

European Dilemmas of the Brexit Era

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Novo mesto, 2019

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Publisher: Faculty of Organisation Studies in Novo mesto

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e-publication at: <http://www.fos-unm.si/si/dejavnosti/zaloznistvo/>

Katalogni zapis o publikaciji (CIP) pripravili v Narodni in univerzitetni
knjižnici v Ljubljani
COBISS.SI-ID=299986688
ISBN 978-961-6974-37-0 (epub)
ISBN 978-961-6974-38-7 (pdf)

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IMPACT OF BREXIT ON EUROPEAN UNION POLICY. SCENARIOS FOR FUTURE OR THE END OF NETWORK?

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1 Introduction

BREXIT is the common name for the process of departure of the United Kingdom from the institutional structures of the European Union. The process was launched with a referendum in June 2016 in Great Britain.(Internet 1) The referendum was not given a binding legal form for the British government. 72,2% entitled citizens took part in it and 51,89 % of them declared to leave the EU. On 24 January 2017, Supreme Court of the United Kingdom passed its judgement and ruled that the process of leaving the EU by Great Britain requires prior agreement of the British government. It initiated a period of great changes in Europe of key importance for the future of the European Union. BREXIT set the threshold date for old and new order in the EU.

27 Member States, excluding Great Britain, have been forced to make crucial decisions concerning future shape of the Community, visions of social and economic development for the future, opportunities, challenges and threats ahead to face by the EU (Internet 2). Questions about the future of the EU after

BREXIT have currently been gaining more importance. (Armstrong Kenneth, 2017).

How will withdrawal of the United Kingdom from the European Union influence The EU policy, economy and fundamental principles and rules which were the guidelines of the EU's development (Internet 3)?

The authors of the article raise questions about the impact of BREXIT on the EU policy. They seek for the answer through detailed analysis of five scenarios for the future development of the European Union suggested by European Commission in 'The White Paper' of 2017, in response to BREXIT. Are the proposals real enough to be implemented in the future or are they only cosmetic changes of draft amendments, which may lead to further weakening of the EU structure? The analysis cover both social and economic issues, which understanding may allow to build a conceptual connection between the old institutional order and a new, qualitative model of changes.

The novum of the analysis being conducted is based on an attempt to define a new direction of changes in the EU policy after BREXIT.

2 Possible scenarios for the future of the European Union

At the beginning of March 2017, the European Commission presented the outcome of their work on possible scenarios for the future development of the EU after BREXIT. The result of that is 'White Paper' (Internet 4), the document which contains a detailed description of prospective community development strategies after the crisis resulting from weakening of social and economic relations between member states after leaving the EU by Great Britain (Intenret 4).

The time horizon for the document covers the period by 2025. The prognoses concern 27 countries excluding Britain. According to the first scenario- 'Carrying On', the European Union will be carrying on the previous development direction of its common policy. Focusing on delivering the EU positive reform agenda will be the core element of the strategy. The Commission's guidelines 'New Start for Europe' from 2014 and the Bratislava Declaration agreed by all 27 Member States in 2016 shall be of growing importance (Internet 4). The form of EU organisation and the Union's common policy will not change. It can be assumed that the implementation of the first scenario will mean making greater effort to accomplish creating common market. The European Union will seek to strengthen energy union between member states, build a comprehensive defence policy and enhance security level in general. Continuation of current development strategy of the EU shall not have negative influence on the Union's budget. It can be assumed that the budget might need slight adjustment because its current form does not match new reforms agreed by all 27 member states.

According to main assumptions of Scenario 2 'Nothing but the Single Market', the European Union's function will be limited to support the development of single market and its management (Internet 4). Growing divisions in member states being a consequence of different expectations as to the way local policies are conducted will make it impossible to conduct common policy involving all areas of social and economic life. The Union's aim will also be to maintain free movement of goods and capital between 27 Member States. The position of the European Commission would be significantly weakened (Internet 5). It can be assumed that moving simultaneously in the same direction would limit free movement of people and services in the EU. Direct consequence of resignation from common policies would be uncontrolled deepening of development disparities between the EU Member States.

Choosing this way of development will lead to limitation of many regulations at the Union level and will deepen the differences in the way of creating standards concerning consumer rights, social benefits, environment protection, taxes, public aid etc..It can be concluded that following this way of development would also have the greatest impact on the Union's budget. Changing main assumptions of the EU policy and focusing only on single market development would result in modification of the EU projects financing scheme. The EU would stop supporting poorer member states and financing profitable projects developing the most innovative businesses, partner networks, infrastructure projects directly supporting economic development.

The third scenario 'Those Who Want More Do More' calls for further development of multi-speed Europe (Internet 4). It will be possible for the EU Member States to establish and develop coalitions in order to implement certain undertakings in specific areas. Main aim of coalitions between volunteer countries will be to encourage deeper cooperation in the areas considered to be disputable for all 27 Members (Internet 6).

Lack of possibility to reach an agreement will not impede the countries willing to develop certain projects, undertakings etc. The willing Member States would cooperate in specific areas such as defence, internal security or social matters. Under this project, the Community still would function within Single Market and Schengen area. It can be assumed that multi-speed Europe scenario would also allow to harmonise taxes and social standards in the countries willing to act more eagerly in problematic areas. It can be also concluded that the third Scenario would have the greatest impact on the Union's budget. Willing Member States would be obliged to allocate additional funding for this purpose.

Another scenario, Scenario 4 ‘Doing Less More Efficiently’ is based on the assumption that the EU’s common activity is concentrated on a few key aims and areas (internet 4). Having defined the advisability of the EU will enable more effective and efficient performance of tasks in selected policy areas. Restricting the range of EU activity will improve the way it operates and will increase its effectiveness. The principal idea of this scenario is to do less but more efficiently. More effective execution of tasks would increase ‘added value’ and the quality of cooperation between 27 member states. EU institutions would gain additional competencies thanks to which they would be able to make decisions in priority areas such as competition policy and banking supervision. In the future these areas could be extended to the issues related to trade, migration and safety. The problem connected with this direction of development is not only connected with many potential difficulties which may arise while defining and agreeing jointly on these areas, but it would also threaten the Union’s budget with huge consequences due to the fact that only selected undertakings would be supported.

The fifth scenario ‘Doing Much More Together’ suggests coming back to federalist idea (Internet 4). Member states would be obliged to delegate some further powers the EU institutions, which would make EU more capable. Sharing greater number of empowerments, resources and decisions in all areas of activity of the EU would make the issue of making vital decisions less complicated at the EU level.

It can be assumed that choosing this way of development would enhance further harmonisation of the Single Market. Common social standards and fiscal framework for all 27 Member States would be set. The EU would be able to pursue leadership in defined priority areas. There is a strong need for the EU to be a leader in such spheres as sustainable development, social safety and environment protection. Federalist vision of the EU entails essential consequences for the EU budget, which can be

significantly increased. The EU could aim at ensuring its own sources of income such as European tax.

3 Conclusions

All identified scenarios will lead to great changes not only in the European Union policy, but also in the strategy of Member States development within the EU framework and independently from it. The scenarios proposed by the Union's leaders are not mutually exclusive. Future trends of development of the EU will be some kind of compilation of the scenarios described above. It is difficult to indicate an ideal development model, which would determine the most suitable ways for the Community (Bell, 2017). BREXIT has definitely drew policymakers' attention to global problems which The Community deals with and which led to its partial breakdown. The EU seems to be losing its significance. Its position after BREXIT has deteriorated.

Notwithstanding the decisions taken at the EU level with regard to development scenario, it can be said that the EU will definitely change after BREXIT. Each scenario draws attention to certain sets of problem areas, which require rapid intervention. A perfect model of development would be the one that comprises a unique mix of factors considered to be the EU members' success dependent variables. Global attitude towards the so called social issue is going to change in the European Union after BREXIT. In recent years, the debate on the future of the EU has been carried out in the form of narrative on dealing with crisis, demise, economic stagnation (Clarke, Goodwin, Whiteley, 2017). The issues of economic, banking, migration, ideological and values crisis have troubled Europe (Dorling, Stuart, Stubbs, 2016) and have been the most frequently discussed topics for the last few years.

In the debate about the European Union, there was no attempt to counterweigh pessimistic long-term visions for the future of the

EU. Its advantages, optimistic scenarios for the future development of the Network have been pushed aside in the analysis carried out in the media. It is worth to mention the fact that the EU has successfully contributed to the process of democratisation of societies. Greater possibilities to take part in decision-making process concerning the ongoing processes within Union changed the way social issue was defined (Bell, Machin, 2016) BREXIT demonstrated the power of social effectiveness and implications of implemented idea of democratisation to participate in public debates by all citizens. The EU will have to deal with increasing euro-scepticism in the Member States.

It will be necessary to introduce innovative reforms in response to growing crisis in the EU. The importance of the Community and its power are decreasing as it can be noticed in demographic statistics. At the beginning of 20th century one in four inhabitants of the world was European. Now, the ratio amounts to 6% and is still decreasing. According to Eurostat projections, in 2060 the number of European citizens in any member state will not exceed 1% of the world's population.

It can be assumed that there is going to be an important change in the attitude towards migration policy in the EU after BREXIT. (Bill, 2017) The project of building sustainable multicultural society of the EU has failed. The concept of diversification has transformed into an idea of monocultural society. Taking into account experience in the recent years and BREXIT itself, it can be concluded that culture is of great importance and power. It is not only societies which are rooted in culture, but also financial markets, business and new technologies.

Wide access to new technologies in the EU influences society, which becomes a real driving force. It can be concluded that BREXIT will make the EU more attentive to citizens' opinions

and social attitudes in the EU territory. Detailed analysis of all the scenarios for the future of the EU makes us focus on the need to redefine the role and importance of heterogeneous social traditions across Europe. BREXIT will entail changes in the labour market, social security schemes and social insurance regulations in the European Union (Dravas, 2016). The Community will be forced to deal with challenges related to further development of labour markets both at the level of the European Union and individual member states¹. In 2017 there was presented the so called European pillar of social rights, which was created during Social Summit on Fair Trade and Development, which took place in Göteborg.

The outcome of the Summit is to some extent an expression of pessimistic social moods which have appeared after BREXIT. The EU leaders are getting more aware of the need to undertake common measures in order to improve real convergence of economies and societies in the EU. Development disparities within the EU, different speeds of growth of the EU, increasing social divisions connected with economic exclusion of countries lagging behind, structural unemployment and pay inequalities issues are going to be the most frequently discussed topics at the Union summits (BREXIT, 2016). Providing fair working conditions, ensuring fair terms of employment as well as increased investment in human capital are going to be key slogans in the EU after BREXIT². A change in the attitude to widely understood social aspects is going to be an inevitable consequence of Great Britain withdrawal.

BREXIT implications will have an impact on economic issue in the EU (Davies at all, 2016). The Union budget will change. The UK was, after Germany, the second-largest net contributor to the European budget. In 2015, the British paid 11,5 billion more

¹Compare with: Guerot (2017).

²Compare with: Begg, Mushövel (2016).

than they received. By way of comparison, Poland, as the main beneficiary of the EU funds received 9,5 billion EUR. The forecasts suggest that the EU budget will decrease by 10%. That implies the necessity to redefine key areas subject to the EU financing. In the last few years new priority problematic areas appeared which demand immediate intervention³. These include safety issues, migration, agricultural and cohesion policies. BREXIT may trigger the EU development if assumptions of the EU policy are reformulated and implemented (Davies, 2017).

In spite of budget reduction, the Union may become stronger and more united, bonded by different social and economic relations stimulating its sustainable development. It can be assumed that the EU will start investing in some sectors. Strengthening the EU position will not be possible without economy acceleration. New tasks have already appeared after BREXIT and there are going to be more of them in the future within the EU. It will be necessary to generate some new budgetary resources to complete these tasks. The business sector will significantly change after BREXIT. New and strong Europe demands robust economic foundation (Dickson, 2015). It will not be possible for a single country to accomplish its mission of sustainable economic growth alone. It can be assumed that the EU policy will be focused on supporting paneuropean economy development, digital infrastructure and the development of new innovative businesses.

More funds will be spent across the EU on undertakings which main aim is to restore the power of the European Network (Bachtler et al, 2016). The Network, which was considered to be a counterpoint for other world superpowers. Common European market still has not transformed into morphogenic exchange network space. Only in 2004-2015, the contribution of the EU (including Great Britain) of the world gross domestic

³Compare with: Kowalski B. (2016).

product decreased from 31% to 26%. A declining trend is expected to happen in this area. During that time, China tripled its contribution to the global gross domestic product (from 5% to 15%). BREXIT has drawn attention of some EU ideologists and global policy makers to the most important aspect of the ongoing processes.

Over the last decade, European society and global context of some important economic processes have significantly changed. The ongoing process of economic networking and societies integration has a great influence on the direction of economic and social development. The strongest position on the business market is held by the biggest business networks, whose influence goes beyond the borders of traditionally considered nation-states.

In the near future, the BREXIT process will trigger global discussion about the management mode, gathering and making decisions within economic structures. Can traditional institutional solutions be still suitable in economic and social reality which undergoes significant transformations within difficult to identify, transnational network of authorities (Doran, 2017)?

Is the EU a flexible and easily adjustable organisation, which is getting more powerful and turbulent at the same time? BREXIT will definitely become an inspiration to discuss the future of the EU. Will the EU remain a strong and influential organisation? It is important to start a debate about the future of the EU after BREXIT exceeding traditional institutional framework of narrative. An idea to introduce new taxes, management reorganisation in selected policies are only examples of cosmetic improvements. Transformation period requires great changes in the way of strategic thinking about the EU future, which all future scenarios lacked. The EU is concerned about

the lack of trust in its ability to designate and achieve its strategic objectives⁴.

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NETWORK SOCIETY VERSUS SOCIETIES OF NETWORKS: BREXIT AND THE ISSUE OF NATIONAL IDENTITY IN POLAND

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1 Introduction

The process of forming the European Union was accompanied by the idea of free nations and equality of all European countries. The goal of this structure was to create a space within which independent institutional national entities could harmoniously coexist. The European integration project was supposed to be a counterweight for global national and corporate players.¹ Throughout the EU's history, rich in conflicts and socio-economic successes, European societies have witnessed the formation of a specific network narrative about the role and meaning of the European Union.(Internet 1) The impact of this structure was described in terms of absolute categories. Questions about the future of the European Union seem to be more significant nowadays, when fundamental principles concerning the freedom and independence of Member States are being undermined. Commitment to the idea of freedom and nationality as the source of all other values in developing European societies seems to be a key factor conditioning the

¹Compare with: Wysokińska, Witkowska (2010).

context of political debates over future directions of the socio-economic development of the EU.² The uneven pace of economic development in individual countries, the emergence of new geopolitics created within the EU by the strongest players on the political scene, conflicts over fundamental values, are just some examples of the threat of decomposition of EU structures that we all know. (Betlej, 2017 pp. 387-395)

Will the EU become a network society in the future or will it develop towards a network of independent societies? How will the organization of EU policy and the distribution of knowledge and power within the EU affect the transformations of the identity of the member states? The questions are crucial in the context of attempts to understand the socio-economic implications of BREXIT for the EU. In this article, the authors try to answer the above questions by referring to the example of Poland. Contemporary changes in Polish society related to the issue of forming a strong national identity illustrate the possible directions of social development in the 21st century. Do the nations and states absolutizing the question of sovereignty over external power cells have a stronger position within the framework of broader structural systems? Will the countries functioning within broader strategic alliances, partnerships and cooperation networks have more influence on the real shape of the politics? Answers to those questions seem to be obvious. It is worth noting, however, that BREXIT has changed the perception of the future of the EU in optimistic and obvious categories. (Internet 2) This process drew attention to the underestimated social processes taking place in EU societies. The creators of geopolitics are increasingly starting to ask questions about social agency. In the social science, the term means the ability by which an individual can influence other individuals or influence through such action on a wider network of social relations, and is usually referred to in the context of the

²Compare with: Latoszek (2007).

problem of authority. The possibilities of action and causing changes in the social order are constantly increasing in technological societies. Taking into account the social context of BREXIT and the method of analyzing this phenomenon by social researchers, the authors of the article will refer to the concepts of network and social identity theory.

The term 'network society' which can be seen in the title, refers to societies that have two basic characteristics. The first is the ability to reproduce and institutionalize the network. The network is an example of the form of an elementary social organization.(Dijk, 2012) People have always created, transformed and recreated social networks. Technological development has intensified the natural "networking process". Social network forms are very dynamic, flexible and structurally unstable. The second feature of the network's society is its technological mediation and dependence, to an unprecedented extent, from the operation of new *network-generating technologies*, related to the production and processing of information and knowledge.(Stalder, 2006) In this sense of meaning the net itself and its features become the greatest value, or the source of values. The use of sophisticated technologies allows for an extraordinary intensification of the production and processing of information in the most important areas of socio-economic activity. The network society is equipped with ever greater power based on knowledge and technology, and the power of its influence goes beyond the traditional fields of nation-state power. The anthropo-morphization of the virtual being which is the network society allows us to understand the essential contemporary transformations of classical EU structures in which clear links of the dominant political systems are crystallizing.

