gunnarsson, 2008, Aristovnik, 2013, Fonchamnyo and Sama, 2016, Dutu and Sicari, 2016, Ahec Sonje, 2018. For analysis of higher education efficiency in particular, see for e.g. St. Aubyn et al, 2009, Toth, 2009, Yotova and Stefanova, 2017, Jelicand Kedzo, 2018.

⁵ The indicator population with higher education outside of risk of poverty and social exclusion is obtained as the percentage of the population with higher education at risk of poverty and social exclusion is subtracted from 100 %.

In particular, the following indicators are used as outputs for the three models. The first model uses Higher education attainment (age group 25-34 years). The second model applies Employment rate of population with higher education (age group 25-29 years), and the third model uses Population with higher education outside of risk of poverty and social exclusion (age group 25-49 years). Averaged data for the period 2017-2018⁶ is used.

The choice of output indicators is predetermined by several circumstances. First, there is a strong theoretical direct relationship between the input resource and the output that is required for the application of DEA, as the purpose of the method is not to calculate the coefficient of significance of the relationship and to verify that it exists, but to determine, by comparative analysis, which countries achieve the greatest resource efficiency (achieving the highest result with a given resource or achieving a given result with the least amount of resources). Second, due to the time lag in the spending of higher education funds and the manifestation of their results in the three selected areas, the output indicators are taken on average for the period 2017-2018 (input indicator is taken on average for the period 2012-2013). Third, the three indicators are defined in a specific age group. Its lower limit is determined by the age at which it is generally considered that genuine integration into the labour market has begun, and at least a Bachelor's degree has been attained. The upper limit is the lowest possible according to the availability of data in Eurostat. Fourth, data on higher education population indicators are at levels 5 to 8 according to ISCED 2011.

In this study, DEA will be used to analyze the efficiency of input resources as they are easier to model. The model will be applied at variable returns of scale, as this will take into account the different scales of the individual units and allow different input-output ratios to be defined as efficient. All methodological decisions described aim to increase the reliability of the study results.

RESULTS

The results of applying Data Envelopment Analysis in the group of ten EU Member States⁷ from Central and Eastern Europe show that, according to the three models, the ranking of the counties (except Lithuania) is relatively similar. The only country that is classified as efficient in all three models applied is Romania (see Table 1).

⁶ For the indicator Population with higher education outside of risk of poverty and social exclusion for Lithuania and Slovakia, only data for 2017 are used, as data for 2018 were missing on Eurostat at the time of the study.

⁷ Croatia was not included in the study as no data were available on higher education expenditure for the study period.

Czechia has a efficiency coefficient one according to the first and third models, and according to the second model it is closest to the efficiency frontier among the countries studied. Lithuania is defined as efficient according to the first and second models, and according to the third model it is ranked eighth in terms of the efficiency coefficient. In this regard, Czechia and Lithuania can be described as relatively efficient according to the study. Slovenia shows a efficiency coefficient one according to the first model, while according to the second and third it is ranked fourth and third respectively. All other countries are classified as inefficient with different deviations from the efficiency frontier according to the three models, as the efficiency coefficients are less than one.

TABLE 1
Efficiency Coefficients

	First Model		Second Model		Third Model	
	Efficiency Coefficient	Rank	Efficiency Coefficient	Rank	Efficiency Coefficient	Rank
Bulgaria	0,7823	6	0,7760	8	0,7760	7
Czechia	1,0000	1	0,9938	2	1,0000	1
Estonia	0,7638	7	0,6741	9	0,6741	9
Latvia	0,8626	5	0,7791	7	0,7791	6
Lithuania	1,0000	1	1,0000	1	0,7487	8
Hungary	0,9826	2	0,9788	3	0,9788	2
Poland	0,9659	3	0,8507	5	0,8507	4
Romania	1,0000	1	1,0000	1	1,0000	1
Slovenia	1,0000	1	0,8931	4	0,8931	3
Slovakia	0,8776	4	0,8448	6	0,8448	5
Average	0,9235		0,8790		0,8545	

Source: Authors' calculations through applying DEA on Eurostat data.

Romania, Lithuania and the Czechia are among the most efficient CEE countries in terms of spending on higher education in a similar study on a previous period (Yotova and Stefanova, 2017). The results are also confirmed by studies using different output indicators and a much more diverse and comprehensive choice of countries studied. Among the countries that Aristovnik (2013) classifies as efficient in spending on higher education are Lithuania and the Czechia. Romania is also relatively efficient, being in the second group of countries in terms of the expenditure efficiency of higher education.

The most inefficient country according to the efficiency coefficients obtained from the three models is Estonia. It should be noted that in Estonia the highest percentage of expenditure per student as a percentage of GDP per capita (see Figure 3) is observed, but the

results from costs incurred in the areas studied are not satisfactory. At the same time, in Romania and the Czechia there is a relatively low value of the input resource indicator. From these observations, a relationship between the expenditure of higher education and the efficiency coefficient can be assumed. However, there are also exceptions, as one of the most efficient countries (Lithuania) is second according to the input indicator used. It cannot therefore be determined unequivocally that there is an inverse relationship between the magnitude of higher education expenditure and the efficiency coefficient. Both countries that spend less and invest more in the field can be efficient. The process of providing the service is more important.

