



Impact Analysis of Slovak- Hungarian Cross Border Cooperation Projects

¹René Pawera, ²Lívia Bott Domonkos, ³Richard Hakszer

¹ Comenius University, Faculty of Management

² Faculty of Management alumni 2016, Project Consultant

³ Eötvös Loránd University (ELTE), Faculty of Science

Abstract: Cooperation is the key to a better Europe. European Union supports territorial cooperation between border-regions, especially in the border settlements. Border regions, towns and districts promote cooperation as a tool for growth and change through policy development and strategic orientation within territorial cooperation and beyond regional development. Regional disparities in Slovakia are actually the highest among EU countries and the Cohesion policy tries to balance with European standards. The aim of the study is to analyze the impact of projects on disparity and economic growth in border areas mainly in the context of Slovak indicators. The comparative study also hypothesis whether the cross-border region in Hungary and Slovakia behave differently in terms of absorption in the 2007-2013 programming period. Besides, as for methodology, it was used various types such as statistical data, convergence analysis by disparities, comparative studies, absorptions maps of CBC projects, cohesion analysis of the region. Finally, it is focusing on future prognosis and possible trend of the current 2014-2020 period.

Keywords: Regional development, Cohesion policy, Cross Border Cooperation, Disparity, Economic growth

1. Introduction

Nowadays, the efficient development of regions is hard to imagine without utilization of opportunities from development funds and EU sources. This is especially typical for settlements in cross-border areas, which are located near to the state's border and relatively far from centralized industry and community centre of a country. It is particularly necessary to use allocation resources of the European Regional Development Fund in order to maximize their impact on achieving the target goals and to approach the EU's average, both in the terms of GDP and unemployment rate. In case of Slovakia and Hungary this resource is the Cross-Border Cooperation Programme between Hungary and Slovakia (hereafter as "CBC HU SK").

The research is conducting mainly on testing the hypothesis: "Realisation of CBC HU SK projects and its absorption positively influences the regional development of Slovakia".

Finally, the perspectives and the current cross-border cooperation programmes in the period of 2014-2020 will be briefly introduced. Special focus is taken on the role of regions in Slovakia in terms of disparities and project absorption where it is also presented whether the numbers and amounts of approved CBC HU SK grants resulting the cohesion of regions in Slovakia.

Methods used: Statistical data analysis, Convergence analysis by disparities, Comparative studies, Absorption Maps of CBC projects, Cohesion analysis of the region tal fund of US\$442 billion. In addition, non-main stream banks around the world which offers Islamic banking windows are 320 banks managing a fund of US\$200 billion (Nasser and Muhammed, 2013). Companies enjoy with high growth rate and profits command high price earnings ratio and higher share price whereas companies slowing down or with fewer growth prospects are punished by lower price earnings ratios and stock prices (Singhania and Anchalia, 2013).

2. Literature Review

2.1 Theoretical background

In search for efficiency, effectiveness and fiscal sustainability of cross border territory projects, NUTS 3 regions gather more performance and information on funding than ever before. As many of them have thought to incorporate and use this kind of information in budgeting of local government and planning cooperation continuously and simultaneously with regards to EU Cohesion Policy.