An alternative vision of EU development draws attention to the concept of a social network, according to which Europe in the future will be an organization co-created by a highly

autonomous society, partner networks, network systems deprived of one key center of power. Social networks will become a space for exchange of power, giving meaning, producing and distributing values. (Zacher, 2013) The possibility of constant redefinition of the main assumptions of the EU policy will have an impact on global changes in the definition of local development strategies within the framework of cross-linked socio-economic structures. Within the social network, the process of rationalizing normative conflicts at the collective level will be easier. The process of giving social meanings to different types of procedures, rituals, practices, customs will be characterized by a much greater degree of diversity in social networks. This direction of development seems to be the key for EU policy, at least on a declarative level. Many EU documents raise the problem of the need to respect all Member States as well as striving for equalization in their development, taking into account the existence of cultural differences.(Internet 3) Many EU projects are dedicated to exchanging good practices, developing new solutions, strengthening the links between various EU organizations and supporting democratic involvement and civic participation in the process of shaping the Union's policy at all its levels - both, local and EU.

BREXIT showed that the EU needs a policy change to avoid the future implications of the degradation of its position within global structures. Where should we look for answers to questions about the reasons for decomposing the structured institutional order of the community? How important is the issue of identity in the EU? Contemporary social changes are connected with changes in the way of defining the identity within the groups. The transition from "objective" identities, based on cultural differences to more subjective ones, which are based on individual identification and choice of identity is more visible. An important process is the transition from identities overlapping to those based on the crossing criteria of belonging

and identification. Identity is chosen, accepted consciously, and less often described as inherited. In terms of meaning, they lose cultural identity pluralists. Multicultural identities, exclusive in the sphere of identification, are at the forefront of the analysis. (Babiński, 2005 pp 113-114) Politicians and co-founders of the EU project do not seem to recognize the importance of the issue of social agency and the social power of EU participants. The authors of this article will analyze social changes in Poland, which are associated with the emergence of different types of identity conflicts in a developing society.

2 Poland - a great transformation

In less than 30 years separating us from the political breakthrough, made in 1989, Poland has been a witness and participant of two epochal systems of the highest system and civilization rank, which fundamentally changed Poland's position in the international situation and created new conditions for the development of Polish society and economy. One of them was the so-called post-socialist system transformation, which allowed moving from a centrally planned socialist and authoritarian state to a system of market economy and parliamentary democracy. This process took place in a peaceful manner and with wide social acceptance. The result was the liberation of great economic and civic activity, which is clearly illustrated by the uninterrupted, relatively rapid economic growth that has been ongoing since 1989, which is a historical and economic phenomenon on a global scale. The successes of transformation have opened the possibility of moving to the second post-socialist stage of development for our country, that was joining the European integration system, which was culmination was the accession to the European Union in 2004. Membership has opened new, unprecedented development opportunities in all the most important areas of the functioning of the state, society, culture and economy. (Wilkin, 2017) Thus, Poland became a part of the great, unprecedented in the history

of the world, initiated soon after the end of World War II civilization experiment.

Its main goal was the peaceful development of countries on the European continent, which voluntarily and democratically agreed to cooperate with each other, on the principles of solidarity, community, respect for diversity and care for development for all their citizens. It was the first case in the history of international relations, when some countries decided to support the development of other countries, in the interest of reducing the development gaps between them, hoping for harmonious, peaceful development and cooperation. Interestingly, European integration is not a kind of fixed-sum game in which the benefits of one side are at the expense of the other, but it is a game of increasing sum, when all participants can get out of it with big benefits. Its most important achievement is the expansion of freedom and openness in all the most important spheres of functioning of the Member States, regions, local communities and individuals for the constantly enriched forms of cooperation.

Since 2004, Poland has been an active beneficiary of European Community funds. Since 2004, it has already received 137 billion EUR from the European Union, and it has 80 billion EUR to spend until 2020.(Internet 4) In addition, 84 billion EUR comes from the Cohesion Fund and 49 billion EUR from the Common Agricultural Policy. At the same time, it added 44 billion EUR to the Community budget. So Poland "made" about 90 billion EUR. This money undoubtedly changed Poland. The biggest investments are of course transport, environmental protection, but also computer labs in schools and the Copernicus Science Centre.

On the list of the Ministry of Development, which contains projects implemented in Poland from European Funds in 2014-20, there are almost 13,000 positions. The largest planned

investment is the modernization of the Warsaw - Lublin railway line. The value of the project is 4.3 billion PLN, of which the union covers 85% costs. Warsaw residents will also benefit from funding the construction of the second metro line (the EU will fund almost PLN 2 billion out of 3 billion PLN).

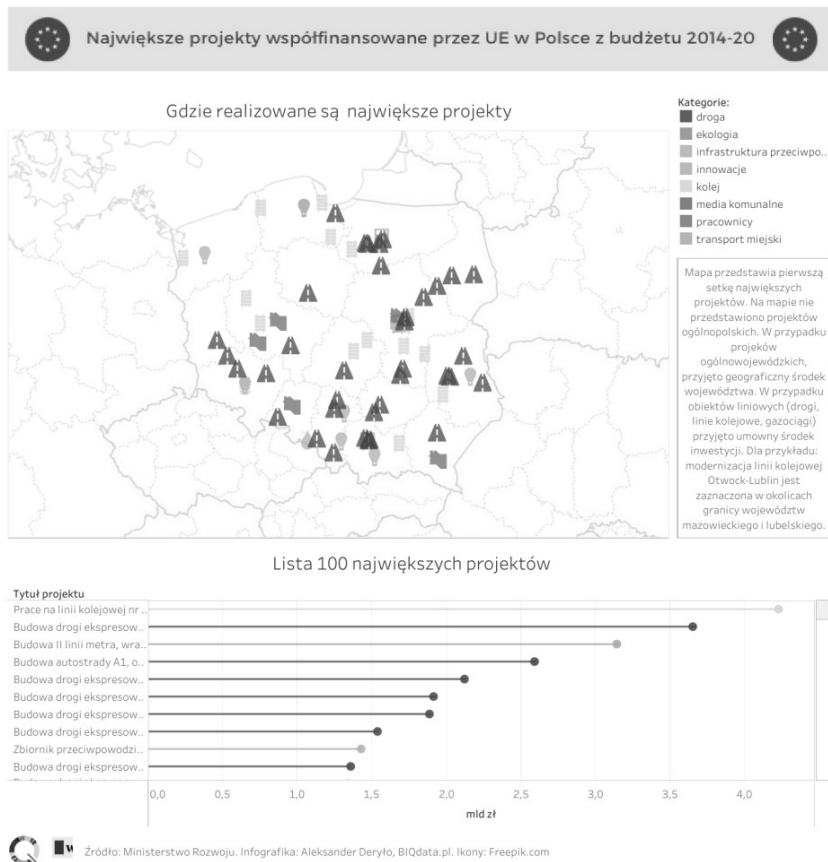


Figure 1. Main project in Poland, co-funded by the EU budget in 2014-2020
Source: Intenret 4.

However, despite such a big development and the benefits that the European Union gives to the Poles, the country talks more often, in the context of Brexit, about separation from the

Community. Is Polesxit so real? Brexit influenced the transformation connected with the re-narration of the "network story" in Poland. The most interesting issue is the question of redefining the national identity in the network narrative. In the further part of this article, the problem of national identity in Poland after Brexit, which takes place in social media and cyber-media, will be analyzed.

3 Will European identity replace national identities?

Brexit is a manifestation of the crisis of national identity in Europe. We can overcome it, recalling that Europe is rich with European cultures - said in September 2016 in Krynica (Poland) president of PiS party Jaroslaw Kaczynski and Hungarian Prime Minister Viktor Orban. According to Orban, the breakup of the Union through Brexit has already happened, but at the same time it is a "fantastic opportunity" to make a cultural counterrevolution. (Internet 5) He believes that the main reason for the exit of the British from the EU was the attitude of the European elite (Internet 6), according to which it was not modern to remain Polish, Hungarian and Czech, Christian or a believer of another faith. A new European identity was proposed, and the British, voting for Brexit, said no, they wanted to become British. According to the Hungarian Prime Minister, those who believe that the structure of man has not changed, national and religious identity are still effective, that there is no European identity that could replace it all. In his opinion, there is no such thing as a European nation, and the stronger the national identity, the greater the effectiveness of a given state. According to him, this thesis is strengthened by the immigration crisis, because it turned out that those who came to Europe have a stronger personality than the "average European", do not assimilate, but create "social islands" that are growing and pushing traditional groups. (Idem) He is joined by the

"private MP"³ of the Polish parliament, claiming that Brexit was not a British excerpt, but a symptom of what can be illustrated by the situation in France, Italy, Belgium, the Netherlands, Denmark, Germany and Spain, "where there are movements that contest the European Union" . In his opinion, this is an element of the "crisis of European consciousness". In addition, he points to several other crises that he believes are pushing Europe. It includes the economic crisis which begun in 2008 - "treated but not healed", the dispute in the eurozone between Germany and the countries of the South, the refugee crisis, the crisis of the European state, which is "impossible, helpless" and the European balance crisis related to the slipping away of Great Britain and the weakening of France, Italy and Spain, which leads to a "hegemonic situation"(Idem). In his opinion, there are two answers to these crises: everything must remain the same, because each change only deepens the crisis - an alternative to this are changes that must be a cultural counterrevolution, must remind that Europe is rich with European cultures, their diversity, diversity of structures, so in the end could only take place the attempt to integrate, according to Kaczyński, at the level of this popular American culture. However, this type of integration would be a huge degradation for Europe. According to him, such changes also require changes in the European Union itself, its structures, decision-making processes, the definition of a nation state within the Union, and the initiation of these changes could be initiated by the Visegrad Group.

At the same time, both leaders agree on the role of foreign capital in the four key areas: media, banks, energy and retail. Hungary has already introduced this principle in the first three areas. The president of the PiS party strives for the same. In his opinion, state-owned enterprises can serve as the basis for investment and reach for the innovative economy. (Internet 5)

³That is the ironic way of calling Kaczyński in media.

4 Economic patriotism is a way to restore the weight of national identity

The above mentioned leaders in their speeches also drew attention to economic patriotism as a necessary element to preserve state sovereignty. (Internet 5) They also talk more about it in the Polish network. This is indicated, among others, by the opposition activist M. Piłka (2013) saying that the process of systematically eliminating the attributes of the sovereignty of our state associated with the construction of the European superstate is possible only in the situation of a deep crisis of Polish patriotism and the wider crisis of Polishness. This crisis is primarily a mental decline after the communist enslavement.

In his opinion, communism undermined the nationalist processes that in Poland were already too late because of historical reasons. In other countries, national identity and modern patriotism developed in the conditions of existence of their own states stimulating and giving shape to these processes, while in Poland the massification of societies associated with the formation of a modern supra-national nation, largely took place in the conditions of the partitioning powers. Patriotism, therefore, shaped as a reaction of opposition to the partitioning powers and this negativism shaped its character in a dominant way. However, in his opinion, the weakness of Polish statehood lies not only in the post-communist inheritance of the state's inefficiency, but also in its democratic inability to define the common good and oppose to the groups and environmental usurpations. Meanwhile, national solidarity that commands economic patriotism is crucial.

According to this author, supporting Polish producers, Polish banks, social insurance companies and Polish trade is the basic duty of Poles, while the fight for the development of Polish capital is a form of economic decolonization of Poland and its

development. This is a fundamental challenge for Poland's economic and political sovereignty. This opinion is shared by many citizens. Patriotism understood in this way is not, first of all, lived emotions because of the national world or sports events, but it is above all a type of attitude oriented towards the well being, development and size of one's own nation.

In his deliberations M. Piłka (2013) goes even further, claiming that the European Union is currently in the process of dismantling national states and eliminating them and it is possible to oppose them mainly through economic patriotism and the fertility of Polish families.

5 Children of Polish emigrants in the UK

Meanwhile, Brexit itself brought many problems to the Poles in exile. They are connected, among others, with the legality of residence and the birth of children. As the British "The Guardian" warns UK-born children, as descendants of EU immigrants, may have a problem after Brexit (Internet 7), calling for regulating the status of children born in Great Britain as soon as possible, providing them with British citizenships. Otherwise, you have to reckon with the problems, because in the case, when the national identity of a child will not be fully determined, Home Office employees can initiate the procedure which will be designed to thoroughly check this issue. In practice, it involves a lot of unpleasantness with the closing of bank accounts or cancellation of the right to drive a car. The problem resulting from the fact that British naturalization law was created long before the EU law on free movement of people in the Old Continent appeared. Children born in the UK do not automatically receive citizenship if they were born in the island after 2000. They have the right to stay thanks to the EU law guarantees, however, after Brexit and after the age of 18, this right will cease to apply. They will therefore have to "prove" that they have the right to stay in the country. It is therefore

necessary to collect all documents proving that the children under their care were legally living in the UK.

6 Is Polesxit threatening Poland?

More and more observers of social life are talking about the upcoming Polesxit. In December 2016, the Batory Foundation's report (Internet 8) "Poles towards the EU: the end of consensus" (Balcer et al., 2016) appeared, indicating that the broad consensus in Poland allowing for more integration in the EU is just about to end. As the reason, the report points to a partial disfunctionality of European structures (euro crisis or migration crisis), weakening the European Union's ability to ensure security and prosperity for its citizens, as well as the EU's entry into the competences of the Member States. The second reason is that international politics is becoming more and more an element of domestic politics - not only because of European integration, but also due to media messages and the effects of global economic processes (relocation of industry) and demographic (migrations) in everyday life. Thirdly, due to the crisis of confidence in representative institutions and the political establishment the use of forms of direct democracy is becoming more and more popular. It can be noticed that the "referendation" (Łada, 2016) is also beginning to enter the sphere of foreign affairs. (Idem, p.1) So, as the British voted for the exit from the Union, the Poles can also vote.

According to the authors of the report, the victory in the parliamentary elections in 2015 of the PiS party led to the fact that we are dealing with the deepest change in foreign policy since 1989. And while in the past the EU was perceived in Poland primarily as a source of opportunities, today it is more often defined by the government as a source of threats. (Balcer et al., 2016) This is also indicated by political facts, like the deepening of the dispute with the European Commission and other European institutions, the crisis in relations with France,

Jaroslaw Kaczynski's proposal to open treaties and severely limit the competences of EU institutions, a common ideological front with Viktor Orbán and the resolution of the Sejm regarding The EU, calling for its transformation into a loose relationship of strong sovereign nation states. In addition, in Polish society, we are dealing with deep and, at the same time, crucial from the point of view of the future of Poland's place in Europe and the world, divisions on various issues related to the EU. And the times of consensus in these matters have passed. Proof of this are numerous Internet publications such as: "Polexit getting closer? The attempts to dictate and limit our internal sovereignty are beginning to come into play" (Lewandowski, 2018), "Polexit has already begun," (Idem) or "Brexit as a lesson for Poland." (Internet 9) Similar type of fears are also visible from the websites of other countries." Polexit " voted could happen if Warsaw became the EU net contributor - Tusk (Internet 10) 'evokes, for example, the words of the former Polish prime minister and the current President of the European Union who in an interview for one of Polish magazines said that undoubtedly one of the goals of PiSparty is the "liberation" of Poland from the borders of the European Union. Also a member of the LSE European Politics and Policy (EUROPP) in the text entitled "Should the EU be concerned about a possible Polexit?" (Internet 10) points to a strong conflict of interest between the Polish authorities and the European Union. The European Council on Foreign Relations is expressed in a similar style.⁴

⁴ „1. Poland's Law and Justice Party (PiS) has embarked on a process of 'de-Europeanisation' to give the country a greater sense of sovereignty and to push back against the socio-cultural model that it feels is imposed by western Europe.

2. Poland's efforts to distance itself from the EU are motivated by both ideological and economic concerns. Ideologically, PiS believes that the country's values and identity are threatened by the EU, and economically, PiS feels that its ambition to become one of Europe's big trading centres is limited by its current position in the EU value-chain

3. In pursuit of its goals, PiS has pushed Berlin, its longstanding partner, away. Instead, it has sought to ally itself with the UK and the Visegrád states

Is Polesxit, in the name of defense of the Polish national identity, possible? At this point, it is difficult to answer this question. Network analysis of the problem indicates that such a narrative appears in Polish society and is promoted by the authorities.