The results show that Bulgaria is one of the most inefficient in all three models (in the first and second model it is in the penultimate place before Estonia, and in the third less efficient than Estonia and Lithuania), while it is at the same time second in terms of the input indicator used. This indicates that comparatively in the country there is a high value of total expenditure on higher education per student as a percentage of GDP per capita, which, however, is not spent in the most efficient way.

The first model has the greatest number of efficient countries (four). For this reason, the average efficiency coefficient is also the highest (0.9235) compared to the other two models. This indicates that more countries are achieving performance that reflects the quantitative results of the expenditure incurred. The average coefficient obtained shows that, with the same amount of resources, on average one CEE country provides 7.65 percent less output than if it were efficient.

According to the second and third models, reflecting the quality of higher education, two countries are classified as efficient, with average coefficient of efficiency of 0.8790 and 0.8545 respectively. The coefficient of efficiency of the second (third) model means that with the same amount of input, a country provides 12.1 percent (14.55 percent) less output than if it were efficient.

CONCLUSION

The conducted study shows that, despite the use of different output indicators in the three models, the ranking of the counties (except Lithuania) is relatively close. Romania is classified as efficient in all three models applied. Lithuania and the Czechia have a efficiency coefficient one according to two of the models, while Slovenia has a efficiency coefficient one according to the first model. According to the three models, the most inefficient country is Estonia, followed by Bulgaria.

All EU Member States from CEE included in the study show the highest efficiency coefficients in the first model. At the same time, the average efficiency coefficient according to this model is the highest and the number of efficient countries is the greatest. This indicates that the quantitative aspects of the results of the higher education expenditure incurred are higher than those related to the quality of the service provided and the labour market integration and welfare. The existence of a supranational objective in terms of the quantitative aspects of the results of investment in higher education is one of the reasons for the observed results. However, given the ultimate goal of investing in human capital, it is necessary to strengthen the pursuit of quality in higher education in the Member States of Central and Eastern Europe. Increasing the positive results in these areas will favour their economic development in the long run.

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The Challenging Inclusion on Refugees Children in Bulgarian Educational System

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ABSTRACT: The paper presents the challenges on inclusion the refugee children into the educational system in Bulgaria. Methodologically the approach is based on combinations of analyses of legal framework concerning the education of asylum-seeking children and those who have received international protection and observation over the teaching and learning process of those children. Analyzing the reasons for dropping out of school in existing sources and research already conducted, it is found that they are usually grouped into several main categories: economic, ethno-cultural, social and pedagogical. The results show that the majority of asylum-seeking children does not have a motivation to integrate in Bulgaria, as for them it is a transit country and the teaching methods does not correspond to their individual, social and cultural specifics and characteristics.

Keywords: asylum seeker, children, education, refugee, teaching.

JEL: J15, Z13.

INTRODUCTION

Education is a key step in the process of integration of refugee children in Bulgarian society. This paper examines the main difficulties in the education of refugee children in Bulgaria, some of which are: the communication with refugee children is a huge challenge due to their cultural, linguistic and psychological characteristics; the lack of trust between children and the professionals who work with them; the limited number of authorized translators and educators to assist and facilitate the process of learning the material. Having in mind those circumstances, the paper will analyze both the legislative framework for the education and the teaching of asylum seekers and recipients of international protection in Bulgaria and the effectiveness of educational methods for refugee children so they could be successfully integrated into the learning process. This is especially necessary since those children arrive into a country where they are neither familiar with the local language, nor traditions and customs, nor legislation, their rights and obligations. The refugee children who are not entitled by the educational and social systems have a higher risk of becoming victims of exploitation - labor, sexual or to fall under the influence of radical terrorist groups.

The main hypothesis of this study is that very small percentage of asylum-seeking children manages to integrate successfully into educational system, as Bulgaria is a transit country for their migration movements. For this reason, motivation to learn Bulgarian is low

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among refugee communities. The lack of trained professionals who work with such children, as well as staff problems in this regard, are also contributing to the observed difficulties in the learning process. Refugee children's teaching is not corresponding to their specifics, which further complicates the process of integration.

LEGISLATIVE FRAMEWORK

Under the UN Convention on the Rights of the Child, the UN Refugee Convention of 1951 and the Charter of Fundamental Rights of the EU, the right to a child's education is guaranteed regardless of their legal status. This means that all children who are on the territory of the Republic of Bulgaria, regardless of whether they are seeking or receiving asylum, are entitled to equal access to education. European asylum law also stresses the principle of non-discrimination in the access to education. The adoption of the Refugee Act in 1999, the Refugee Asylum Act of 2002, and a number of other regulations and documents governing the rights and obligations of refugees lack the foundations for integration policy. At the same time, a number of institutions are responsible for the integration of migrant children, such as the State Agency for the Protection of the Child (SACP), the Social Assistance Agency (ASA) and the Ministry of Education and Science (MES).