2.2 Cohesion Policy of the EU

Economic, social and territorial disparities at regional and national level have increased in the enlarged European Union. In order to strengthen economic and social cohesion the Community is aiming at reducing these disparities between the levels of development of various regions and the declining of the least favored regions, including rural areas. Achieving the highest possible efficiency in the use of EU Funds for the development of education and employment in the Slovak border regions is a priority and one of the main objectives of the Commission, national governments and the regions themselves. Role of the European Regional Development Fund in Slovakia is mainly expressed with the main goal of European territorial cooperation. Cohesion Policy is helped by Cohesion Fund which is one of the five European Structural and Investment Funds. From 2014, these operate under a common framework and pursue complementary policy objectives. They are the main sources of investment at EU level to help Member States to restore and increase growth and ensure a job rich recovery while ensuring sustainable development, in line with the Europe 2020 objectives. (<https://portal.cor.europa.eu>) The number of projects is surprisingly very high in this area, however according to the public awareness whereas those towns where the Cohesion Policy rule of convergence criteria of GDP < 75 % is already fulfilled. (<http://ec.europa.eu>) In terms of the number of project we can find that there is higher amount of contracted amount in Southern regions of Slovakia in Operation Programmes (Pawera, R. Šmehýlová, 2015). In accordance with the new design of the European Cohesion Policy of 2014-2020 and the targets set in *Europe 2020*, the programs have been significantly reshaped to achieve greater impact and an even more effective use of investments. These regulations are contributing to the delivery of the *Europe 2020* strategy for smart, sustainable and inclusive growth [4].

2.3 Cross-border territory and cooperation

“Europe without borders” has been always a slogan strengthening Europe’s cohesion. Now and there, it is also disputable if borders still exist (Hagett, P, 2008). However, some publications from the beginning of millennium defined that Schengen control is looping on importance (Dimitrovova, B., 2008) this can be changed in the future after 2015. According to the research of Van Houtumn (Houtum, van H, 1998) the cross-border cooperation is influenced by creation of relations, networking, interactivity, transaction, success, long-term relation. Trust is also a key factor as sometimes borders mean border in mind. These borders can be caused for border inhabitants while the other part of the country seems to them far. Trust is a psychological factor, not an economic one, however in final output it can cause lack of cooperation, interaction and in long-term it can have impact on cross-border cooperation and economic indicators. On one side borders, can protect and filter dangerous threats, on the other side they can positively effects economy, interaction helps to join, organize groups of people together, even if they come from different cultural background (Leimgruber, W., 2005). The economic powers would like to make the borders without barriers, on the contrary political powers do not prefer this way (Kovács, A., 2010). Studies about the Hungarian- Slovak cooperation possibilities are expressing that the cross-border regions often belong to the most neglected and less developed places in Europe. This can be explained partially by the long- term pressure between nations due to history and sometimes also by wars (<http://mek.oszk.hu>). Regional development in Hungarian and Slovak cross-border territory has been always the place, where authorities neglected infrastructure, starting from the socialist era (Korec P., 2004). However, its agricultural potential is competitive advantage (Lelkes G., 2004) as the agricultural indicators are favourable.

3. Research

In this study, we concentrate on regions of NUTS 3 (county) level and we might find some regions behave homogenous we in terms of absorption CBC HUSK and economic growth.

The aim is to search for dependency (correlation) between the below mentioned economic indicators, number of projects and locations, where the funding of CBC HU SK goes. First, a situational analysis based on economic indicators as GDP

and unemployment rate in both of the countries in order to examine their impact and compare with the trends in CBC project.

3.1. Regional disparities in economy

In general, we can measure the growth of regional development with following indicators; however, there are almost 3600 other indicators in the EU legislative (Domonkos. L., 2015). Measuring economic growth is a complex activity, comparing two countries is specific; especially border regions are subjects of macroeconomic comparisons with hard units to divide and compare with. We selected NUTS 3 in Slovakia to measure the impact of projects in cross border areas of Slovakia. In Figure 1 the graph describes that Slovakia (dark blue line) has been always higher with the rates of unemployment as Hungary the light blue line.