7 Conclusions

The impact of the long-term effects of the BREXIT process on future development directions of the European Union is very difficult to assess. However, it is obvious that its implications are already visible today. The social perception of European integration by the inhabitants of the Member States is above all changing. Democratization of access to the public debate on the condition of the community, the prospects for its development and the most serious threats to structural cohesion not only increase public awareness of citizens, but also their expectations about the strength of individual influence on the further shape of EU policy. BREXIT drew the attention of politicians to the underestimated social forces. Negative assessments of the current shape of the EU and ways of creating and running a common policy focused mainly on the issue of excessive collectivization and unification of development strategies, which less and less took into account the cultural differences within individual countries.

to form a counter-weight to Berlin. But this has been less successful than hoped.

4. In the process of ‘de-Europeanisation’ Poland has diminished its influence in the EU by prioritising NATO over CSDP, undermining democratic institutions, and miring itself down in spats with the EU, among other things. Poland can only avert its collision course with the EU by protecting its democratic institutions and proving that it is deeply anchored in a changing Europe.” (Internet 11).

The issue of national identity raised by politicians, social activists and citizens is increasingly becoming the weapon of political struggle, whose valuation in terms of importance for the defense of fundamental values is an extremely complex and difficult task. The emergence of various types of particularism in Member States with increased strength after BREXIT is a symptom of the EU crisis. It is based on the unfulfilled social expectations and negative assessments of the relations of forces and power structures forming in the EU, whose characteristic feature is the crystallization of specific internal centers and periphery.

Contemporary developing European societies, as in the example of Polish society, strive after BREXIT to strengthen their self-esteem. The way to do this is to establish a positive social identity, or the belief that US (our nation) is better than THEM (other nations). These strategies usually appear in times of great breakthroughs and crises. Brexit has proven that the forces of euro skeptics are significant, which may raise concerns in the context of the future of the EU.

A great social implication of BREXIT will therefore be the search for a common European, EU and community identity. Identities sufficiently large to be able to cover many culturally diverse national identities. A serious consequence of BREXIT may be the European process of losing the sense of community membership in EU structures. Europe after BREXIT is less and less reminiscent of the classical society of the network. A more likely direction of development seems to be supporting the development of a network of societies. BREXIT confirms the thesis about the weakness of European identity, which did not replace national identities, despite the strong influence of dominating power centers within the EU. BREXIT means for Poland the opportunity to strengthen its position in the EU. The issue of national identity is assessed in a very different way, however it should be assumed that in the near future national

identities, strong patriotisms will play a very important role in the process of forming a civil society within the framework of EU structures.

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THE COMPARISON ANALYSIS OF THE BREXIT FINANCIAL CONSEQUENCES FOR THE CEE COUNTRIES OF THE EU

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1 Introduction

If Brexit happens, it will undoubtedly cause significant changes in economic and political situation in Europe. Various reports present scenario analyses of potential effects of Brexit for both the Great Britain's economy and other countries. Those reports, highly influenced by the Brexit advocates, include major arguments for leaving the EU – such as high net premiums for the EU's budget and lack of control over excessive immigration; the reports also interestingly point to the high cost of Brexit for the UK (e.g. Begg, 2017; Ebell, Warren, 2016; HM Treasury, 2016a; HM Treasury, 2016b; HM Government, 2017; Minford et al. 2015; Ottaviano et al., 2014). However, it must be noted that those analyses usually indicate direct consequences and it must be noted that the effects will be felt also indirectly and for an extensive period of time which even today results in lowering estimates and development perspectives for UK. This results in already existing investment decline which negatively influences current and future financial situation of both households and businesses as well as the country's budget. Thus, the conclusion drawn from the results of Bertelsmann Stiftung 2015 analyses which points to high cost of Brexit not only for the UK but also for other EU member states seems to be correct as it suggests finding an alternative for Brexit. Among others, it is suggested to set a net contribution limit do the EU budget at the level of

0.3% of GDP, indicating that high contributions made by the UK have been, in the recent years, even higher due to low economic growth in the euro zone. It is especially significant given the expected drop in immigration that could paradoxically deepen labour shortage and could additionally hold back the economy and reduce its potential for growth. It must be noted that the immigrant population not only fill the gap on the job market, generate consumption and pay taxes but are also structurally younger from natives which increases motivation for innovation (Gadmoski, 2016). Certainly, the effects of Brexit will be also felt among UK's economic partners. Chen et al. 2017 indicates that regions in Ireland face the most severe Brexit consequences and have levels of Brexit exposure due to their longstanding trade integration with the UK. These two economies are far more exposed to Brexit risks than the rest of the EU. But according to their analysis also countries closest to the U.K. — such as Belgium and the Netherlands, as well as those with high volumes of trade such as Germany and France — will suffer bigger economic impact from Brexit. Even though the analyses point out the EU regions or industries that will suffer greater due to Brexit, it seems that for the rest of the Europe the economic effects of Brexit do not sound as profound as the political ones. As a result of Brexit, Common Security and Defense Policy (CSDP) will lose one important player with significant military, economic and political potential. From Poland's perspective, this means loss of an ally in negotiations at the table for example when it comes to monitoring Russian policy towards Ukraine (Usewicz, 2017). In the long run, the dangers seem to be even more significant. Brexit might mean the beginning of end for European integration, especially if British show that it is possible to live well without the EU (Strawiński, 2016). Brexit might weaken architecture of the international security system based on international organizations such as the EU, NATO and it also might contribute to the beginning of its split (Palowski, 2016).

2 Method

Financial requirements of Brexit are still unknown; thus, it is not certain whether it will be possible to maintain the EU's annual budget and who and to what extent would finance the Brexit gap; it is also unknown if and how the rules for financing of the EU's budget and the funds allocation across countries will be changed. Thus, it is advised to make analyses of how big financial support from the EU's budget will be given to those member states, especially to CEE countries, that are its net beneficiaries and still have a development gap to fill. That is why, the main aim of this paper is to analyze and compare statistical data included in financial reports of the European Commission in terms of financial sources and the EU budget expenditures in the years 2004-2016; this will help to answer the research questions what financial support from the EU was given to the CEE countries within the first 14 years of being the EU member state and also to what extent those countries managed to catch up economically with the EU15 countries in terms of generated national income and also to find out for which countries the cut in the EU's support as a result of Brexit and/or the reform of the EU funds allocation rules will affect the greatest. On the basis of the statistical analysis of data with the use of Pearson's correlation coefficients and regression function, an international comparison was made with the use of the inductive reasoning methodology on the basis of content analysis.

3 Results and discussion

3.1 Net beneficiaries and net contributors to the EU budget in the years 2004-2016

The analysis of accumulated payment for the EU budget and funds derived from it in the period of 2004-2016 indicated that 9

countries of Western Europe were net payers of the EU budget (Netherlands, Germany, Sweden, Denmark, United Kingdom, France, Italy, Austria and Finland), and the remaining 19 EU countries were its net beneficiaries (figure 1). The biggest nominal net payer to the EU budget is Germany (in 2004-2016 Germany paid into the EU budget over EUR 156bn more than it received as financial support); however, taking into consideration the GDP, the biggest net payer within the analyzed period is Netherlands, which negative settlement balance with the EU budget for the years 2004-2016 is equal to 7.3% GDP in 2016. Negative balance of other net payers in the entire 13-year period amounts from 2.7% to 4.6% of annual GDP (figure 1).

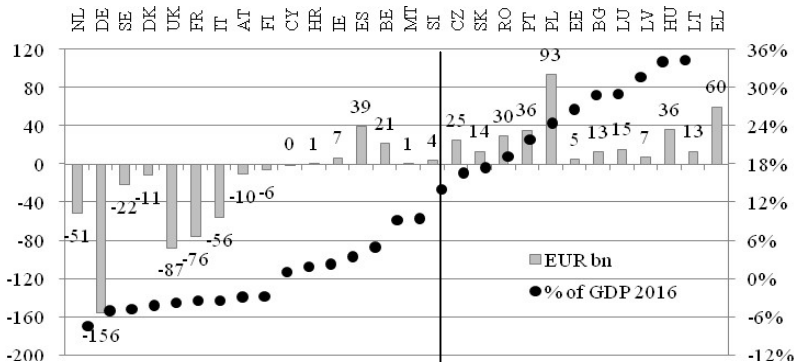


Figure 1. The EU budget net beneficiaries and net contributors in the years 2004-2016 (in EUR bn – left axis and in % of GDP 2016 – right axis)

Source: own calculations on the basis of European Commission's and Eurostat's data (European Commission, 2017; Eurostat, 2018a).

It must be noted that, if high administrative expenditures transferred to Belgium and Luxembourg for maintaining the EU institutions were to be omitted, both of those countries are net payers of the EU budget with Belgium being the biggest one. The negative settlement balance with the EU budget, without taking into consideration administrative expenditures, in the period of 2004-2016 amounted to EUR 32.3bn in the case of Belgium, which constitutes 7.6% of Belgium's GDP in 2016

which is more than in the case of the Netherlands; and EUR 0.6bn, i.e. 1.2% GDP from 2016 in the case of Luxembourg.

It is worth noting that all 11 CEE countries were the EU budget net beneficiaries and Poland was the biggest nominal net beneficiary in the analyzed period. Poland received within that period EUR 93bn more of the EU's funds than Poland's total contributions to the EU budget. It must be stressed that Greece, Portugal, Spain and Ireland are also still net beneficiaries and when taking into consideration the generated GDP, Greece is the biggest EU budget net beneficiary. Positive balance of its settlement with the EU budget in the period 2004-2016 constituted 34.3% of GDP from 2016. Lithuania is placed second (34.1% GDP) and Hungary third (31.7% GDP). Poland, within the analyzed period, was placed as 6th net beneficiary among the CEE countries (in relation to annual GDP). Positive accumulated settlement balance with the EU budget was estimated at 21.9% of Poland's GDP from 2016.

It is worth comparing settlement balances of EU member states with the EU budget in the long run. The European Commission's data enables to compare funds acquired from the EU budget and amounts paid into the budget since 1976, which means from the last 41 years. By eliminating Belgium and Luxembourg, it turns out that, next to Greece, which has positive settlement balance with the EU budget of 70.4% of GDP from 2016, the second country with the best balance is Portugal (37.4% of GDP from 2016). These two are followed by the CEE countries, where the majority, despite short presence in the EU, have overtaken Ireland and Spain (figure 2).

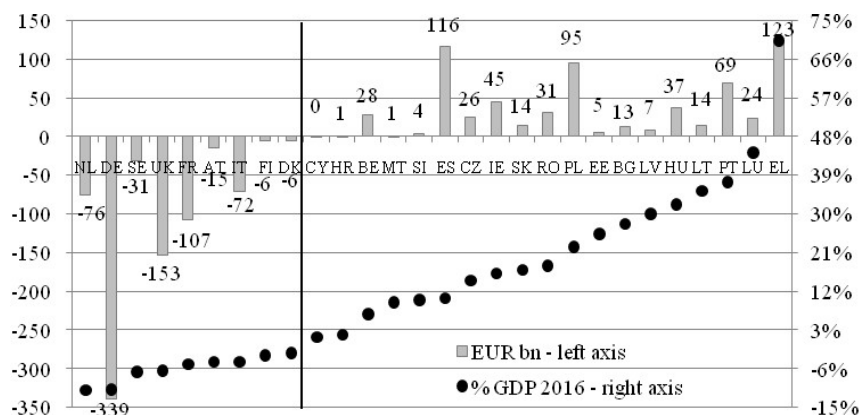


Figure 2. The EU budget net beneficiaries and net contributors in the years 1976-2016 (in EUR bn – left axis and in % of GDP 2016 – right axis)

Source: own calculations on the basis of European Commission's and Eurostat's data (European Commission, 2017; Eurostat, 2018a).

3.2 Comparative analysis of the percentage changes in the level of GDP per capita and the level of the net balance with the EU budget in the CEE11 countries in the years 2004-2016

This leads to verification of the hypothesis of positive dependence between the amount of balance in settlements with the EU budget and the level of GDP growth in the analyzed period of 2004-2016. As indicated in figure 3, the highest increase of GDP per capita in the years 2004-2016 was noted in Romania – which was ranked as the 9th (Luxembourg excluded) country among the EU budget net beneficiaries in the analyzed period. GDP per capita in Romania increased in that period over 120.8%, whereas its positive settlement balance with the EU budget was estimated at 17.5% GDP from 2016, meaning half less than in the case of Greece or Lithuania (figure 1 and figure 3).

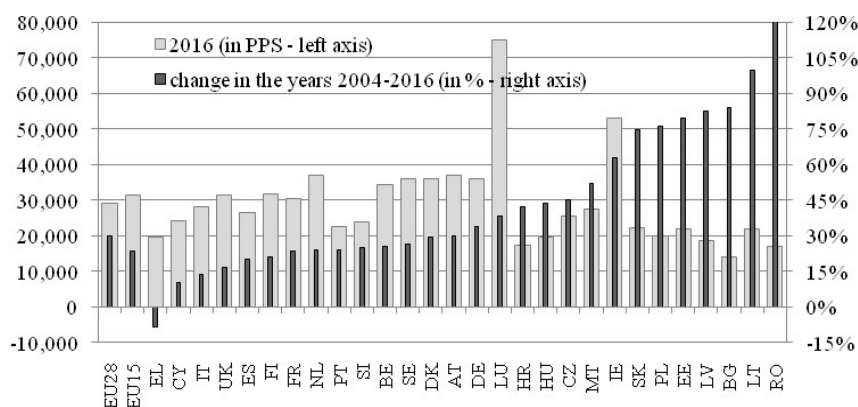


Figure 3. GDP per capita in PPS (current prices) in 2016 (left axis) and change of GDP per capita in PPS (current prices) in the years 2004-2016 (in % - right axis)

Source: own calculations on the basis of Eurostat's data (Eurostat, 2018b).

The comparative analysis of the Pearson's correlation coefficient between the percentage change in the level of GDP per capita in PPS (current prices) in the years 2004-2016 and the level of the net balance with the EU budget in the years 2004-2016 (in relation to GDP in 2016) indicates positive and quite strong dependence, i.e. the higher net balance with the EU budget the higher increase in the GDP per capita in PPS (table 1).

Table 1. Pearson's correlation coefficient between the percentage change in the level of GDP per capita in PPS (current prices) in the years 2004-2016 and the level of the net balance with the EU budget in the years 2004-2016 (in relation to GDP in 2016)

	Pearson's r	Student's t-distribution	critical value $t_{\alpha=0.05, n-2}$
EU28	0.5010	2.9517	2.0555
EU27 (without Greece)	0.6893	4.8514	2.0555

Source: own calculations on the basis of European Commission's and Eurostat's data (European Commission, 2017; Eurostat, 2018b).

The Pearson's coefficient correlation for all 28 EU countries amounted to 0,50, but without Greece indicates much stronger correlation ($r=0,69$). Both of these results are statistically significant.

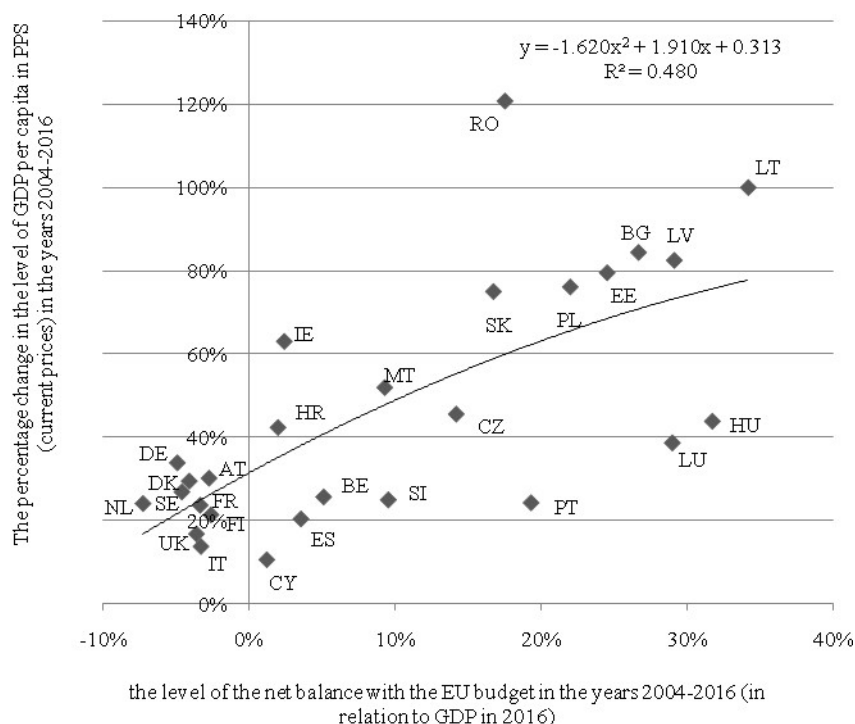


Figure 4. The change in the level of GDP per capita in PPS (current prices) in the years 2004-2016 and the level of the net balance with the EU budget in the years 2004-2016 (in relation to GDP in 2016) in EU countries¹.