The educational integration of refugee children begins at the moment of registration of the application for refugee status and their accommodation in the registration and reception centers of the State Agency for Refugees (SAR). SAR provides Bulgarian language courses twice a week at the registration and reception centers in Sofia. Member States are obliged not to delay access to the educational system by more than three months from the date of the application for asylum for the minor and his or her parents. Asylum seeking children in school age who have received international protection have the rights of Bulgarian citizens to join the educational system, which is regulated by the Law on Pre-school and School Education. Persons seeking or receiving international protection and holding a certificate for a completed class, stage or degree of education are enrolled in a school according to Ordinance No. 11 of September 1, 2016 on the evaluation of student learning outcomes issued by the Minister of Education and Science.

According to official rules, SAR social experts apply to the Head of the Regional Education Directorate who directs the minor to a particular kindergarten or school according to his residence and the wish of the parent after an application has been submitted by the parent or a guardian. Recognition of completed grades in their country of origin from seventh to twelve class inclusive, secondary education and vocational qualification, shall be checked

out by an expert committee at each Regional Department of Education. The decision of recognition of a completed period or grades from first till sixth class inclusive is taken by the host school in which the person wishes to continue his or her education. A student seeking or receiving international protection from first till fourth class is enrolled by age without validating acquired competences. In order to enroll in the first year of high school, the child should validate the acquired competences for the completed previous class.

The provision of additional training in Bulgarian as a foreign language for children and students seeking or receiving international protection is based on Section III of Ordinance No. 6 of August 11, 2016 on the acquisition of the Bulgarian literary language issued by the Minister of Education and Science. The training should be conducted individually or in a group at the discretion of the headmaster of the host school. Additional free Bulgarian language classes are provided as follows: 60 lessons for children in preparatory groups; 90 lessons - for students enrolled in elementary school; 120 class hours for students enrolled in middle school; 180 hours for students enrolled in the high school stage. However, practice shows that not all schools adhere to the full hours. Adults seeking or receiving international protection also have access to evening or individual lessons and vocational training. Foreigners who have received refugee or humanitarian status may continue their studies at the higher educational institutions in the Republic of Bulgaria.

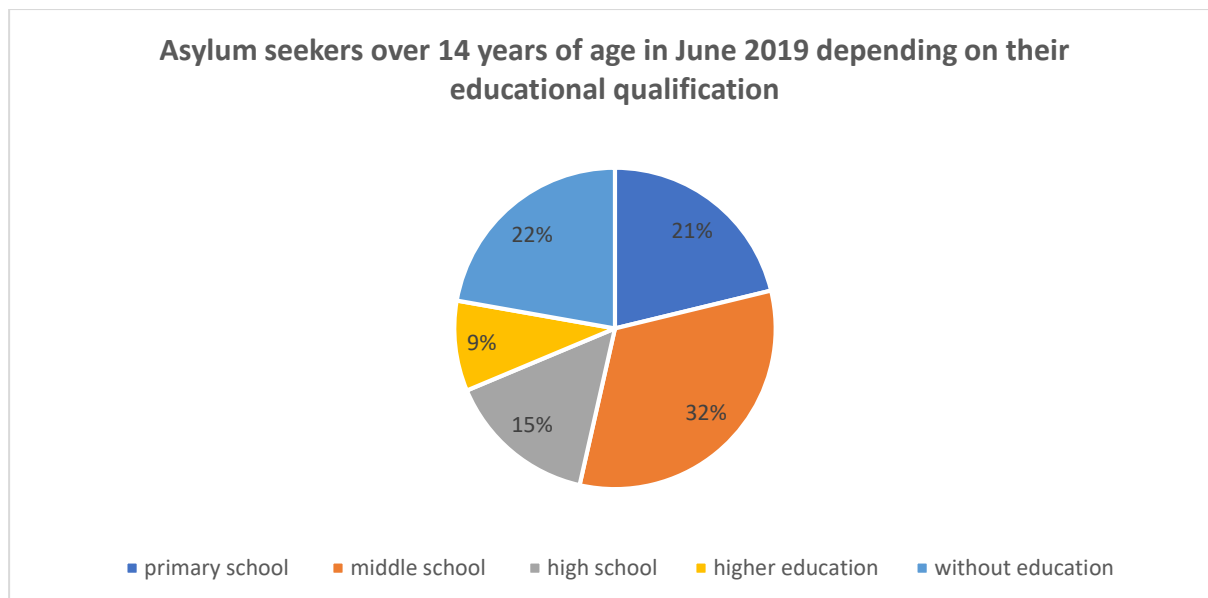
In addition to the legislative ones, there are a number of other initiatives in the country related to the inclusion of refugee children in the education system. In the summer of 2018, the Summer Together Academy hosted refugee children. Also, the International Organization for Migration (IOM) mobile teams hold information sessions at refugee schools in Sofia and Harmanli. During these meetings, the cultures of Syria, Iran and Afghanistan are introduced in order to allow students to discuss their customs, history, languages and economy. On the other hand, IOM and Caritas organize different kind of educational sessions for migrants at reception centers. Computers rooms usually are used to connect with family and friends, for fun or for educational purposes.