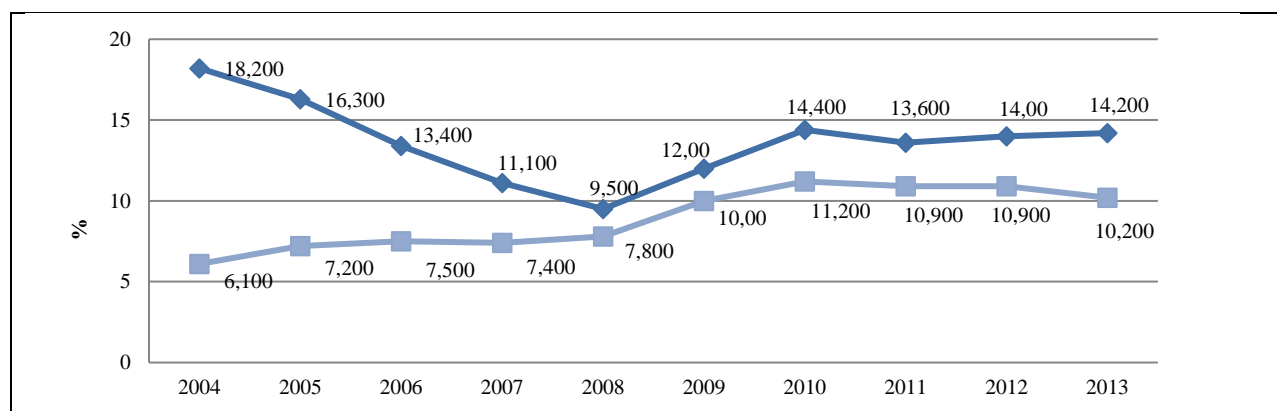


Figure 1: Comparison of Slovakia and Hungary in terms of unemployment rate
 Source: own preparation according to www.ksh.hu and www.statistics.sk

This section analyzes also the main indicators of macroeconomic values with Gross Domestic Product (GDP hereafter), however on NUTS 3 level their validity is questionable. From statistical analysis, we observe that unemployment rate was behaving differently in Hungary (growing up to 2010) as in Slovakia (decreasing before 2008 and growing after 2008 up to 2010) with a very relevant difference, but nowadays it is competitive.

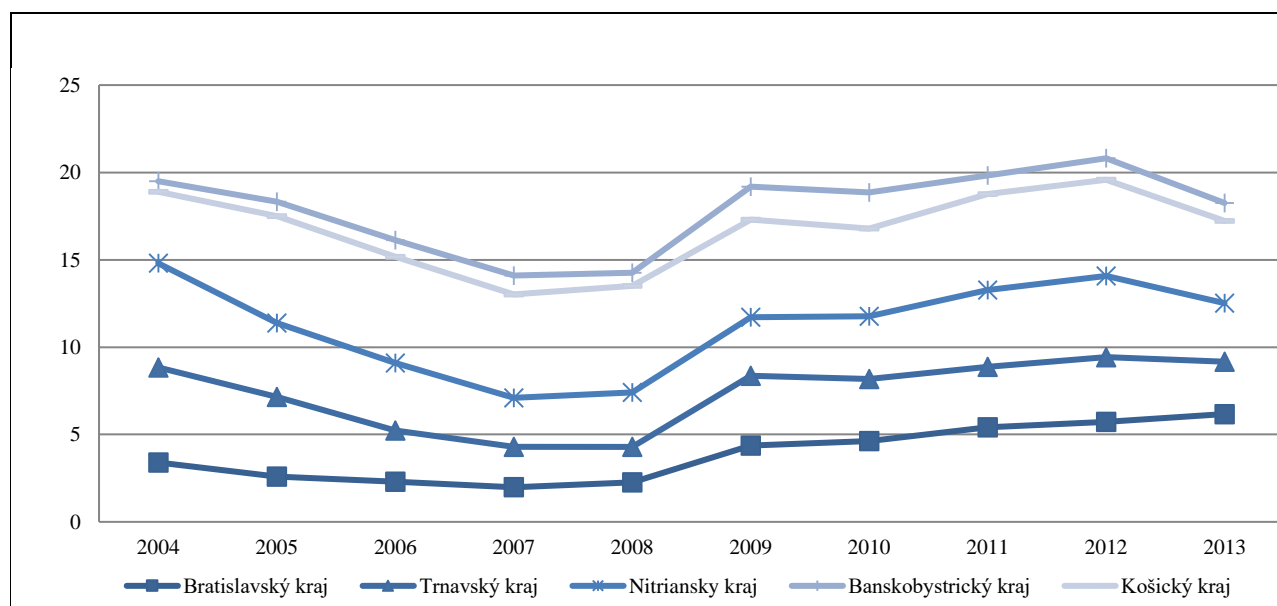


Figure 2: Trends of unemployment rate 2004-2014
 Source: own preparation according to www.statistics.sk