Source: self-reported data on the basis of own calculations.

A scattergram of data for analyzed countries illustrates the above mentioned dependency (figure 4). Concentration of points around the positively angled trend line reflects positive correlation between the percentage change in the level of GDP per capita in PPS (current prices) in the years 2004-2016 and the

¹ without Greece.

level of the net balance with the EU budget in the years 2004-2016 (in relation to GDP in 2016).

3.3 Brexit gap in the EU budget

Even though it is impossible to isolate the influence of the EU funds over the GDP growth in member states, the above results confirm the role that funds from the EU budget had within the last 14 years during the catch-up process. 11 CEE countries received in the years 2004-2016 EUR 352.6bn total, which is estimated at 29.7% of their GDP (2016). This amounts to EUR 27.1bn per annum, which is 2.3% of their GDP – this makes the investment process more dynamic, stabilizes the economy and increases development perspectives and ability for the region. Thus, Brexit shortage in the EU budget poses a great danger to future social-economic development of Central and Eastern Europe. It must be noted that if the UK was not a member state in the years 2004-2016, the EU budget would be reduced of around EUR 87.4bn (EUR 6.7bn per annum on average), which constitutes 1/4 of total support received by the CEE11 countries over the last 13 years. It must be noted that negative balance of the UK in settlement with the EU budget was increased after the explosion of the fiscal crisis in Western Europe. Although in the years 2004-2010 Brexit shortage fluctuated on average on the level of EUR 4.3bn and was estimated at 4.6% of all expenditures for other EU27 countries, then in the years 2011-2016 it increased over two times – to the level of EUR 9.5bn per annum, which was estimated at 8.0% of expenditures for all other member states (figure 5).

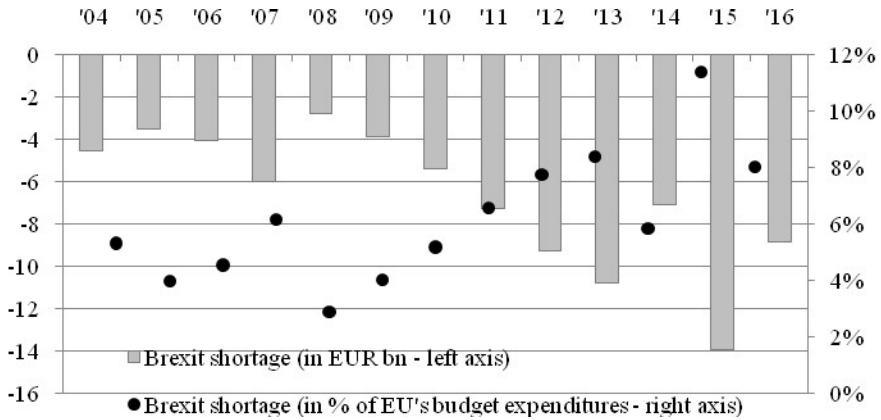


Figure 5. The Brexit gap in the EU budget in EUR bn (left axis) and in % of EU budget's expenditures for other 27 member countries (right axis)
Source: own calculations on the basis of European Commission's data (European Commission, 2017).

Brexit will cause significant financial loss in the EU budget which will be greatly felt by the CEE countries because all of those countries are net beneficiaries of the EU budget. It is not realistic to count that net payers will finance the Brexit gap in full or at least at a significant level, because most of them have been negotiating rebates for financing the EU budget for years, as for years they have been referring to the burden of financing as excessive (Redo, 2011). To mitigate perceived imbalances of net contribution Denmark, the Netherlands, Sweden and Austria benefit in the current financial framework from lump-sum payments and the Netherlands, Sweden and Germany benefit additionally from reduced VAT call rates (European Commission, 2014). The concern that the issue of financing Brexit shortage will start a much deeper financial reform of the EU seem to be legitimate; this will mean only one thing for the CEE countries – decreased settlement balance with the EU budget which will slow down the catch-up process.

Figure 6 presents how important are UK contributions to EU budget for the remaining 27 member countries. It shows, what would be the reduced amount coming from the EU budget for all of the member states in the years 2004-2016 if expenditures from the EU budget were reduced proportionally to remove the Brexit gap (meaning reduced annually of the percentage that Brexit shortage was calculated at in a given year in terms of EU27's budget expenditures presented on the right axis in figure 5, that is for example in 2015 Brexit gap would be estimated at EUR 13.95bn which is calculated at 11.38% of EU27's budget expenditures; hence the estimate on expenditure reduction for every country of 11.38% to remove Brexit shortage – see figure 5).

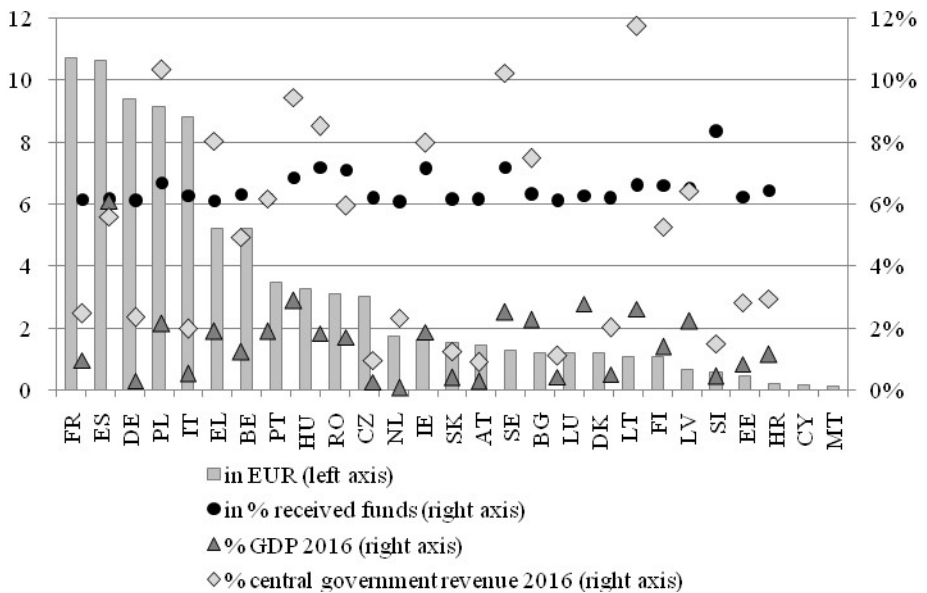


Figure 6. The shortage in the EU budget in the years 2004-2016 if the UK was not a member of the EU

Source: own calculations on the basis of European Commission's and Eurostat's data (European Commission, 2017; Eurostat, 2018a; Eurostat, 2018c).

If proportional reduction of expenditures from the EU budget was made for all other 27 EU member states in the entire 2004-2016 period, it would cause the greatest nominal decrease of positive settlement balance with the EU budget within the entire period in the case of Spain (by EUR 10.6bn) and Poland (by EUR 9.1bn) and deepened negative balance in the case of France (by EUR 10.7bn), Germany (by EUR 9.4bn) and Italy (by EUR 8.8bn) – see figure 6. Comparing those amounts to GDP of selected countries, Hungary and Lithuania would suffer loss of the UK the greatest as they would receive less funds from the EU budget at that time: by respectively 2.88% GDP (2016) and 2.78% GDP (2016). Latvia would be ranked as third (less by 2.61% GDP) and Bulgaria (by 2.52% GDP). This, for the majority of countries, would mean the decrease of funds from the EU budget of around 6% in relations to the financing actually received at that time; it must be noted that in the case of Croatia it would be less than 8.4%, and in the case of Bulgaria, Slovakia, Romania, Czech Republic, Hungary and Poland it would be around 6.7-7.2%. It must be noted that financing from the EU budget serves as great support for national public revenue in the majority of member states and especially significant in some. Reduction of expenditures from the EU budget in the analyzed years of 2004-2016, which would be necessary to level loss of the UK, would mean the strongest reduction of public financing (i.e. national central government revenue and revenue from the EU budget) in the case of Latvia, Poland, Bulgaria and Hungary. The decrease of funding from the EU budget within the analyzed period would be estimated between 9.4% and 11.7% of their central government revenue in 2016 figure 6).

4 Conclusion

Brexit will cause tremendous changes in both economy and political situation of Europe. The consequences of this decision will be felt by the entire European economy, not only by the

countries with the strongest economic ties with the UK; what is more, those consequences will have long-term effects. It must be noted that significant costs of Brexit are not only indicated in external reports but also in official British analyses. This decision will weaken economic perspectives in Europe and might threaten its current economic and political order. However, it seems that weaker EU economies, including the CEE countries will be the ones that will suffer the negative effects of Brexit the most. They are stronger dependent on both financial support from the EU budget and credibility that the EU membership gives them. The conducted comparative analysis indicates that 10 out of 12 biggest net beneficiaries of the EU budget in the years 2004-2016 are the CEE countries, which suggests that they will feel the limits of the EU budget the greatest. This will, without a doubt, limit their development abilities and will also decelerate the catch-up process. Especially that the conducted analysis of the Pearson's correlation coefficient between the percentage change in the level of GDP per capita in PPS (current prices) in the years 2004-2016 and the level of the net balance with the EU budget in the years 2004-2016 (in relation to GDP in 2016) indicates positive and quite strong dependence, i.e. the higher net balance with the EU budget the higher increase in the GDP per capita in PPS ($r_{EU27}=0.69$), which seems to confirm the positive influence of the EU membership over the CEE countries' social-economic development.

It is also worth mentioning one more aspect - Great Britain is the second (after Germany) biggest export market for Polish businesses (in 2016 export of goods and services to Great Britain was estimated at EUR 15.5bn which is 7% of total export; to Germany: EUR 61.1bn, which is 27.5%; GUS 2018). It can be argued that the decrease of trade cooperation between Poland and the EU as a result of uncertainty in terms of the UK's access to the EU's common market and subsequent potential difficulties in the future might be painful to Polish economy. Especially that, according to the research results of

Chen et al. 2017, German regions (after Irish regions) are the next most exposed regions to Brexit, followed by regions in Netherlands and regions in Belgium, and in France; and 48% of Polish export is transferred on to those 6 countries. Thus, the results of the same study that point to relatively low exposure of Polish economy to Brexit, seem to underestimate dangers for Poland that are a direct result of Brexit. Such strong exposure of half of Polish export to Brexit – directly and indirectly through the biggest trade partners who, according to analyses are characterized by strong sensitivity to Brexit, raises concerns over social-economic development in Poland in the next decades and the slowdown of the catch-up process. This might lead to the decreased investment attractiveness of Polish economy in contrast to other CEE countries and further deepening of differences in terms of risk premium estimation and, in consequence, Poland's marginalization in the EU. Export is a significant driver of Polish economy, as well as investments financed by EU funds and the continuity of these is also threatened by Brexit, especially when it comes to the biggest net beneficiaries.

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INNOVATION DRIVEN SUPPLY CHAIN ECOSYSTEM

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1 Introduction

Already in 1934 Schumpeter emphasized importance of innovation for value creation (Schumpeter, 1934). By the new value created by innovation it is important to differentiate between company's improve in performance that depends on the value recognized by its customers (Lepak, Smith, & Taylor, 2007). Nowadays global market brings new challenges for companies that welcome every opportunity to find solutions to them. On their way to stay competitive, the development of innovations is the import part of their business and even crucial for securing competitive advantage (Fernández-Mesa & Alegre, 2015; Kyläheiko, Jantunen, Puumalainen, Saarenketo, & Tuppurä, 2011). Many authors confirm positive relationship between innovation and company's performance (Hortinha, Lages, & Filipe Lages, 2011; Love, Roper, & Zhou, 2016; Silva, Styles, & Lages, 2017; Zhou, Yim, & Tse, 2005). Between various results of innovation, the one is that it creates new market opportunities (Herrera, 2015). Although the impact of innovation is ambiguous it still holds high position in economic development.

Innovation development in every kind of sense is also highly supported by the European Union, especially by the Europe

2020 strategy signed as “Innovation Union” with the aim to create environment that will sufficiently support research and development and secure efficient transformation of their results to final products. Main role by the boost and support of innovations plays demand or procurement fulfilled by public and private sector (European Commission, 2013). PCP and PPI practices are financially supported between others also by the Competitiveness and Innovation Program (CPI) and the EU program Horizon 2020 (Caloghirou, Protogerou and Panagiotopoulos, 2016).

Demand for innovations is inevitable, if the innovations should make sense for companies itself. By the procurement companies can choose to procure product so called “off the shelf” that already exists at the market. In the case, that the desired product is not situated at the market the company can choose to procure innovation. Under the product we can understand goods, services or processes. As innovation can be considered a non-existing product or already existing product containing innovative features (Georghiou et al., 2013). Another way how to look at innovations is to differentiate between already existing innovation not yet used in the certain area/ country or development of the totally new product or research results (Edquist, & Zabala-Iturriagagoitia, 2012a). In case of procurement for innovations that are already in commercial phase the access is quite clear and it is enough to use traditional approaches to innovation procurement. If the companies consider procurement of innovation that are not commercialized or even not developed yet, they are often discouraged by the insufficient knowledge about its procurement or inefficiently developed procurement process.

Our aim is therefore to propose framework for innovation driven supply that would ease the process of procurement of innovations for companies even for innovation solutions that are not developed yet. The framework is based on the procurement structures used in public sector. Public sector uses two basic

frameworks for procurement of innovations: pre-commercial procurement (PCP) and public procurement for innovation (PPI). We suggest that modified version of those public processes can give suitable basis even for private sector. Our research is further based on interviews with managers of companies from public and private sector that already have experiences with procurement for innovations itself and are able to evaluate and critically look at the used processes.

2 Procurement for Innovation and Pre-commercial procurement

In case that companies procure products that are already made and available at the market, so called “off-the-shelf” product that do not need any innovation, they can choose to you regular procurement methods mainly considering price and quality, although there already exist many procuring strategies considering also other product features. On the other hand, companies can initiate demand for something that does not exist at the market yet. In order to be able to deliver the desired solution the supplier need to develop at first. In this case we can observe inevitability of innovation earlier marked as “technology” and, therefore, analogically “public technology procurement” (Edquist et al., 2000). The term “innovation” compare to “technology” covers wider content and the same is true for “Procurement for Innovation - PPI”. It is important to say that in the process of PPI, the main aim is not the innovation itself, rather to solve human needs or societal problems (Edquist,& Zabala-Iturriagaitia, 2012a). The PPI is an important demand side instrument of innovation policy instrument (Dalpé, 1994; Edler, & Georghiou, 2007; Geroski, 1990; Rothwell, & Zegveld, 1981; Aschhoff, & Sofka, 2009; Detelj, & Markovič-Hribernik, 2015; Georghiou et al., 2013; Edquist, & Zabala-Iturriagaitia, 2012a) that increases competitive advantage and growth (Edler, & Georghiou, 2007) and also challenges previously existed practices and skills of

public agencies such as R&D subsidies, fiscal stimuli and so on (Rolfstam, 2012; Detelj, & Markovič-Hribernik, 2015). Demand-side innovation policy instruments are defined as measures aimed at increasing the demand for innovations, improving the conditions for introducing, spurring and spreading of innovations (Edler, & Georghiou, 2007). Public procurement is mostly considered to be a tool for driving innovation (Aschhoff, & Sofka, 2009; Detelj, Jagrič, & Markovič-Hribernik, 2016; Edler et al., 2012; Edquist, & Zabala-Iturriagoitia, 2012a).

PCP was designed to make bridge between scientific knowledge and market through creating a public demand (Rolfstam, 2015). This type of procurement or alternatively “contract” research covers only research and development phase including exploration, design and prototype development. The method refers to the procurement of expected research results and may contain development of a product prototype that does not cover purchase of researched final product or setting of buyer (Edquist, & Zabala-Iturriagoitia, 2012a; PwC, 2011; Lucas, R. et al., 2009; Turkama, P. et al., 2012; Rigby et al., 2012; Meerveld, & Nauta, 2015; European Commission, 2008). Because the result of this process is not the final commercialized product, but at most a prototype of the later product, the process is mostly added to supply side instruments (Edquist, & Zabala-Iturriagoitia, 2012b). PCP is mostly used by public entities in case that any socio-economic problem is identified and the commercially accessible solution does not exist (Lucas, R. et al., 2009).