THE INTEGRATION OF ASYLUM SEEKING CHILDREN IN THE EDUCATION SYSTEM

According to SAR from January to June 2019, there were 885 people who had applied for international protection and 331 persons are under the age of 18 years old in Bulgaria. There are 224 unaccompanied minor children in the same period (SAR, 2019). According to

UNHCR some 30 000 children arrived in Greece, Italy, Bulgaria and Spain in 2018. 42 % of total 12, 700 children who arrived were unaccompanied and separated (UNHCR, 2018).

FIGURE 1
Asylum seekers over 14 years of age in June 2019 depending on their educational qualification



Source: SAR.

The figure shows that the biggest percentage of asylum seekers were enrolled in middle school in their country of origin, then there is 22% of those without any kind of education, followed by 21% with primary school, 15% with high school and 9% enrolled within university. In general, the level of receiving a refugee or humanitarian status for children is higher than that of adults. Most of the asylum applications of people under 18 years in Bulgaria are of school-age children, with whom arriving in the country without formal educational qualifications or certificate. As of 2018-2019, statistics show that 62% of refugee children in Bulgaria are enrolled in school.

Some of the challenges which the professionals face are overwhelming numbers of children arriving into a country they wish to remain in, or on the move through transit countries such as Bulgaria; difficulties distinguishing between children and young adults; difficulties identifying whether children are accompanied and separated or not; lack of suitable alternative care options and availability of other services; even though you know children should be placed in good quality alternative care, such services don't exist and unsuitable placement in detention centres or adult transit camps might be an option you have been obliged to use; lack of access to training; lack of coordination and cooperation between professional services. Further challenges might include situations when you wish to protect

and support a child who does not want the help on offer, or who only wants to remain in safe accommodation for a few days before departing again.

Analyzing the reasons for dropping out of school in existing sources and research already conducted, it is found that they are usually grouped into several main categories: economic, ethno-cultural, social and pedagogical. The main factors that, according to empirical data, have a strong influence on dropping out of school are: 1) poor economic situation of the family in which the child has been raised; 2) adherence to certain cultural stereotypes, especially when the family lives in a compact group of representatives of their own ethnic group; 3) the state of the school environment and the related difficulties that the child encounters at school.

School absences are another major problem. Some of the refugee children have not attended school in their own countries and do not have habits in this regard, they are illiterate, while others are burdened with dramatic experiences and need additional psychological help and support. However, there are some who have grown up in the families of highly qualified professionals, which is why they have good prior education. Another underestimated problem recently is the problem of students' mental health development. Workers may lack the skills and tools to effectively communicate with children, to gain their perspectives, and really listen to their views. Children themselves might lack the confidence to share their views or feel fearful of the consequences - particularly in the presence of anyone they perceive to be an 'official'. They may need time and support to participate properly. Adults may actively resist children's participation. Some adults are concerned they must only follow the child's opinion or wishes. They do, however, retain full responsibility for protecting children and acting in their best interests.

The presence of refugees is a prerequisite for cultural diversity in our education system. However, in order for the learning process to be effective, teachers must be prepared to work in a multicultural environment, be interested in the specifics and characteristics of the culture and language of the children they work with, seek communication with their parents, regardless of the difficulties and differences. Specialists are needed to communicate effectively and correctly in different cultural contexts. Understanding a child's background and their reasons for moving may also help us appreciate why they sometimes have difficulty trusting us, or reject offers of support. In these situations children may continue to travel in a way that leaves them exposed to risks. Intercultural skills require focused and intensive work with refugee children. The use of teaching methods that are not targeted and focused to this particular group of children, but only on the dominant lower the chances of non-majority

students to manage with the school material. In order the education of refugee children to be effective, it is necessary the teacher himself/herself to have an open-minded view towards cultural diversity, no prejudices and discriminatory attitudes. The teaching staff has to make efforts to inform themselves about the cultural backgrounds of refugee countries of origin, their customs and traditions, in order to allow children to retain their cultural identity while acquiring new skills and knowledge. They have to encourage and to support the rest of the children who represent the majority to learn more about their classmates and to accept them.

An important pedagogical principle for the successful integration of children is that the teacher does not show sympathy or dislike towards a particular or individual student. There should be no different treatment of refugee children - neither discrimination against them nor tolerating them. For children at school, it is necessary to create an environment that stimulates the development of their social and emotional health and enhances their communication skills. The task of the teachers is not easy at all, as they have to adapt to the feelings and perceptions of the students belonging to different groups and to understand the difficulties faced by a child who does not speak the local language at a high enough level for mastering the material. However, most of the time the teachers in Bulgaria are already overworked and too rarely have the opportunity to make additional efforts to give the extra attention and to integrate the asylum- seeking children.