The Slovak Labor market shows the lowest level of unemployment rate in the capital city and its surroundings (Bratislavský kraj), the best result from other border regions with Hungary has Trnava and Nitra region, geographically they are in Western part of the country, which explains the presence of capital and Vienna-Bratislava-Budapest triangle, as well. With regard to the last 10 years of GDP amounts the comparison shows rapidly growing Slovak economy, but still very rough differences in regions between periphery and capita are appearing, almost the double rate of GDP still present.

Figure 3 describes Bratislava as the fastest growing region and from border regions the second best is Trnava, but surprisingly not just Nitra follows, due to the increasing intraregional differences within region. Here we find relevant importance of Košice city agglomeration, too.

Summarizing the indicators of GDP and unemployment rate at border regions have not changed significantly comparing to Bratislava region. This can also be explained by the long-term effect of economic processes.

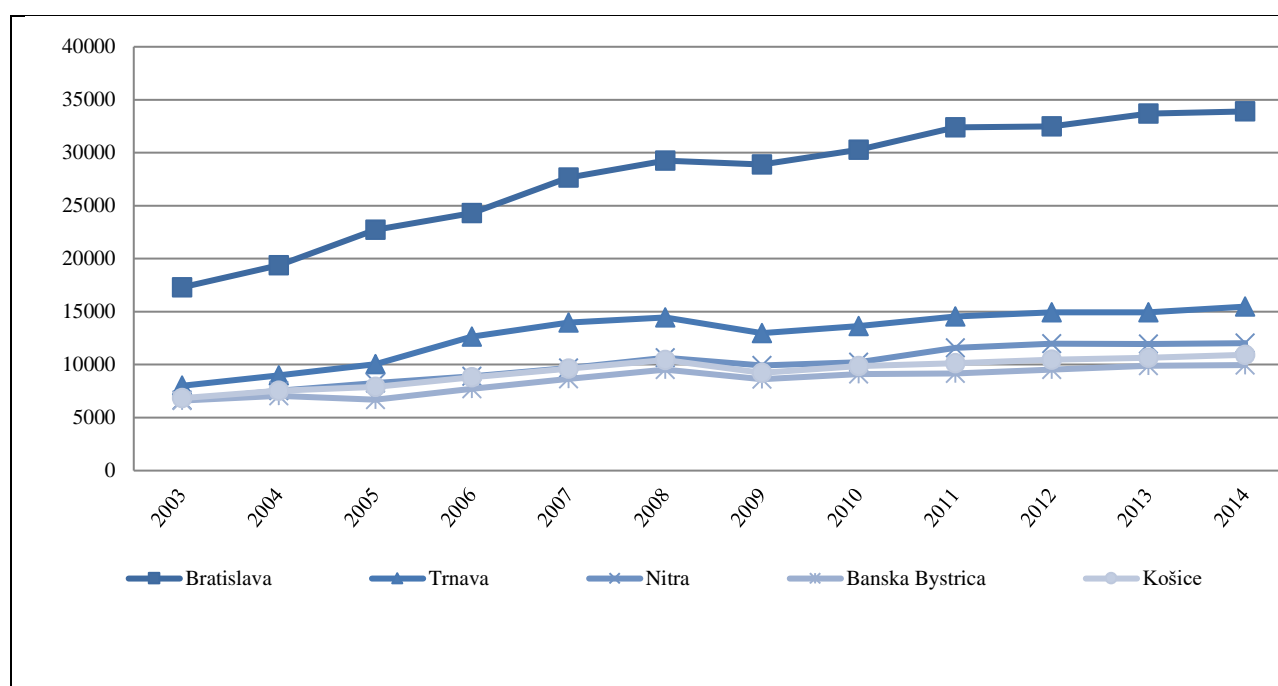


Figure 3: Trends of GDP level in selected Slovak cross-border NUTS 3 regions
Source: own preparation according www.statistics.sk