PCP process is nowadays used mainly by public entities. There are three variations of use. Either is the public organization undertaking PCP for itself or another public organization, or for another private entity with clear public value added (Rigby et al., 2012). In this paper we propose the use of modified version of PCP not only in public, but in private sector as well.

The basic process of PCP can be spread into three phases based on synthesis of papers of various authors (Edquist, & Zabala-Iturriagagoitia, 2012; Lucas, R. et al., 2009) as seen in *Figure 1*.

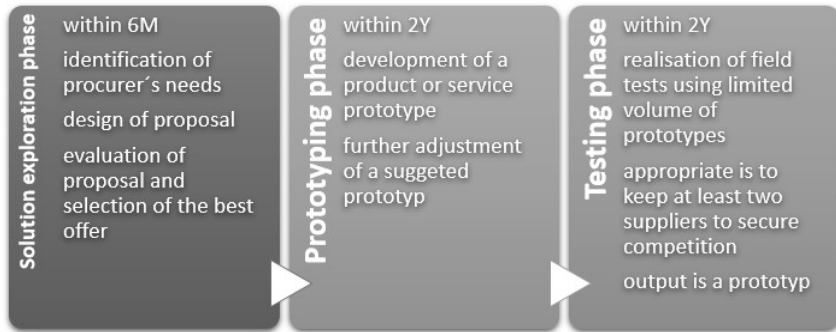


Figure 1 PCP process phases based on synthesis of studies of various authors (Edquist, & Zabala-Iturriagagoitia, 2012; Lucas, R. et al., 2009)

PCP should not be perceived just as policy instrument, but rather as procurement process or framework that can be applicable in private sector, as well. The number of innovations produced by private sector is much higher as those initiated by public sector (Palmberg, 2004; Saarinen, 2005). Therefore, to support innovation uptake the framework of PCP should be applied also by private entities. In this case it is important to consider question of funding through the process that can differ from public procurement options.

Interesting at this place is also to mention portal supported by European Commission TED – Tenders Electronic Daily that presents various tender opportunities presented by public entities across the European Union.

3 Method

The aim of this paper is to present a framework based on modified version PCP process with the aim to foster innovation uptake in Slovakia and simplify the procurement of innovation processes in private sector with the target to reconnect all relevant sector, especially research entities and companies. Following the aim of reconnected environment of private, public and research entities we performed qualitative research using structured interviews with 19 experts from various companies that already have direct or indirect experience with procurement of innovation or innovative solution. The entities where from both public and private sector from Czech and Slovakia.

The structure of interview can be summarized into six points presented in Figure 2.



Figure 2 Basic areas of structured interview

The interview was taken by 19 experts through 2016, where five public procurers, seven external procurers and seven private procurers.

4 Results

4.1 Results from interview

Based on the interview were identified few problems, whose significance is presented in *Figure 3*.

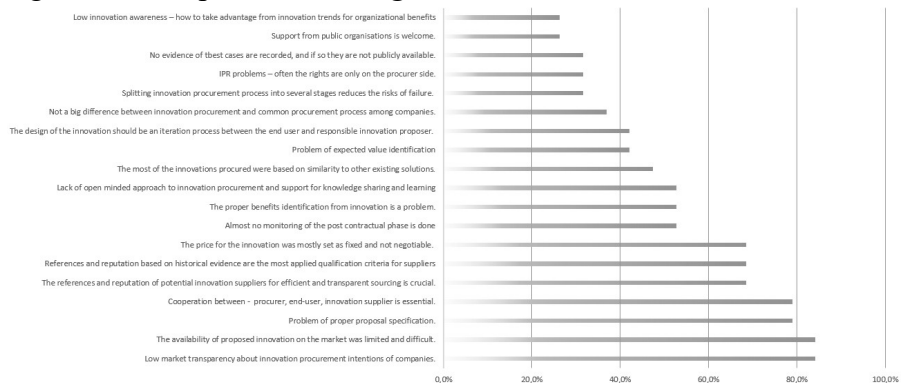


Figure 3 Problems identified in interviews with corresponding significance

Based on the problems identified in interview we can say that the market transparency is the critical issue hindering process of innovation procurement. In the researched case is the lack of market transparency reflected in non-transparent innovation demand and intention for innovation procurement and further identification if the desired solution is already available on the market. Both mentioned problems are the problems of sourcing of the procurement of innovation.

The procurers have and the beginning problems with proper identification of their need and in many cases they rather use external expert for the identification. They struggle also with proper proposal design. Mostly it is based on modification of already known solutions and in cooperation with just their own departments and end users.

One of the most crucial phase is the phase of identification of potential supplier. Company interested in innovation

procurement mostly just check the internet for potential solutions available and ask for cooperation with suppliers in case of previous experience. The lack of market transparency for all possible solutions is in this phase identified as basic problem. The potential suppliers are primarily in private sector approached directly and evaluated based on the previous procurement experience. In the case of solution evaluation, procurers often lack experiences about evaluation of added value and therefore they mainly use cost analysis or CBA method. The process is mostly not divided into certain set stages that could secure risk control and diversification.

4.2 Proposed framework

Based on the public PCP solution for procurement of research and performed structured interview we propose a framework that would secure demand for innovation and therefore it is marked as “innovation driven supply chain”. The framework includes cooperation of various tools, systems and datasets that help to create smart procurement ecosystem driven by innovation. It is based on four pillars presented in *Figure 4*.



Figure 4 Basic pillars of the proposed framework

The main principle should secure that using the framework the generated solutions should be smart and trustful. While nowadays efficient structural, trustful and comparable evaluation of research result is still missing using suggested procurement framework also research entities should be more motivated to act proactively and present quality and useful solutions for current problems.

The framework for innovation procurement is presented in *Figure 5*.

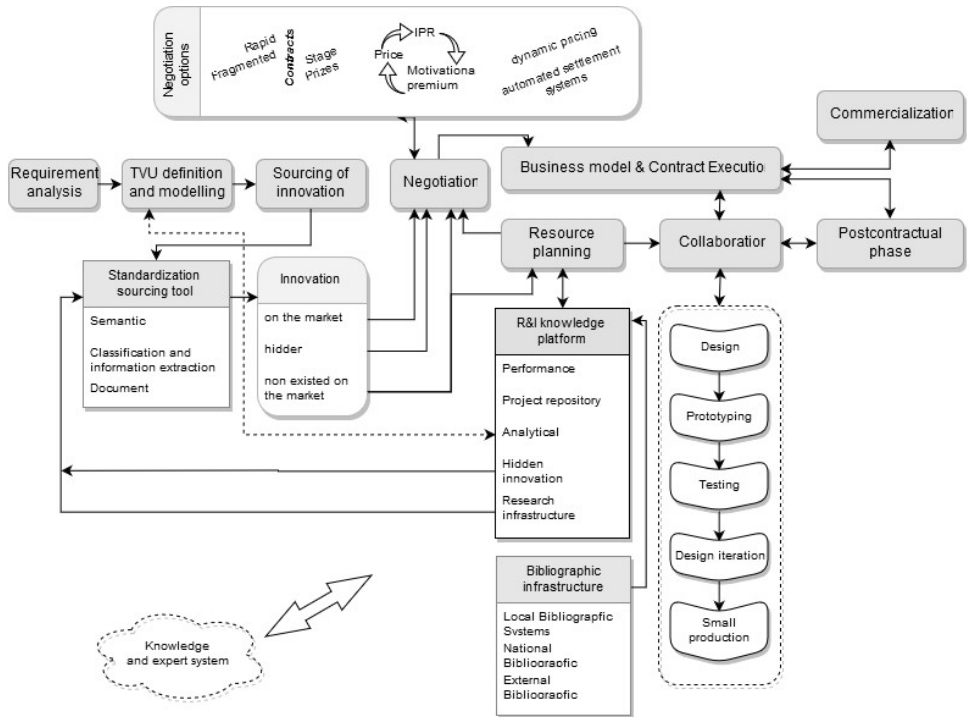


Figure 5 Proposed framework for innovation procurement

At the beginning of the procurement process it is important to correctly identify organisation's needs and requirements and estimate expected value that will be brought by the procurement of suitable innovation or pre-commercial solution. In the next phase is procurer facing proper sourcing of innovation that will be secured by achieving principles of DSM and especially through standardisation of product classification, interoperability of various software and systems, standardisation of business documents (Dráb et al., 2017). The successful negotiation and procurement phase is secured by proper setting of contract and negotiation type. It is important to find solution how to approach more potential suppliers. The negotiation phase is closely

connected to contracting phase and for procurer it is important to choose correct contracting method (presented e.g. by OSTP in 2004) and many others. To be able to achieve desired results in the next phase correct planning of resources is needed. It is important to set right capacity of resources and to be able to allocate this resources.

The proposed procurement framework should help to secure high performance of Slovak and European entities and support competitiveness. It should also lead to more effective public and private spending solutions. Using the proposed approach should lead to higher effectiveness and innovativeness of sourcing decision making and procurement and improve research market transparency.

5 Conclusion

European Commission in their strategy “Europe 2020” stated that according to the new economic challenges one of the way how to be able to stay competitive at the global market is to foster innovation of all kinds of entities active at the market. The strategy emphasized inevitability of improvement and further development of innovation environment. One of the way how to secure and boost innovation taking is supporting demand for innovation. We propose that proper and more efficient process for innovation procurement would secure this goal. In our paper we present results of the structured interview of 19 private and public entities from Slovak and Czech companies that have direct or indirect experience with innovation procurement. Based on this interview we made list of the most crucial problems identified through procurement process. At the basis of analysed PCP and PPI sources and the structured interview we propose a framework for innovation driven supply chain that should be suitable procurement processes of both private and public entities and secure cooperation between all relevant entities.

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THE EUROPEAN UNION AND TURKEY ON REFUGEE CRISIS

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1 Republic of Turkey

The Republic of Turkey has emerged as a unitary nation-state from the ruins of the Ottoman Empire after the Independence War following World War One. The founder of the Turkish Republic, Kemal Atatürk, once had commanded Turkish armies against Western invaders, then, has managed Western-inspired reforms that intend to create an independent, industrialized country and a secular society. By these reforms, Turkey has shifted out of the Ottoman heritage of Eastern traditionalism into Western positivism, at least in terms of superstructures of the country, such as modern universities, democratic elections, the equality of woman and man before the law.

1.1 Turkey and the Western World

In the early period of the Republic, Turkish foreign policy was in a neutral position between the Soviet Union and the Western world. Despite plenty of generous Soviet aids during the Independence War, Turkey has avoided becoming a Soviet satellite. Furthermore, while Western civilization was the fundamental source of Turkish reform program, Turkey has hesitated to develop close relations with Europe due to memories of the past war that made Turkey sceptic about colonial ambitions of Europeans toward Anatolia. However, Soviet demands on Turkish straits after the Second World War compelled Turkey to revise her neutral position in the

international scene (Sadak, 1949). Bipolar world system has been emerging from the clash of interest of Soviets and Western block on how the partition of Germany would be achieved; meanwhile, Soviet demands against Turkey has extended to the Eastern provinces of Anatolia. As a result, Turkey sent troops to United Nations-led Korean War against Eastern Block in 1950, joined NATO in 1952 and formed a defensive organization called CENTO with the United Kingdom against Soviet expansionism in the Middle East.

1.2 Turkey and European Union

In the aftermath of Second World War, mutual security concerns and also Turkish westernization program have created a positive atmosphere between old rivals, Turkey and Europe. From this perspective, relations have continued improving beyond geostrategic interests. To accommodate increased economic assistance, social networks and trade flow, Turkey applied for membership in the EEC in 1959 and entered the Customs Union in 1996.

EU has recognized Turkey as an official candidate country since the Helsinki European Council of 1999. Agreements of the 1990s have had a profound effect on trade relations¹. However, in recent years, the EU membership negotiations of Turkey have stalled due to limits of EU for absorbing new members, disagreements on Cyprus issue, the inconvenience of Turkish and EU governments on the measures that has been implemented against terrorism, and volatility of the Turkish southern sphere in where valid authority centres have been deteriorated by various terrorist organizations and ongoing Syrian Civil War.

¹ Turkey is the EU's 4th largest export market and 5th largest provider of imports (Ec.europa.eu, 2017).

2 The Syrian Civil War

Of has begun in 2011, the clashes in Syria between government forces and various armed opposition groups that backed by regional and global powers called as Syrian Civil War. In short, the Civil War is an extension of the Arab Spring. Thus, before making our mind about the Syrian Civil War, we need to clarify its background. In the Encyclopaedia Britannica, Arab Spring is defined as a round pro-democracy protests and rebellions that have covered Tunisia, Egypt, Yemen, Libya, and Syria (Encyclopaedia Britannica, 2014). Similarly, reflections of the Arab Spring in the literature were initially positive: Paying attention the challenger character of the Arab Spring against the oppressive core of postcolonial regimes which have sustained the legacy of colonial rule (Ismael, 2013). The Arab world is fighting with its own postponed history (Aras & Akarçeşme, 2012). Even authoritarian regimes as distant as China took nervous notice of developments in the region (Bellin, 2012).

What follows the optimistic expectations inspired by the democracy-oriented revolts was the general turmoil. In a row, Egypt had overthrown her dictator, elected an Islamist government and then encountered a coup d'état in 2013. Parts of Libya, Yemen, and Iraq have been under the control of sectarian militias since 2011. Therefore, forces that ousted Middle Eastern dictators have not sought to live in harmony except in Tunisia that has lived in a relative democracy aftermath of the former autocrat Ben Ali's flee.

Since the beginnings of demonstrations, uprisings, coups and foreign interventions; almost everywhere in the soils of the Arab Spring have reached a balance or status quo between former and later dominants of the governments, mainly due to exhaustion of each side. In this way, after the defeat of the Islamic State in Northern Iraq in late 2017, Syria was left as the only major conflict area in the region. In Syria, popular rallies over

economic problems and attitudes of local governors had confronted sudden oppression and thus have converted into an armed insurgency from March 2011 to July 2011 that dated to the formation of the Free Syrian Army (Lucas, 2016). Despite his initial defeats and has been losing the control of the country except the Mediterranean coast and Damascus, the Syrian President Bashar al-Assad has succeeded to regain important urban areas such as Aleppo and Homs by the year of 2017. The Syrian Army's victories have depended on both pro-Syrian forces of Russia & Iran and also the fragmentation of Syrian opposition. The later issue was responsible for the escalation of the struggle into a civil war, in which more than 1.000 armed groups were fighting in December 2013, according to the BBC News estimations. This would make the battlefield more complicated. Therefore, civilians did not have any other chance to survive than escaping unless they would have joined neither in the ranks of the Syrian army or one out of hundreds of belligerents.

2.1 Syrian Refugees in General

The characteristic of the war that has caused the scarcity of safe havens, indeed rebel forces have handled to be holding parts of the capital Damascus even by March 2018, has forced approximately quarter of the whole Syria population fleeing from their homelands since 2011.

While most of them have arrived to the neighbouring countries, more than one million of war victims have crossed into Europe, on their own or with the support of the smugglers, using hazardous sea routes. The Migration Crisis of 2015 will be handled in the further pages.



Figure 1 Damascus on 07.03.2018

Source: Live Universal Awareness Map, 2018.

2.2 Syrians in Turkey

2.2.1 Introduction

As the most advanced and accessible neighbour of Syria, Turkey has become the main shelter for Syrians. The first Syrian war victims have arrived in Turkey in April 2011. This was at a time when positive atmosphere that had been created between the governments of Turkey and Syria on the negotiation table² was not interrupted; meanwhile, early stages of the conflict was not seemingly predictable to change its shape into a prolonged civil war that might be considered the worst after the civil wars in

² Turkey and Syria were on opposite sides in the Cold War era. Syria had claims on Hatay Province. Additionally, Syria had given assistance to the Asala that had committed crimes against Turkish diplomats abroad. Furthermore, Syria had supported PKK, which organization was responsible for serious terror attacks against both military and civil targets in Turkey. The Turkish foreign policy of zero problems has closed each county who replaced visas, organized joint cabinet meeting, besides organizing a joint military drill which were dated in 2009.

Communist Russia (1917 - 1922) and Falangist Spain (1936 - 1939). Hence, Turkey has met the first wave of Syrians with the hope that the situation in Syria would recover in a short time and Syrian guests would return their homelands. However, by the brutal³ policies of Assad government, foreign support⁴ to the opposition and then the large-scale fragmentation of the groups, the Civil War has escalated and created a chaotic environment that not estimated to recuperate soon. Moreover, Turkish - Syrian relations have constantly worsened after Syria brought down a Turkish jet in June 2012, meanwhile Turkey has begun to train one of the main opposition group, called Free Syrian Army.