Parents also play an important role in motivating children to attend school and resolve conflict situations related to discipline, aggression, or violence based on ethnic, religious, or other social attributes. Having spent most of their lives in hostilities, crossing state borders illegally with the help of smugglers, they have experienced lack of respect towards their human rights and freedoms were not respected. Influenced by the new environment, some of the children often seek greater freedom in behavior, clothing, and communication with peers. Quite often, it is not the children but the parents and the communities who are not ready or willing to overcome their prejudices and stereotypes. Parents want to convey to their children the values of their culture of origin. Refugees fall into schools with a high proportion of migrants and children from socially disadvantaged backgrounds. Then their chances of integration diminish even further. Obviously, this large number of children have problems with both address registration and parents' understanding of this need. At the same time, as refugees use Bulgaria as a transit area on their way to more developed EU countries, the number of children changes daily due to leaving the registration and reception centers without informing the relevant authorities, which directly affects the educational process. Most often,

the children leave the country illegally after a short period of stay so they do not reach the education system at all.

In the case of unaccompanied asylum-seeking children and the absence of parents and a family environment affects the development of learning habits. Due to the lack of a parent or relative, unaccompanied minors are highly vulnerable and undirected, bifurcated and last but not least susceptible to trafficking manipulation which a good education could prevent. For the majority of unaccompanied children over the age of 16 years, education is not compulsory and, in reality, they do not enroll in school because they do not have a guardian. According to Law on Asylum and refugees, a legal representative is assigned by the local municipality to represent the rights of the children, while the period of their asylum procedure is running. His role usually is quite administrative since he usually is responsible for a very high number of unaccompanied children. It should be also mentioned that not all unaccompanied and separated children want to be identified as children. Some prefer to avoid contact with officials and services - perhaps because of a previous bad experience. To do this they might provide incorrect information or enter a country unofficially, away from an official border. They might pretend to be adults. They might say that the adult they are travelling with is a parent or legal/customary carer when actually they are not related at all.

The pedagogical and psychological work with this group of children is crucial for influencing prejudices and stereotypes, which are part of the public perception and opinion of refugees and migrants. Teachers, psychologists and other teaching staff need to respect human rights and freedoms which are at the heart of European values. Education, sports and practical training are ways for children to direct their efforts in a positive direction for themselves as well as for host societies, in this case Bulgarian. It is necessary to carry out systematic and regular consultations of young people with specialists and experts who are working with this particular group of children. However, it is very often the case that experts on international protection issues decide on a child, while it is more appropriate for the parents to decide on that. In case of unaccompanied minors, the decision maker is usually the child protection unit's specialist or the legal representative.

The effects of cultural marginalization can lead to ethnic or racial discrimination, which in itself leads to isolation, frustration and rejection, lack of motivation and aggression. In this regard, refugee children face challenges related to the way they are received by their peers, learning a new language, coping with the culture shock, stress and the obligation to join the new group and overcoming mental disorders as a result of trauma survivors military of

actions. Each child has his or her own personal biases, which are also a challenge and a barrier to intercultural communication.

Since a large proportion of refugee children are not interested in educational prospects in the country, positive adaptations to their civic and social behavior cannot be expected with inadequate adaptation measures. These children want to learn more German, English or any other Western European language than Bulgarian because either their parents or they themselves do not want to stay in Bulgaria. In this respect, the lack of and teaching materials has a significant effect which further complicates the learning process and makes its course even more difficult. Because of their experiences in their countries of origin and on the road to Europe, refugee children remain more closed and introverted. Although they learn the language faster than their parents, refugee children need additional help to overcome their feelings of fear and sensitivity. Increasing illiteracy also has an extremely adverse effect on future development. Illiteracy in many cases is accompanied by social risks - unemployment, poverty, lack or insufficient care for the health and education of the child, sometimes deviating (deviant) behavior. The loss of habits and abilities to participate in the learning process due to the long interruption of school visits in countries of military and social conflicts is one of the major reasons for failure to meet the requirements of the Bulgarian educational system. On the other hand, the rejection of education as a higher value.

Yet, there are still no proper organizational and legal frameworks for allowing children to go to school in Bulgaria. The Regional Department of Education still does not have a functioning plan how to enroll an asylum-seeking child into the learning process, especially if the child is a teenager and have no literacy at all. All students in Bulgaria who are of that age and do not attend school are subject to serious state control.

CONCLUSION

Studies show that education is one of the most important avenues for the structural integration of refugee and asylum-seeking children. A quality education could satisfy a large part of their specific social and emotional needs. Despite this need, however, across Europe there is a lack of understanding of the challenges these children face, as well as a lack of international transfer of knowledge and good practices.

The basic principles for successful integration have been outlined decades ago, but rather they remain on paper. Despite efforts to integrate these children into the local environment, they are not yet effective enough to positively influence integration processes in the educational field. There is a need to provide legal and practical opportunities for access to

education. So, on the one hand, the big problem is access, especially for those children who are already teenagers, and, on the other, the quality of education, because if the teacher does not know how to work with a child, it also affects the quality of the educational process and the results achieved. Participation in common activities, communication in an informal and casual environment helps to overcome some of these preconceptions. The lack of prior knowledge of the culture, language and society in the host countries leads to low motivation to participate in the educational process, which is complemented by the personal attitudes of perceiving Bulgaria as a transit country. Most of asylum-seeking children have serious emotional problems, depression, nightmares, especially for those who are without parents or relatives. Therefore, additional work with psychotherapists, pedagogues and social workers is mandatory and it is necessary to have a larger number of hours in Bulgarian and English classes.

Regardless of the challenges facing the Bulgarian educational system with regard to the successful inclusion of refugee children, results can be achieved as long as a targeted policy is applied to minors seeking or receiving international protection, namely: providing special measures to ensure access to a system of education, regular teacher training for working with refugee children; involving parents in the process of educational integration; lobbying for legislative changes related to access to the educational system; creating a mechanism for the exchange of good practices between schools, not only nationally but also internationally.

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Sustainable Development of Mobile Operators in Bulgaria as a Challenge for Higher Education

Lyubomira Spasova¹

ABSTRACT: The article studies and analyzes the sustainable development of mobile companies for the period 2017-2020, and identifies some challenges for the educational system in Bulgaria. In a number of scientific studies, it is concluded that business should always correspond to education and vice versa, because future employees of the companies must have a certain competence, communicative and practical skills. In order to achieve this goal the preferences, expectations and motivation to work among students from three Bulgarian universities are studied, as well as the application of their theoretical knowledge during the practices in the mobile companies. Two follow-up surveys were conducted among 20-35 year-old students who identified specific needs for customer service, document preparation and editing, and last but not least, the application of some computer skills.

Based on these requirements, Bulgarian universities offer additional training, some innovative ideas for the development of future employees, as well as feedback from current and future students about their professional competence.

Keywords: innovative activities, motivations, realization.

JEL: M12.

INTRODUCTION

One of the big issues faced by scientists and Bulgarian companies is students' competence, communicative and practical skills. The scientific debate on these issues is very intense and Bulgarian scientists do not agree on what are the basic prerequisites for achieving companies' growth. The first factor is that education builds young and competent staff to deal with the responsibilities of mobile companies in Bulgaria. Last but not least, mobile companies need to check the training and competencies of young people from different Bulgarian universities before appointing them to their respective companies. Next reason is that businesses are developing intensively due to the constant structural changes in world economy. This leads to building new business communications using contemporary information technologies. Based on these requirements, Bulgarian universities offer additional training, good practices, some innovative ideas for the development of future employees, as well as feedback from current and future students about their professional competence. On the other hand, professional management knows that a motivated employee has his/her goal aligned with those of the organization and directs his /her efforts in that direction. (Kamalian, 2010)

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THE ROLE OF HIGHER EDUCATION

In the beginning, education and the ideals it embodied aspired to create a “perfect” society and "perfect" employees. Later, the objective shifted to ensuring that employees were well-trained, and more recently it shifted once again to the awakening of the critical spirit. (Granagos, 2018)

Nowadays the expectations of Bulgarian companies create new responsibilities for their employees. Their thinking is focused on high staff motivation, good communication skills, language and information competencies, as well as professional development and lifelong learning.

In a knowledge society, education is the capacity to be creative in an environment of particular uncertainty, the capacity to properly manage the cognitive dissonance that gives rise to our failure to comprehend reality (Innerarity, 2010). Therefore, nowadays Bulgarian Universities must develop and create new practical education towards lifelong learning and training. In order to achieve this goal Economics faculties at the Bulgarian Universities offer training in the following disciplines: business communications, public relations, mass media, information technology, language training and others, but this does not lead to the perfect preparation of their students. Although education has been understood as a preparation for life, as personal realization, and as an essential element in progress and social change, in accordance with changing needs (Chitty, 2002), this does not mean that it is enough to prepare the necessary staff for the companies concerned.

EMPLOYEES’ MOTIVATION AS A PART OF COMPANIES' SUCCESS

All organizations want to be successful and want to have well-trained staff, even in current environment which is highly competitive. (Ovidiu-Iliuta, 2013) Each individual company offers different products and services that have to be distinguished among competitors. This is a reason to have a strong relationship between managers and employees of the organization.

In order to achieve their goals organizations develop different strategies to increase their performance and to professionally prepare their staff. It has been found that employees are different individualities and have different needs that are not always satisfied by the managers of the organization. (Ovidiu-Iliuta, 2013) If the employees are not satisfied with their jobs and not motivated to fulfill their tasks and achieve organization’s goals, it cannot attain success.

Therefore, developing and the implementation of appropriate employee training programs is a necessary strategy to motivate different workers. In addition, a good communication between the managers and the workforce can instigate motivation, as the

degree of ambiguity decreases. In order to make them trust different managers and complete their tasks properly for the organization, the employees should be motivated. (Baldoni, 2005) This is about young people aged 20 to 35, training at three Bulgarian universities, who are expected to be much more motivated because they want to enter these companies.

The following hypothesis may be formulated on the basis of the presented theoretical materials: **Forming certain disciplines in education as well as their application in practice to individual companies can lead to employees' trust and to a successful realization of its students.**

This hypothesis is about to be tested through a survey among youth at the ages of 20 to 35 who are applying their knowledge and skills to mobile operators in Bulgaria.