Therefore, in contrast to initial expectations, the large influx of Syrians into Turkey has started in 2013 and the number of them has increased sharply: 174,596 on January 2013, 1,622,839 in January 2015 and 3,523,237 (UNHCR, 2018). In the circle of the Civil War, Lebanon has followed Turkey by 995,512 registered Syrians, and Jordan that hosted 657,628 Syrians. Thousands of others have separated between Iraq and Egypt.

³ The single party rule of Ba'ath under the presidencies of father and then son Assad was firstly shaken by not mass demonstrations but by the global warming. With some reform propositions, Assad did not seem to deliver a multi-party system and allow a free challenger to his rule. Once his rule looks as durable as it was before, an extraordinary drought of 2007 - 2010 has devastated farm lands and pushed millions to migrate urban areas. In a report of FAO, it was estimated that more than 1 million Syrian's basic nutrition requirements fall into risk (Fao.org, 2009).

⁴ Especially after the situation that the clashes has intensified in the areas whereas civilians substantially evacuated, Syria resembles of hosting a proxy war that funded by the US and the Russian Federation. According to the UN experts, civil wars with foreign interventions depict the worst situation to be solved. That kind of struggles usually tends to persist for 8 years in average.

2.2.2 Legal Framework of Syrians in Turkey

As mentioned before, in the beginning, the Turkish government has evaluated chaos environment in Syria as a temporary situation, and thus simply identified the first comings as “guests”. After the government perceived that Syrians would not be sent to their homes in a near future, Syrians legal status was coded as “temporary protected status”. By the way, Turkish official act is an expression of reluctance to accommodate Syrians in an indefinite long-term, Turkish politicians commonly talk about giving Turkish citizenship to the Syrians.

In sum up, a deep ambiguity continues in the domestic stage of the seven years old issue. Internationally, Turkey is a signatory of 1951 Geneva Convention, with retaining her perspective of “geographical limitation”. Hence, Turkey is obliged to accept “refugees” who only flee from the “events in Europe” (Kirişçi, 2014). Turkish tendency in this decision could be perceived as a desire of limitation the entrance of non - Turkic groups to Turkey permanently because the Republic’s predecessor Ottoman Empire had collapsed amid Arab uprisings during the World War One. In this way, Turkey granted citizenship to the Bulgarian Turks who was under the oppression of assimilation policies that had been launched by Todor Zhivkov in the late 1980s. Moreover, Turkey has accepted Albanian and Bosnian refugees who had fled from the Yugoslavian Civil War. Ironically, despite Albanians and Bosnians do not belong to Turkic peoples, they are determining as “related communities”. At first, they are culturally close to the Anatolian Turks. Furthermore, they were the most loyal nations to the Ottomans in the Balkans during the dissolution of the Empire. On the other hand, according to Kirişçi, the Geneva Convention sets rules about the rights of individual asylum seekers and refugees. For Kirişçi, the situation that Syrians have created in Turkey would

be terminologized as “en masse asylum”, as UN High Commissioner for Refugees Executive Committee decisions and the general international law has established (Kirişci, 2014).

2.2.3 Government Policy

There is any international treaty that impels Turkish efforts to intervene Syrian issue in this extent which sum up with the existence of nearly 4 million Syrians in Turkey. However, Turkey has willingly executed “open door policy” while Syrian masses was pouring into the country. The first reason is that not only Turkey but also any other country or international organization have not predicted the situation in Syria would be deteriorated in a historical scale. Secondly, in spite of the fact that Turkish identity is dominant in Anatolia, Turkey has kinship ties with Syrians due to her Arabic and Kurdish originated citizens in the south-eastern regions. Thereby, Turkey could not neglect the conditions of her citizens’ relatives. Thirdly, the ruling party of Turkey, Justice and Development, has great ambitions to revive glorious Ottoman heritage in the body of the Republic, and hence has seen the Syrian case as an opportunity to demonstrate her power and show Turkish civilization’s merits toward exploited and then neglected former colonies of the Westerners. Finally, the accession talks with the EU have stalled long ago, and the Turkish public opinion has not hesitated to improve relations with the Eastern world which also includes Iran, Russia, and the Gulf States, besides Syria.

2.2.4 Cost of Syrians

In spite of Turkish policies has been drawn by both domestic concerns and historical ambitious, the humanitarian side of Turkish open door policy could not be overlooked. The humanitarian crisis had exposed from Syria made Turkey the most generous country, according to the 2017 Global

Humanitarian Aid Report⁵ Type of Syrians mobility through mid-2012 has been compatible with expectations of the Turkish government and the international community. During that period, Syrians have temporarily stayed in Turkey until the violence finished (Davis, 2015). Unfortunately, only three years later, the number of Syrians exceeded the capacity of refugee camps, and thus they have spread all across the country. According to the current UNHCR statistics, 92% of the Syrians are living outside the camps.

Even if Syrians has benefited government aids, they are actively participating the workforce pool. As usual, immigrants comply with lower wages and conditions, the Syrians as unskilled labours commonly observed to be employed without insurance. This trend might cause rising unemployment rate among Turks. The government has granted Syrians to access whole public services without any kind of discrimination. This would trigger social security expenses, and create stress on, especially health services. War victims from Syria have brought many diseases such as tuberculosis, rubeola, and aleppo boil which had been vanished by Turkish vaccine policies decades ago. Additionally, the birth rate among Syrians is high. By the September 2017, 224.750 Syrian babies were born in Turkey (NTV, 2017). This fact has been stimulating health spending and also concerns about a volatile demographic change at the expense of Turkish majority. Hospitality tradition of the Turks is well known. Racism is far from Turkish minds.

Even the Ottomans were in Sunni character, sectionist struggles in the Empire would be ignored in compare with centuries of religious wars in Europe. However, meeting with a sudden

⁵ In 2016, 99% of Turkish humanitarian assistance was devoted to the Syrian crisis. As a result, Turkey comes behind the US in regard to government donors, whereas her GDP ranks 17th.

migration of millions from a different culture and also with different biological features, many Turkish cities, especially cities alongside Syrian border are depressed. For example, the number of Syrians in Kilis has surpassed the population of the Kilis itself (Kirişci, 2014).

According to many authors that work on the issue of migration, the crime rates among migrants rarely exceed the crimes of the natives in general. On the contrary, either the global perception and national impression tend to develop prejudices toward migrants. On the other hand, even in a First Grade Police Superintendent, PhD. Hakan İnankul's report (Inankul, 2016) defends against the negative attitudes that directed Syrian war victims due to their pretended enjoy in crimes, Syrians' existence in Turkey has brought about additional security concerns. At first, escaped Syrian populated southern Turkish cities have been frequently attacked by terrorist organizations ISIS, PKK and PYD through rockets with the aim of retaliation and unveiling ethnic tension. Secondly, Turkish security forces were highly criticized publicly, accordingly uncontrolled Syrian masses across the country while the series of live bomb attacks have hit Turkish metropolis especially in 2015.

The amount of money that has been spent for the Syrians differs from source to source. Turkish government claimed that Turkey has spent more than 20 billion USD within 8 years, in spite of the UNHCR constitutes 890 million dollar annual requirement for the case. On the other hand, according to facts of EU - Turkey joint action plan papers, Turkey has dedicated more than 7 billion EURO from her own sources by October 2015. Nevertheless, whether the gap between national and international statistics reflects the truth or not, the humanitarian cost of the case is much more important than the material spendings, and should pretty much cover the relations between Turkey and the EU over the presence of Syrians in Anatolia.

3 The Asylum Policies of the European Union

Europe had suffered constant warfare for centuries. Endless struggles have made the continent vulnerable and attractive for Asian invaders for many times. Of has not being immigrated rather than massacred in the ancient times, Europe itself has supplied the newly explored continents with a mass emigration for centuries.

If we accept that the modern European civilization and identity has emerged in Western Europe, the first migration that experienced by the ancestors of modern European Union was Polish workers in the German Empire. Waging a lot of wars between 1871 and 1945, Germany had employed Polish seasonal workers, while the army has been recruiting German factory workers into the trenches. After the destruction of her infrastructure and deterioration of the working population in number during the last war initiative of the country, Germany has welcomed millions of workers from Turkey, Italy and former Yugoslavian states. Surprisingly, for decades Germany has used to implement immigration laws that have been issued in the Third Reich, over governing that kind of mass migration for a long time (O'Brien, 1988). Therefore, the hearth of Europe was not liberal for new settlements outside the continent in the most of the European Economic Community period.

On the eve of a new approach, the European Commision has been accepting the asylum as a fundamental human right by which it is understood that a valid asylum seek would be emancipated from any kind of violation against the proper implementation of the right. However, the European Union could not approach a common asylum policy that having imposed coercively on member states. Despite the Dublin Regulation III was coded to enforce the examination of each asylum seekers, acceptance of the requests seem to be left to the

will of the sovereign states. Moreover, the regulation has not pointed any kind of “masse asylum” that Turkey has dealt with⁶.

3.1 Syrians in Europe

By using various sea routes across Aegean and Mediterranean seas, hundreds of thousands of Syrians have reached Western Europe. Amid steamed discussions, over 1 million Syrian asylum seekers have derived the legal refugee status. Meanwhile, France and the United Kingdom are familiar with non-European migrants, such as Algerians and Pakistanis, the waves of Syrians were met by public resistance at the Middle Europe. In the European context, the burden of refugees has left to the Germany and Sweden along with the countries lies on the northbound migration route, such as Hungary. The 2015's disproportionate distribution of refugees has triggered the concerns about the possibility of arising unprecedented obligations that would have to be carried by other countries. In reaction, for instance, Denmark⁷ has reintroduced border checks in the area of free movement Schengen for many times. In response to crossing refugees from Croatia, feeling overburdened⁸ with the refugee masses, Hungary constructed a border barrier along the border with another EU member country, Croatia. Likewise, distrust to the European common borders defence and the threat of illegal immigrants was

⁶ Despite the Dublin Regulation has obliged first entered member states to evaluate asylum requests, only 5,6 percent of applicants have been sent to the first country that they had entered the EU (Luyken, 2017).

⁷ Denmark's reintroduction of the border controls is the famous one in Schengen era due to it has been implemented once before 2011. In addition to Denmark, by November 2017, France, Austria, Germany, Sweden, and Norway is using the right of temporary reintroduction of border controls, granted by the Schengen Borders Code ("Temporary Reintroduction of Border Control", 2018).

⁸ In the EU, Hungary had the highest proportion of asylum applications in regard to population, in 2015 ("EU migration: Crisis in seven charts", 2016)

overwhelmingly emphasized by the supporters of the Brexit referendum that resulted in favour of leaving in June 2016. The far right and nationalist parties have gained strength in the elections and opinion polls.

3.1.2 Syrians in Germany and Sweden

The coalition talks in Germany have finally ended with the ratification of Angela Merkel's fourth term as chancellor of Germany on March 14, 2018. The election that has led to the long negotiations was held in September 2017, so Merkel was sworn after a half year from the elections. The long lasted negotiations has begun with the issue of the migration crisis that mainly caused by Syrians. Since emergence of the crisis, Merkel - under the fire of the opposition due to her open door policy toward war victims, and flames not only come from pro-nationalist AfD (Alternative for Germany), but also Christian Democrats of Bavaria, the southern province of the Federal Republic that has become the entrance gate for the migrants - was constantly losing ground.

By keeping her promise of welcoming asylum - seekers, Angela Merkel was shining as the uncompromising defender of European values ("The indispensable European", 2015). As in compliance with upholding European virtues, perhaps the demographic parameters would have shaped the positive attitude of the Merkel government over migrants. The median age for Germans is 47.1 (CIA, 2018). Germany has 173.000 empty vocations that already left unemployed with the lack of mathematicians and computer engineers, Sweden, in where the median age is 41, has the same problem, not because as old as Germany but due to younger Swedes do not prefer to work as unskilled labour. According to the Economist, the reach of over 1.2 million asylum seekers in the Baltic region is an unpredictable wealth in the condition of demographic degeneration of the Germany and Sweden ("More toil, less

trouble", 2015). Hence, It was not a surprise for experts that Sweden follows Germany with the number of refugees she has compromised.

3.2 Turkey - EU Relations over Syrian Refugees

3.2.1 Before the Readmission Agreement

In 2015, the EU has dealt with masses of refugees and migrants, that most of them were Syrians. The number of people Europe has met was more than 1 million. They have mainly attempted to reach wealthy northern countries. Nonetheless, the provisions of the Dublin Regulation resulted in overcrowded en route Balkan countries, which were incapable to meet basic requirements of the crisis. In that manner, the EU acted quickly to take measures to secure its integrity and abolish the feelings of injustice among member states.



Figure 2 Syrian Asylum Applications.
Source: UNCHER, 2018

The first measure was setting partnership with Turkey to prevent illegal moves into the EU, and secondly more than a hundred thousand asylum seekers were relocated between EU states. The leading power of Europe, Germany has carried the biggest portion of the burden. Germany was followed by Sweden, which registered 160.000 Syrians in 2015, which makes Sweden having the most numbered refugees per capita in Europe.

Turkey and the EU have signed the Readmission Agreement in December 2013 and the Agreement become valid on October 2014. The EU has offered triggered accession negotiations for the Turkish entrance to the EU and visa liberalization in the exchange of Turkish efforts to accommodate illegal migrants. The Agreement states about preventing illegal crossings toward Europe, but everyone knows that once Turkey continues to hold illegal cross, she will not resend those masses to their homelands. Therefore, it is clear that Turkey takes responsibility to meet the requirements of more than 3 million foreigners for an indefinite time. While Turkey was meeting her obligations unconditionally, the EU did not continue the accession talks and did not replace the visas, since reasoning the illiberal applications of the Turkish government, such as extending state of emergency. In contrast, it is hard to expect from a country to devote herself democracy meanwhile hosting millions of war victims, and coping with several terrorist organizations, which have gained strength due to the abolished state authorities across the Turkish border.

3.2.2 After the Readmission Agreement

In accordance with my review on the Readmission Agreement and additional statements related the Agreement, it is seen that the readmission would overwhelmingly be evaluated as an relief effort of overpopulated Greek islands at first, and secondly an aim to prevent the re-emergence of migration routes across the Balkans that started from Greek islands.

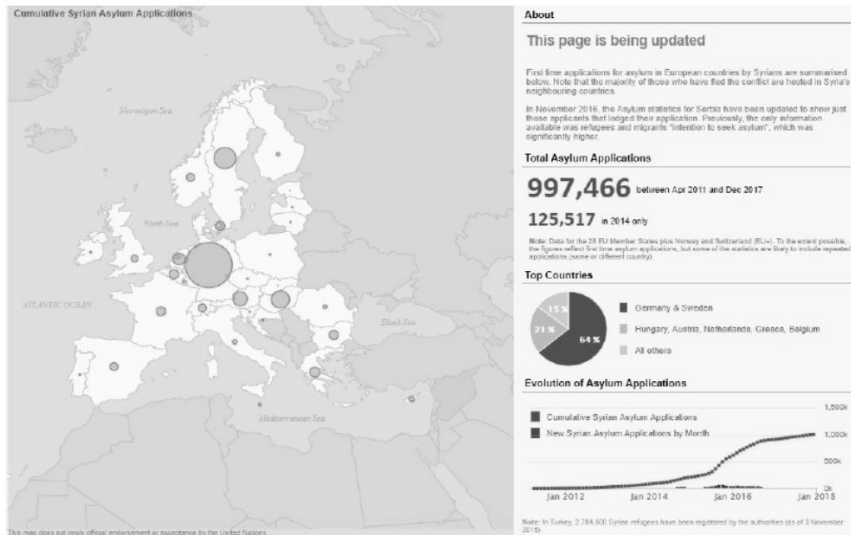


Figure 3 Cumulative Syrian Asylum Applications.
Source: UNCHER, 2018.

The article of the Agreement about resettlement of refugees points asylum seekers who have settled in Turkey has been bounded by the principle that in exchange of Turkish acceptance of illegal immigrants who use Turkey as transmit country before the Greek islands. Additionally, the Agreement does not only include illegal asylum seekers, in which their presence might be considered as “illegal war victims”, but also economic migrants. In spite of the economic conditions in Syria and other war-torn countries were not prosperous even before the insurgencies, the Balkan route did not use to be crowded by economic migrants in the history. The economic migration route toward Europe has begun from the southern shores of the Mediterranean, by which sub-Saharan economic migrants have sought to reach Italy. To sum up, because it is often difficult to make a frank distinction between asylum seekers and economic migrants, the Readmission Agreement gives the EU a flexible determination authority to select its war victims and keep away uncontrolled migrants from the European soil.

3.3 The Perils of the Readmission Agreement

The EU has left Turkey with millions of Syrians, deprived Turkey from her steaming out routes, by which at least the migrants and Turkey had an opportunity to engage European public opinion even it was illegal. Turkey is not the responsible side of the Syrian issue. In contrast, Turkey has been lifting the greatest amount of the Syrian burden since 2011. The current situation will create a widespread distrust among Turks against the EU.