METHODS

The article examines and compares the results of two follow-up surveys among 20-35 year-old students who identified specific needs for customer service, document preparation and editing, and last but not least, the application of some computer skills.

The objects of the present report are **156 young people**, employed or training in Bulgarian universities – Sofia University, Plovdiv University and Trakia University. Their preferences, expectations and motivation to work in mobile phone operators in Bulgaria presented as an object of the study have been diagnosed with surveys at two stages. The selection is realized randomly, whereas the only requirement for inclusion is whether they have had or are still having some practices in these companies. The experimental design is intra-group, because all studied persons have been subjected to the same conditions.

The survey comprised of two questionnaires, which listed detailed opportunities to define students' needs and motivation, different difficulties and lacks in business communications, information technology, language training and other.

In order to perform the analyses for each demographic characteristic, the studied individuals have been divided into groups. The participants have been divided into four groups according to their age: the first one was (20-22 years) 28 people, the second group (23-25 years) 46 people, the third group (26-30 years) 47 people and the fourth group (31-35 years) 35 people. The respondents in the survey for this age group are the fewest. The correlation between the ages of the participants is presented in the following table. (see Table 1)

TABLE 1
Percentage distribution of respondents by age.

Age of respondents	Percentages	Number
20-22 years	17,95 %	28
23-25 years	29,48 %	46
26-30 years	30,12 %	47
31-35 years	22,43 %	35
Total	100 %	156

Another demographic factor is education, which has led to the formation of three groups (see Table 2): higher – 36 people, secondary - 115 people and elementary, or the lowest educational level – 5 people. Each studied person falls into a single category which presupposes the characterization of questions as independent samples. For the largest group – secondary school level – the respondents have been divided into four groups according to their age. Affiliation to a particular group depends on its characteristics and each of the young respondents applies their knowledge and skills to mobile operators in Bulgaria.

TABLE 2
Distribution by educational degree.

Education	Number	Percentages	Valid percent	Cumulative percent
Primary	5	3,20 %	3,20 %	3,20 %
Second ary	115	73,71 %	73,71 %	73,71 %
Higher	36	23,07 %	23,07 %	23,07 %
Total	156	100	100	

RESULTS AND DISCUSSION

In order to establish the effect of demographic data on the motivation of students practicing in mobile companies, T-tests for independent samples of individual demographic characteristics – gender and higher education - were made, and the relation with the emerging factors was explored. Statistically significant differences between the average values for the two genders for six of the factors extracted through analysis.

The T-test formula for independent samples is the following:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where s_p equals:

$$s_p = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

The parameters in the formula correspond to:

\bar{x}_1 – mean value of the first sample

\bar{x}_2 – mean value of the second sample

n_1 – size of the first sample (number of observations),

n_2 – size of the second sample (number of observations),

s_1 – standard deviation of the first sample,

s_2 – standard deviation of the second sample,

s_p – common standard deviation

MAIN DEPENDENCES BETWEEN GENDER AND EMERGING FACTORS

The results from the first significant T-test for independent samples show that gender as an independent variable differentiates significantly the responses of the participants for the factor “**Employees’ motivation**”. On this question the respondents have to indicate how they perceive their work in the mobile operator. It is clear that the group of men has significantly higher mean values for this factor, namely ($\bar{x} = 1.31$) compared to the group of women, where ($\bar{x} = 1.25$). The factor includes the following statements: “*Higher payment*”, “*Financial rewards*”, “*Bonuses and other types of rewards*”, and “*Special allowances*”, where the higher values for the factor correspond to a higher degree of agreement with the statements. Thus, the male group in the present study demonstrates a more expressed inclination to reject payment as an incentive than the female group. $t_{(154)} = -1.356$; $p < 0.05$

Factor – **Employees’ motivation**, where $t = -1.312$ $p < 0.05$, men – 1.310 – mean values, women – 1.249 – mean values.

Nevertheless, studies have shown that pay does not boost productivity on the long term and money does not improve performance significantly (Whitley, 2002). Therefore, high

employees' payment is not the only way to motivate them. The article analyzes some employee training programs that are very important for students' realization.

According to the results from the second significant T-test for independent samples gender has a significant effect on the responses of the participants for the factor “**Trainings for effective work**”. This question examines those additional trainings related to the successful realization of the students, as well as their motivation for work and would be essential for stimulating students' interest. In this test it is evident that the female group has significantly higher mean values for the factor ($\bar{x} = 2.5$) compared to the male group ($\bar{x} = 2.22$). In it the following statements are included – *Language training, Computer training, Teamwork training, Professional courses, Effective communication training, Customer service training* and etc. Women are more likely to accept a larger range of these training actions by giving them a higher evaluation. $t_{(154)} = 2.355$; $p < 0.05$

Factor – **Trainings for effective work**, where $t = 2.355$ $p < 0.05$; men – 2.224– mean values; women – 2.499– mean values.