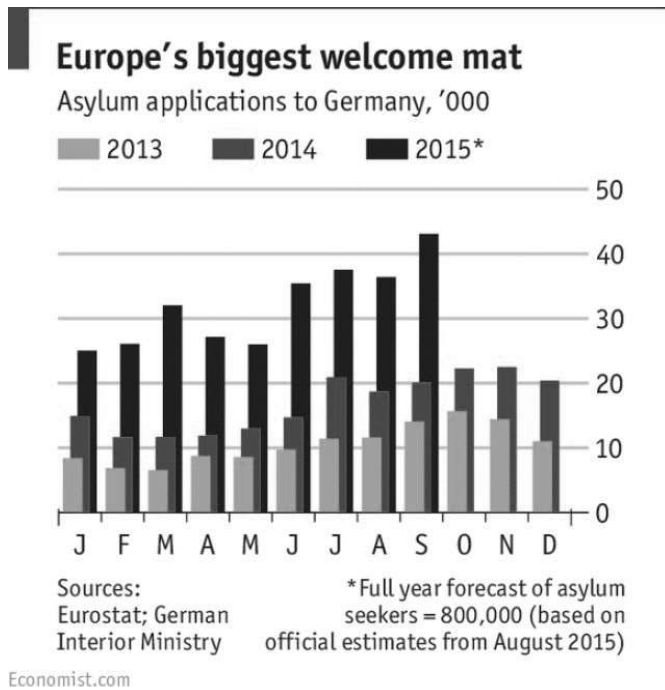


Figure 4 Asylum applications to Germany
Source: The Economist, 2015

Moreover, recent history shows that sudden changes in demographics have a potential to cause unsteadiness, such as in Libya, which country had reached a similar agreement with the EU to hold sub-Saharan migrants before Italian coasts. Then

many of these asylum seekers who were living in detention camps under the worse conditions, were speculated to be easily recruited as mercenaries during the Civil War in Libya.

4 Conclusion

Turkey and the EU have bold, rich and rarely acidity relations. Ottoman conquests up to Vienna and then colonial ambitious of the Europeans over Anatolia have been replaced by tight bounds achieved through the military alliance in the frame of NATO, economic partnership that deepened with Customs Union and strategic partnership that stimulated in the common patrolling of the Aegean Sea to prevent illegal migrants from the European soil. The majority of the Turkish public opinion determines the Readmission Agreement as escaping of the EU to take responsibility in the humanitarian crisis of the Syria, the country located in a region in where almost all borders was drawn at the round table settled with the Great War victors, by Sykes-Picot Treaty. However, at least in the mean of military intervention, The EU countries, except the UK, have not intruded the affairs of the Middle East since Suez Crisis of 1956. In this sense, the EU might innocently manage to assert its point of view that in spite of sharing any cultural, linguistic, religious and geographic affinity with the region, the European countries are hosting more than 1 million Syrians, and almost all of them is granted to enter labour pool. Additionally, the argument that Germans have welcomed to only a selection of talented and educated Syrians has turned out as a wrong claim according to, when Angela Merkel has pledged to put an annual quota for refugee entrance in Germany thereafter she could not convince even her close ally, the Bavarian Christian Democrats, about the validity of her open door policy. Although Germany actually is in a condition of lack of skilled labour and she will able to develop indefinite raw human sources of Syria in favour of her needs, the refugee favoured policies of Merkel could not be explained only the companies calls for more efficient refugee policy to recruit

much working age population. On the contrary the reality is that while France and the UK have an opportunity to supply their labour pool with the migrants from their former colonies, and the other giant EU economies of both Italy and Spain are in long - term stagnation with no more need to foreign workforce, we cannot explain German & Swedish generosity to Syrians solely with their merits based on humanity. The claim of the author of this paper will not commit the EU in view of the presumption of innocence for Turkey. At the beginning of the Syrian problem, Turkey with self-assurance has refused the assistance of the UN. Of having been a kindly warm host country of Arab victims, Turkey had desire to prove herself as a regional power in the eyes of Middle Easterners and was willing to play her role of guardian of executing minorities in absolute dictatorships. Regardless to Turkish and also world's expectations in the early months of clashes as mentioned before, the scale of the war has been escalated and thus, the burden of Syrians on the Turkish shoulders has climbed sharply from tens of thousands to nearly quarter of the whole Syrian population before the war.

On the other hand, the world and the EU should realize that Turkey was not the only country that implementing her national interests on the Syrian theatre. The Western diplomacy has taken direct position along with Syrian opposition, and in spite of managing to put out the blaze, has imposed arms embargo on the Damascus government while supporting opposition forces. Therefore, Syria called the assistance of Russians which was resulted in permanent deployment of Russian ground forces in various bases that supported by aerial and naval units. Western decision makers would agree with the current situation that tremendously threatens Western interest in the region.

Turkey, with her millions of refugees with an unprecedented future, has been struggling to cope with the conditions that the Crisis has created. Not only the direct expenditures toward Syrians, but also general security concerns amid uncontrolled

flow of the refugees has challenged the economy that Turkish GDP has firstly shrank by 1,8 % in the third quarter of 2016 since 2009. Syrians have indefinite permission to enter labour market and when this mass is considered as low cost working force, it would be expected an slight improvement in parameters in the future. However, economy is only a minor issue and in reality Turkey does not require more foreign workers than Italy or Spain need. More importantly, Turkey is in a hazardous voyage, those routes to an uncertain future. Nearly for a century, Republicanism in Turkey has created a substantially dynamic society which is open to Western values. For example, most of the developments in accession talks between the EU and Turkey was recorded during the rule of Justice and Development Part, in which Islamic values and traditional customs predominantly prevails. Nevertheless, Syrian masses, who has come from a country that totally deprived from democratic practice and governed by an absolutely totalitarian dynasty like government for nearly half century will affect on Turkish conservatism. While Germany tries to avoid her former faults to allow new migrants employing before completing their training that includes German language and culture, Turkish side does not care the situation as serious as Germans focusing on. Lack of enough funds, incomparable numbers of Syrians with the rest of the world, prejudices on Syrians or government's negligence; whatever the reason is, Turkish society is on the edge of deterioration, which will lead to xenophobia and ethnic tension. To ensure the durability of a stable neighbour along her most strategic borders, the EU has define a common policy to take more responsibility for candidate country Turkey, by not funding more money, but by supporting Turkish efforts to create secure zones in the northern Syria, review the Readmission Agreement and update it to allow gathering more Syrians to the Europe. In which way would the Europeans react, as if Turkey closed her borders for war victims? Is the burden of humanity invaluable to be shared? The current Readmission Agreement would be reinterpreted under the light of these questions.

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THE CLUSTER ANALYSIS OF MORTALITY ON CARDIOVASCULAR DISEASE COMPARING SLOVAKIA AND SLOVENIA AT THE REGIONAL LEVEL

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1 Introduction

At the present, noncommunicable diseases such as cardiovascular disease (CVD), neoplasm or diabetes represent a threat for human health and, on a global scale, these chronic diseases are neglected despite growing awareness of their serious consequences. CVDs are among the most common causes of death in all European countries, especially in Slovakia (Svihrova, 2016). Recently, there has been a reduction in the incidence of morbidity and mortality in CVD not only because of preventive measures but also for progress in health technology and interventions (Kamenský & Murín, 2009; Tousoulis, 2017). Due to medical progress and the quality of health care in recent years, the mortality rate of patients with acute incidence such as heart attack or stroke has fallen sharply. It is a great success, but it also brings new challenges. For example, a patient with a large heart attack, who mostly died in minutes or hours at the beginning of the century, can now overlive thanks to an acute medical emergency or new health technology. However, the patient subsequently suffers severe heart damage, which in the course of months or years will result

in chronic heart failure. Mortality rates for acute cardiovascular incidence have fallen in recent years, but unfortunately, the incidence of chronic heart failure is rising. In practice, this means that medical professionals are able to save more and more people considering acute heart failure. This success is met by the fact that these individuals are subsequently becoming chronic patients with a very poor prognosis of further survival. The results of another survey conducted by Slovak respondents confirm also the low level of awareness of the problem of CVD (Magurová et al., 2011). As noted above, despite a significant decline in recent decades, cardiovascular disease remains the most common cause of mortality in most advanced worlds, and at the same time increases the incidence of risk factors that increase the incidence of cardiovascular disease. Although the situation improves, these diseases account for about one third of all deaths in OECD countries per year.

2 Theoretical background

According to available information (OECD, 2017), expenditures on health achieved for the year 2016 average value 4,000 dollars per person adjusted for purchasing power. Health spending represents 9 % of gross domestic product (GDP) in the OECD, with the United States moving from 4.3 % in Turkey to 17.2 %. In all countries except the United States, government systems and mandatory health insurance are the main financial measures in the area of healthcare. The deterioration in the health status of the population and the growth of chronic or genetic diseases consequently mean increased expenditure on different forms of drugs over a longer time period, which negatively affects the burden on the health system. The field of science and research in the health system is advancing and introducing new innovative technologies and treatments, and also increasing healthcare spending. The question is whether the increase in healthcare spending also affects the quality of life and if the more efficient allocation of financial resources will result in improved health

status of the population at a stable ratio of health expenditure to GDP (Sidor, 2010). In the context of the beneficial impact of higher healthcare spending by inducing lower mortality, these changes are desirable. On the other hand, however, the rapid growth in healthcare expenditures applies a load to public systems. According to the OECD recommendations, if the countries do not receive the necessary reforms in the foreseeable future, the economies of developed countries will be unbearable and unsustainable by 2050 (OECD, 2015). According to other OECD statistics, purchasing power parity has risen by 7 % compared with 2012 in Austria, by 11 % in the United States. And as the population grows, the OECD estimates that while 6 % of GDP in healthcare, it will be 9 % in 2030 and 14 % of GDP in 2060 (Grman, 2017; EC, 2016). The increase in healthcare spending is caused by the new technologies, higher expectations of patients, and by the increasing needs of the aging population as well as the deteriorating lifestyle of the population (OECD 2015).

According to World Health Organization statistics (WHO, 2017), noncommunicable diseases generally cause up approximately 40 million deaths annually, whereby 15 million of them die at working ages from 30-69 years. The population trend of CVD plays a key role in social and economic consequences (Stuckler, 2008). The incidence of heart failure hospitalization in almost all countries around the world has risen sharply (Korda et al., 2016, Dukát & Baráková, 2006, Mensah & Brown, 2007). This leads to problems of sustainability of public health and the burden on the economy of all systems. Treatment of CVD and the cost of their hospitalization or prevention are among the most costly diseases in recent years (Suhrcke, et al., 2006; Schofield et al., 2013). According to a survey in Australia, due to early retirement of individuals caused by CVD problems there is a loss of GDP in the country of over 740 million dollars per year (Schofield et al., 2013). As the number of diagnosed CVD is unfortunately growing and developed countries are

threatened by population aging, in the long time horizon it is not realistic to maintain a stabilized trend in financial expenses of medicines in the sense of demographic development or the use of new diagnostic methods (Balážová VSZP, 2016). Social inequalities in the health have become also a major issue not only for epidemiologists but also for sociologists. According to studies (Elo, 2009; Glymour, 2014; Walsemann, 2016), socio-economically disadvantaged people assumed a higher risk of heart disease. As a consequence, one of the possible alternatives for reducing the global burden of CVD is the elimination of inequalities in the socio-economic position of individuals in the fight against cardiovascular disease. From a social point of view, education also plays a significant relevant role in the prevention of CVD (Korda et al., 2016; Gavurova et al., 2017), what is confirmed also by the Swedish study (Tiikkaja et al., 2009) where authors discover a relationship between female respondents expressing influence of education on risk persistence of CVD mortality. Poor labour conditions in the labour market and subsequent unemployment can affect and increase the risk of mortality. Individuals suffering from CVD problems cannot participate in the labour force in the long run, which during the period leads to unfavourable impacts on both the individual and the state itself and its economy (Schofield et al., 2013).

For this reasons we conducted a plot of Slovakian and Slovenian regions to illustrate their actual mortality and economic position and differences of the year 2016 (Figure 1). This plot compares all individual regions of Slovakia and Slovenia and represents relation of their mortality status with selected socio-economic factors including unemployment and regional gross domestic product per capita (GDP) in Euro. Slovakian regions are presented by green colour and Slovenian regions by blue points. The bigger is the point, the higher economic the higher is reached economic performance.

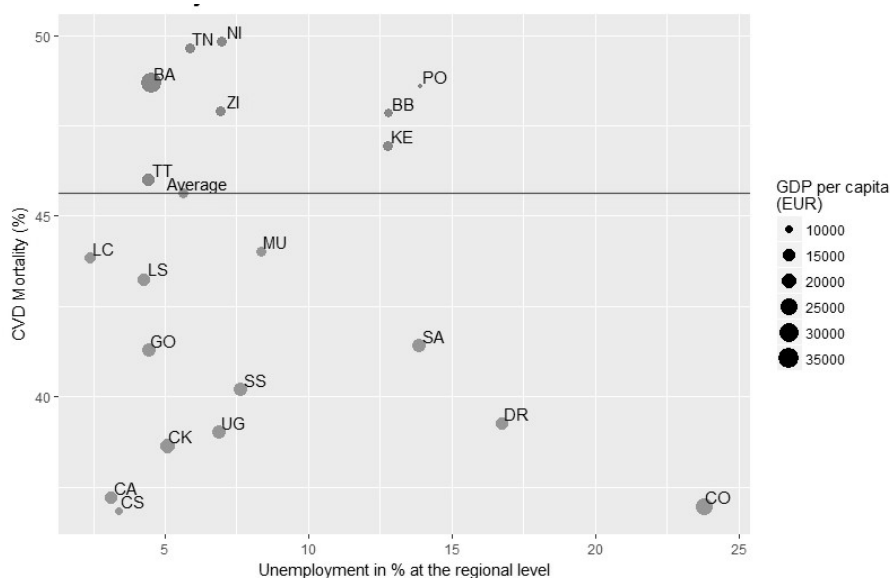


Figure 1 Relation of mortality on CVD, GDP per capita and unemployment rate in given region.

Source: own processing according to DATAcube and SI-STAT Data Portal.

According to health status, from Fig. 1 we can consider worse position of Slovak regions as compared to regions of Slovenia, which all of them achieve the highest mortality rate caused by CVD. Average mortality rate all examined regions reaches 45.63 % on total mortality in given country. Even this rate is higher than in other EU countries. Within the meaning of total deaths for 2016 in Slovakia, in the Nitriansky region (NI) die almost a half of residents (49.84 %) in consequence of CVD. In positive way the lowest mortality rate on CVD we can find in Slovenian regions Central Sava (CS – Zasavska) for 36.84 %, Central Slovenia (CO – Osrednjeslovenska) 36.97 % and Carinthia (CA - Koroška) for 37.21 %. We cannot say that higher unemployment rate causes raising mortality rate on CVD as well as higher GDP per capita in given region. This is determined by a number of socio-economic, health and environmental aspects. For these reasons, it is very important to know the risk factors that affect the development of heart

disease. Of course, apart from socio-economic factors, the risk factors include the individual's lifestyle, elevated cholesterol and blood sugar, hypertension, smoking, inadequate physical activity, overweight and obesity. Individual risk factors have been observed in most people, with a gradual link between risk factors and overall cardiovascular problems. In this sense, the resulting effect of multiple risk factors is not additive but multiplier. For these reasons, special attention needs to be paid to minimizing the effects of these health risk factors on health, which vary not only between countries but also at local level and with varying intensity. The aim of this study is to analyze the current state of mortality caused by CVD in the country Slovakia and Slovenia, and to reveal the differences in CVD in relation to selected socio-economic factors at the regional level. The next chapters provide a detailed description of methodology and research results

3 Methods

The aim of this study is to reveal differences in mortality caused by CVD in Slovakia and Slovenia at regional level by using multivariate statistics including Factor Analysis and Cluster Analysis. We perform a comparison of the current mortality situation in the Slovak and Slovenian regions, taking into account the selected socio-economic factors.

In the empirical part of this study for the comparison of disparities in mortality on CVD between Slovakia and Slovenia in their individual regions we apply multivariate statistics - Factor Analysis following Cluster Analysis. A similar approach was used by authors Kopecká & Jindrová (2017). The Factor analysis is a multidimensional statistical method that focuses on creating new variables and reducing the amount of data with minimal loss of information. It tries to explain covariance between the variables. Factor analysis is multidimensional statistical method explaining mutual linear dependence of

observed variables by the existence of lower number of unobservable factors called as common factors (Škaloudová, 2010). Estimates of common factors are referred to as factor scores. The Cluster analysis aggregates data into common groups based on similarity. Data is represented by its characteristics, we get a k-dimensional vector. The clustering analysis results in the creation of a dendrogram (hierarchical tree cluster). The essence of the cluster analysis is formation of clusters, mainly on the basis of similarity, or dissimilarity of clusters, while objects in the cluster are as similar as possible, and clusters are as dissimilar as possible (Trebuňa & Halčinová, 2011; Sebera, 2012).