To determine lack of motivation in young respondents, when performing the official activities, a T-test is applied to some issues as they have significant results. The results from this test show that gender as an independent variable also differentiates significantly the participants' responses for the factor “**Insufficient motivation**”. The male group has significantly lower mean values for this factor, namely ($\bar{x} = 2.05$) compared to the female group where the values are ($\bar{x} = 2.27$). The factor includes the following items: *Poor organization of work, Interpersonal conflicts, Working conditions, Growth opportunities and others*. The male group in these results demonstrates less satisfaction from the work in the company compared to the female group. $t_{(154)} = 2.727$; $p < 0.01$

Factor – **Insufficient motivation**, where $t = 2.727$ $p < 0.01$; men – 2.049; women – 2.267.

CORRELATION ANALYSES BETWEEN HIGHER EDUCATION, EMPLOYEES' MOTIVATION AND THE INFLUENCING FACTORS

Some correlation analyses between the influencing factors for establishing employees' motivation and higher education of students have been made.

The results of the first correlation which is weak to moderate statistically significant and has been formed by the scales of the two opposing factors: “**Additional training**”, and “**Successful realization**” where $r = 0.397$, $p < 0.01$. It shows that the high values on one of the scale correspond to the high values in the second. When comparing the statements related to

the scale “ **Additional training**” (items: *Language training, Computer training, Teamwork training, Professional courses, Effective communication training, Customer Service Training*) and the scale “**Successful realization**” (items: *Acquisition of additional knowledge and skills, Successful work with colleagues, Higher payment, Additional competencies, Teamwork, Satisfaction with the achievements*), we can conclude that the positive correlation may be explained by the positive emotions which are incited by successful realization. This shows a greater satisfaction in youth after making what they think are the right decisions. Therefore, mobile operators can build positive emotional attitudes in their young employees.

Summary: Factor “**Additional training**” versus factor “**Successful realization**”, where $r=0.397$, $p<0.01$

The results show a moderate statistically significant positive correlation between the scales of the two emerging factors: “**Building of employees’ trust**” and “**Interpersonal communication**”, where $r=0.467$; $p<0.01$. This means that there is a tendency for the higher values on one of the scales to correspond to higher values on the other. When comparing the statements of the two scales – “ **Building of employees’ trust**” (items: *Provides correct information to employees; Provides enough benefits to employees; Provides innovative ideas to students’ realization*) and “ **Interpersonal communication**” (items: *Good professional relationships; Fast communication; Trendy offers for employees;*) through which we have attempted to study the employees’ motivation for youth’s behaviour, we conclude through positive correlation that communication change in respondents may lead to changes in their behaviour. Therefore, most positive answers provided by respondents for the first factor will lead to finding out more reasons for behavioral changes, which is in support of our hypothesis – the change in the beliefs of young people reflects on the change in their behaviour when having some practices of mobile operators in Bulgaria.

Summary: Factor “**Building of employees’ trust**” versus factor “**Interpersonal communication**”, where $r=0.467$, $p<0.01$

The results show a moderate statistically significant positive correlation between the scales of the two emerging opposite factors: “**Leadership**”, and “**Building of employees’ trust**”, where $r=0.393$, $p<0.01$. This means that there is a tendency for the higher values on one of the scales to correspond to higher values on the other. As we compare the statements for the two scales – “**Leadership**” (items: *Good character, Good relationships, Enough knowledge, Intuition, Good experience, Past success, Leadership abilities, Successful communication*), and “**Building of employees’ trust**” (items: *Provides correct information to employees; Provides enough benefits to employees; Provides innovative ideas to students’*

realization), we conclude that proper leadership, as well as the positive attitudes of the young respondents would lead to building greater trust in the mobile companies. This is directly related to the attitude of the young generation aged 20 to 35 to their successful work, whose trust and good intentions noted while conducting the survey, reveal companies' security, harmony and stability for each young person.

Summary: Factor “**Leadership**” versus factor “**Building of employees' trust**”, where $r=0.393$, $p<0.01$

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- 1) Change in employees' motivation is hard to investigate, but the continuity of the study shows evidence of such. Every leader knows that motivated and qualified workforce is essential for successful company.
- 2) The implementation of additional training activities in companies can increase the motivation and qualification of the students.
- 3) The behavioral change in youth between 20 and 35 years of age can be explained with the good leadership and the building of trust in a company through benefits.

These conclusions confirm the proposed hypotheses to a certain extent.

CONCLUSION

The study of human motivation is of crucial importance for setting preliminary expectations of young employees, as well as finding different impulses and inhibitions in various individuals. In this context, employees' motivation means the willingness of an individual to do efforts and take different actions towards organizational goals.

The results obtained by the surveys show that men at the ages of 20 to 35 are less influenced by higher pay and therefore it would not stimulate them, just as women stimulate. Women, on the other hand, give more appreciation to the company's additional trainings, feel more satisfied with the work done, and build trust in the company through benefits.

According to the results of present report, not only good students' training at university, but also additional training activities, leadership, as well as building of trust in a company would lead to a higher motivation among young employees at the age of 20 to 35 years. The conducted study focused on the psychological, age and individual aspects of youth being influenced by the exact motives for action.

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