Inputs for Cluster analysis may represent 1) factor score values, or 2) consider normalized data and calculate distances between examined individual regions. The most frequently used metrics for the calculation of the distance within the Cluster analysis is the Euclidean distance given by the formula:

$$d_{ij} = \sqrt{\sum_{k=1}^n (X_{ik} - X_{jk})^2} \quad , \text{ where } X_{ik} \text{ and } X_{jk} \text{ are vectors of similar}$$

number of items. (1)

In this study, we apply the cluster analysis by means of Ward's method. Ward's method is the most commonly used clustering method, which has the advantage of generating clusters of comparable magnitude, and eliminates the negative consequences resulting from chaining objects in individual clusters compared to some other methods (for example, closest neighbor method). The method consists in minimizing within-cluster variance and maximizing between-cluster variance. For this reason, this method is used in this study.

Given that the analyzed indicators are not expressed in the same unit of measure, it is necessary to calculate the correlation matrix among particular regions from normalized data.

Subsequently, we use the statistics Kaiser, Meyer, Olkin (KMO), of which value is higher than 0.5, which proves the correlation in the data and suitability of the use of factor analysis. In this paper, the Cluster analysis is created for the year 2016 by the comparison of 8 Slovak and 12 Slovenian regions, while necessary data were obtained from the databases DATAcube (Slovak statistics) and SI-STAT Data Portal (Slovenian statistics). Considered are following variables of the model (Table 1).

Table 1 - Description of variables. Source: own processing

x1	Mortality on CVD – The share of mortality in individual regions caused by cardiovascular diseases on total mortality in percentage.
x2	Live births – The share of Live births in individual regions on total live births in percentage.
y1	Unemployment Rate - indicator refers the number of unemployed people as a percentage of the labor force. Unemployed people are those who report that they are without work, that they are available for work and that they have taken active steps to find work.
y2	GDP per capita - Annual percentage growth rate of Gross Domestic Product of individual regions at market prices based on constant local currency in Euro.
c1	Secondary education - The share of graduates in individual regions with the secondary education on total secondary education by the 25-64 years old, in percentage.

4 Results and Discussion

According to our results, the Measure of sampling adequacy index (MSA) of the statistics KMO is higher than 0.5, which means that in this case, it is suitable to use the factor analysis. By the calculation of Eigenvalues of correlation matrix (2.839; 1.159; 0.849; 0.086; 0.065) we have found out that two own numbers are higher than 1; therefore, as suitable number of factors are chosen two factors (Figure 2). From the results of this factor analysis it is clear that the first factor explains almost 57 % of total variability and the second factor explains almost 23 % of total variability. The percentage of remaining factors on

the variability is relatively low, so we can state that for the explanation of original variables, it is necessary to use two factors, by which we are able to explain almost 80% of total variability.

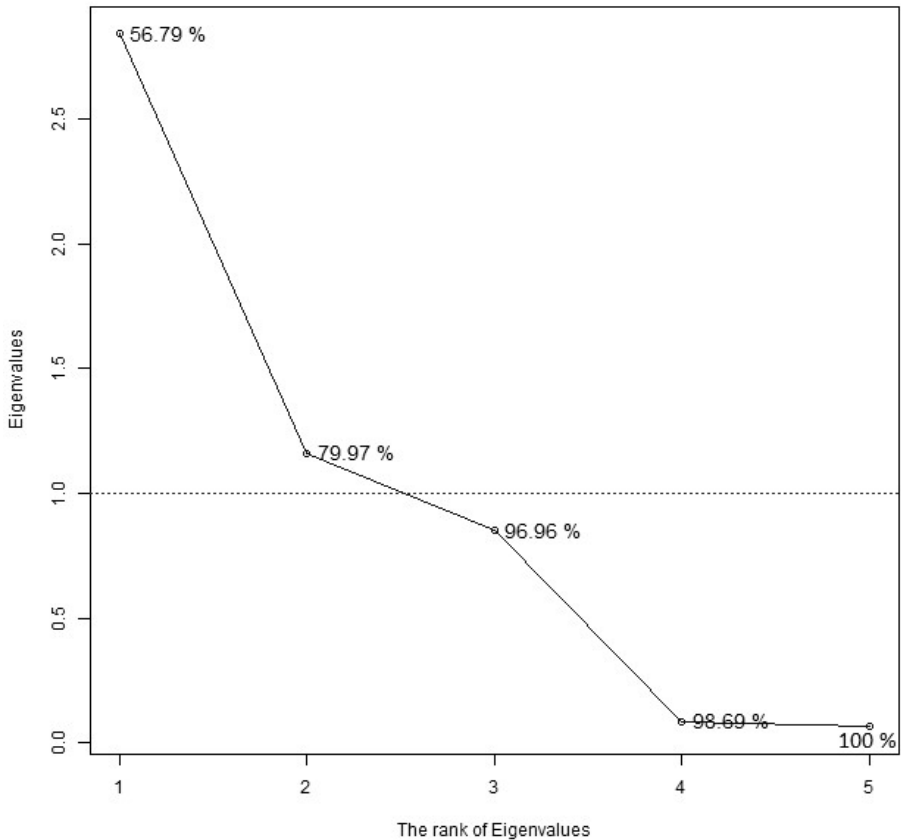


Figure 2 Estimate factors by Eigenvalues of correlation matrix. Source: own processing.

We continue with the Factor analysis directly with the rotation VARIMAX, by means of which we can estimate positive or negative correlation of the indicator with one factor, and subsequently we can calculate the factor score. The results of

this analysis are two factors and their load called as factor saturation, is introduced in Table 2.

Table 2 - Factor load after rotation VARIMAX. Source: own processing

Variables	Factor 1	Factor 2
x1	0.16	<u>-0.84</u>
x2	<u>0.97</u>	0.05
y1	<u>0.91</u>	0.10
y2	0.26	<u>0.68</u>
c1	<u>0.97</u>	0.00

The Table 2 indicates that after the variation VARIMAX, it is possible to assign each variable as positively or negatively correlating with one of two factors. Factor 1 can be defined as a factor to which positively affect the variables x2, y1 and c1. Factor 2 is affected by negative variable x1 and positive by variable y2. While maintaining two factors, the first one shows the highest load at the variables x2 and c1 (0.97) and on the contrary, the smallest load at the variable x1 (0.16). The second factor shows the highest load of the variables x1, y2 (-0.84; 0.68) and the zero load at the variable c1. On the basis of results of factor load, we can interpret the first factor 1 as the factor of socio-economic status of region (including the variables: share of graduates with secondary education; the level of unemployment; and the number of live births in the region). The second factor can be interpreted as the level of health status associated with the economic performance of the region (factor including the variables the share of deaths caused by CVD on total mortality and regional gross domestic product per capita).

The next step of factor analysis is the estimation of the factor score to determine the value of the common factors for the individual observed variables (Škaloudová, 2010; Sebera, 2012), which are shown in Figure 3. According to Figure 3 we can see that factor 1 speaks of the socio-economic status where the

region Central Slovenia (Osrednjeslovenska) reached the highest ranking, this region supports the education sector the most, but the unemployment rate is also the highest. In view of the second factor 2, which represents the level of health status in relation to the performance of the region, the best results were recorded also in the region of Central Slovenia (Osrednjeslovenska) with the lowest mortality rate on CVD of all the compared regions in Slovakia and Slovenia as well as the highest level of GDP per capita in this region. On the contrary, the worst performance of the region's economy and high mortality rate on CVD ranked Slovak region Prešov (PO) on the last position.

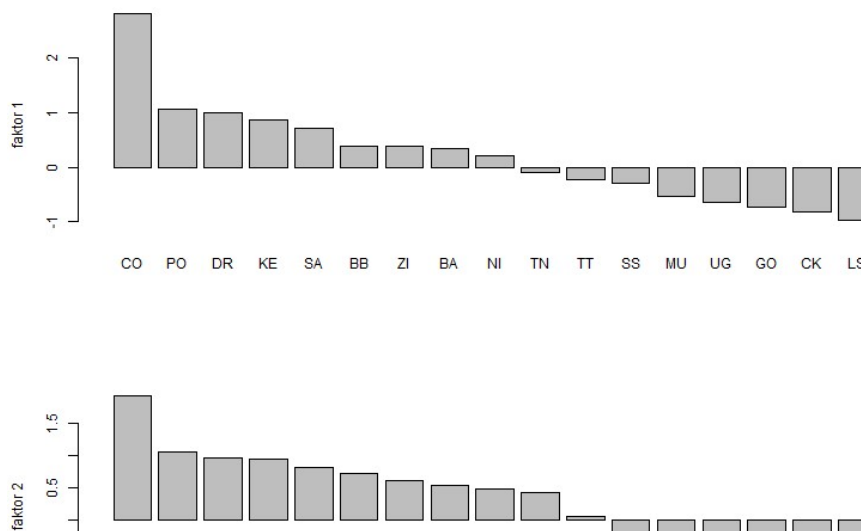


Figure 3 Factor Score. Source: own processing.

These factor score also represent inputs to the upcoming Cluster analysis and we use the above-mentioned Cluster analysis using the Ward's method. On the basis of graphical output (dendrogram), as optimal number of clusters we consider three clusters. This statement is also supported by Ratkowsky index used for the determination of optimal number of clusters and its value is 0.3956, by which it is recommended to consider 3 clusters, which is shown also on the Figure 4.

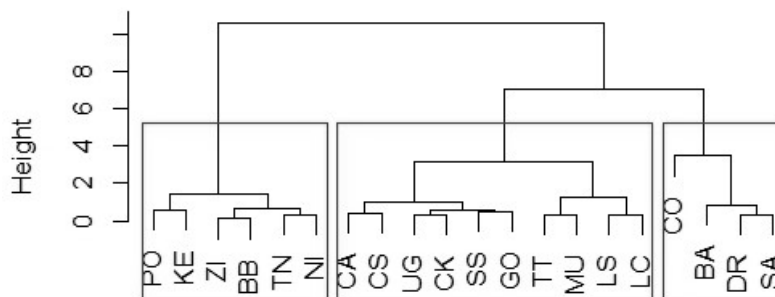


Figure 4 The Cluster analysis of Slovak and Slovenian regions in the form of Dendrogram.

Source: own processing.

According to results of the cluster analysis (Figure 4) we consider 3 clusters or groups of examined regions. The first cluster with similar characteristics contains region in Slovakia Bratislavský (BA) and three regions in Slovenia: Central Slovenia (CO - Osrednjeslovenska), Drava (DR – Podravska) and Savinja (SA – Savinjska). In this cluster, mentioned countries are comparable in the indicator Mortality on CVD (x1) with average value 41.57 %, subsequently in the indicator Live Births (x2) (0.172) as well as in the indicator Secondary education (c1) with average value 0.189. Of all the examined regions, the regions in this cluster are characterized by a relatively high GDP per capita (23706.2 in Euro). On the contrary, regions of this cluster reach the highest level of unemployment in with an average value of up to 14.733 %.

Second cluster includes regions of Slovenia Mura (MU – Pomurska), Carinthia (CA – Koroška), Central Sava (CS – Zasavska), Lower Sava (LS – Posavska), Southeast Slovenia (SS - Jugovzhodna Slovenija), Upper Carniola (UG - Gorenjska), Littoral Inner Carniola (LC - Primorsko-notranjska), Gorizia (GO – Goriška), Coastal Karst (CK - Obalno-kraška) and one region in Slovakia Trnavský (TT). Comparable values

for this group of countries are in the indicator Live Births (x2) and Secondary education (c1) with the average values of 0.055 and 0.044, which are the lowest among the other clusters. Indicator x1 achieves different mortality on CVD rates between regions of this cluster with a lower average value 41.025 %. This cluster is further characterized by the lowest unemployment rate of the population, almost 5 %. The GDP per capita of these regions achieves in average 15 394.5 in Euro.

In terms of third cluster, this group consists only of regions in Slovakia: Prešovský (PO), Košický (KE), Žilinský (ZI), Banskobystrický (BB), Trenčianský (TN) and Nitrianský (NI). We observe almost identical values in the Mortality on CVD (x1) with an average of 48.456 %, which is the highest among the other clusters, and where the highest share of population dies on CVD. Similar values can be found in the Live Births (x2) with an average of 0.127. Regions from this third cluster reach in the indicator Unemployment an average value 9,867 %, and in the indicator Secondary education is the average value 0.133. However, this cluster is characterized by the lowest GDP per capita with a mean of 11373.8, indicating the weakest economic performance among other examined regions.

Table 3 - The average values of indicators in individual Clusters. Source: own processing

	Cluster 1	Cluster 2	Cluster 3
x1	41.577	41.025	48.456
x2	0.172	0.055	0.127
y1	14.733	4.999	9.867
y2	23706.2	15394.5	11373.8
c1	0.189	0.044	0.133

When comparing the three clusters shown in Table 3, we can summarize that the highest average level of the first indicator Mortality on CVD (x1) is noticed in a third cluster showing that most patients (almost 50%) die due to CVD in Slovak regions

except regions BA and TT. On the contrary, the smallest average rate of the mortality of population we can see in the first cluster (41.58 %). The indicator Live Births (x2) shows the highest level in the first cluster of regions (BA, CO, DR, SA) (17.2 %), that means in regions of larger cities where economic performance (y2) reaches the highest average 23,706.2 in Euro per capita. Even in the negative point of view, the highest level of unemployment (14.73 %) is visible in regions of the first cluster. A lower unemployment problem (y1) among the analyzed regions indicates the second cluster of predominantly Slovenian regions (almost 5%). Regarding the level of Secondary education (c1), the highest share of graduates in given region from the total number results from the first cluster of richer regions (18.9 %), and the contrary lower level of Secondary education (4.4 %) between regions in Slovenia. In one slovak study found out that if the unemployment rate in given country increases by one percentage point in average, the share of mortality caused by heart disease will increase by 0.65% in average. Unemployment of tertiary education was even more effective, meaning that if the unemployment of tertiary education rate increases by 1%, the CVD mortality rate grow by 1.78% in average (Huculová, 2017). Similar findings came from Halliday (2014), which highlighted the fact that rising unemployment by one percentage point increases the probability of CVD mortality even more than 7%. Taking into account noncommunicable diseases, in countries with high income per capita and higher employment rates is assumed lower mortality rate. On the other hand, Gravellea et al. (2012) did not denote any statistically significant relationship between income inequalities, employment, and population health. Research results show that we need to improve prevention and focus on detection and control of risk factors. Clearly this clustering is determined by a number of socio-economic, political and cultural aspects and those conditions and results create a platform for a subsequent research.

5 Conclusion

As one can see the more economic advanced regions includes bigger regions of both examined countries and they are represented by the highest education level and share of births. On the other hand, these regions are characterized by a rising unemployment rate, what could appear as a potential scope for increasing the use of the economic capacities of the region by policy makers and could be linked to a partial improvement in the welfare of their inhabitants. Other clusters of this analysis was statistically divided into Slovak and Slovenian regions, what could represent the social and cultural similarity relation with considerable impact on the rate of mortality caused by CVD of population and economic performance in given groups of regions. Despite the fact that Slovenia suffers from a lower number of doctors per capita than the average in the European Union and is facing a labor force crisis (Juričič, 2016), our results show a positive lower mortality rate on cardiovascular diseases of Slovenian population than in Slovakia, where the mortality rate has long been among the highest in the European Union. Concerning the highest mortality rate of both examined countries, almost alarming half of all population die per consequence of cardiovascular disease in regions of Slovakia. By these regions in Slovakia one can see the low level of GDP per capita what can relate to state of health care and different allocation of financial resources comparing other regions in Slovenia. CVD should be located in a central position in global health and increase the involvement of addressing this issue in policy programs. The mortality rate for CVD disease is similarly related to many economic and behavioural factors (Geneau et al., 2010; Alleyne et al., 2013; Zahra et al., 2015). We emphasize the need of raise awareness of a healthy lifestyle and the importance of regular preventive examinations that can improve the individual's health. In addition to these socioeconomic factors, physical activity of individuals, healthy lifestyle, smoking, or alcohol use are still considered to be the

most important risk factors influencing the incidence of CVD. Therefore, support from the state or different interest groups and organizations to raising awareness of the issue, especially its prevention, are a key components of the reaction to cardiovascular diseases.

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