4. Result and discussion

Development of cross-border activities is defined by primarily encouraging entrepreneurship, in particular the economic development, tourism and also border-road and -bridge construction, culture, health cooperation and cross-border trade cooperation. In those 5 calls of Hungary-Slovakia Cross Border Programme 2007-2013 (Hakszer R., 2007-2013) there were more than 300 joint cross-border projects accepted and the majority contracted and implemented (<http://www.husk-bc.eu>). In above mentioned projects there were involved more than 400 project partners from Slovakia [17 – p. 105]

Table 1: Absorption of CBC HU SK projects in eligible NUTS 3 counties

County	Contracted amount in EUR (according to the seat of lead partners)	Contracted sum in EUR (detailed data for project partners)	Inhabitants	Sum per capita in EUR
Bratislava	8 223 653	9 325 181	485 469	23
Trnava	9 149 633	12 240 882	403 356	109
Nitra	22 133 406	21 884 765	647 061	196
Banská Bystrica	19 366 908	16 343 568	583 521	238
Košice	29 096 707	34 158 075	771 186	279
SUM SK eligible area	87 970 308	93 952 471	2 890 593	

Source: own processing based on IMIS (monitoring system for HU-SK CBC Programme 2007-2013)

The subject of the research selected direct border regions to analyze with the suggestion that their relevance will be higher, above there is a NUTS 4 map of regions which suggest the highest rate of absorption in the agglomeration of the capital Bratislava and Košice city.

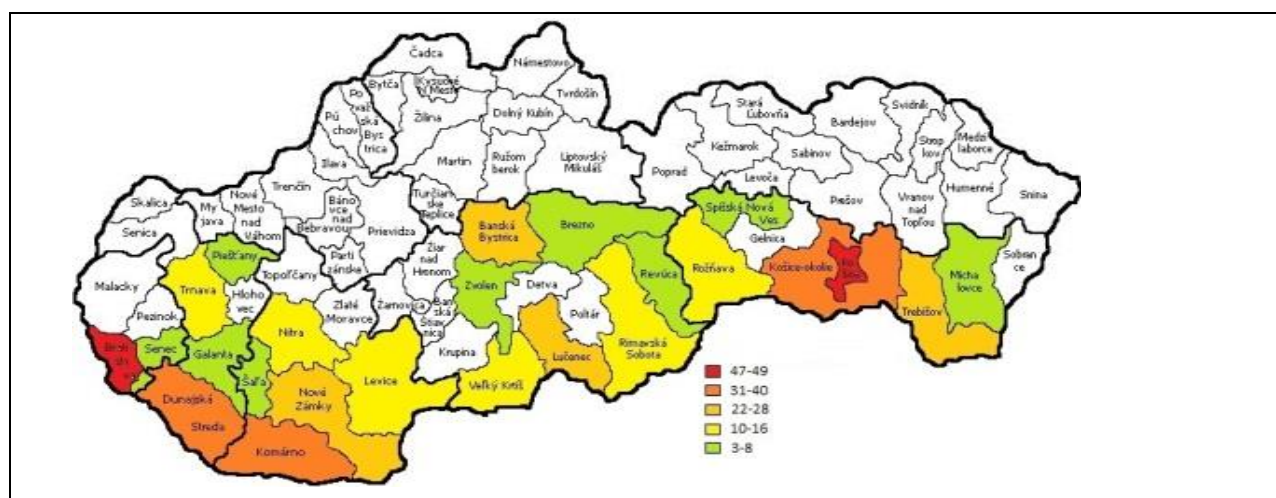
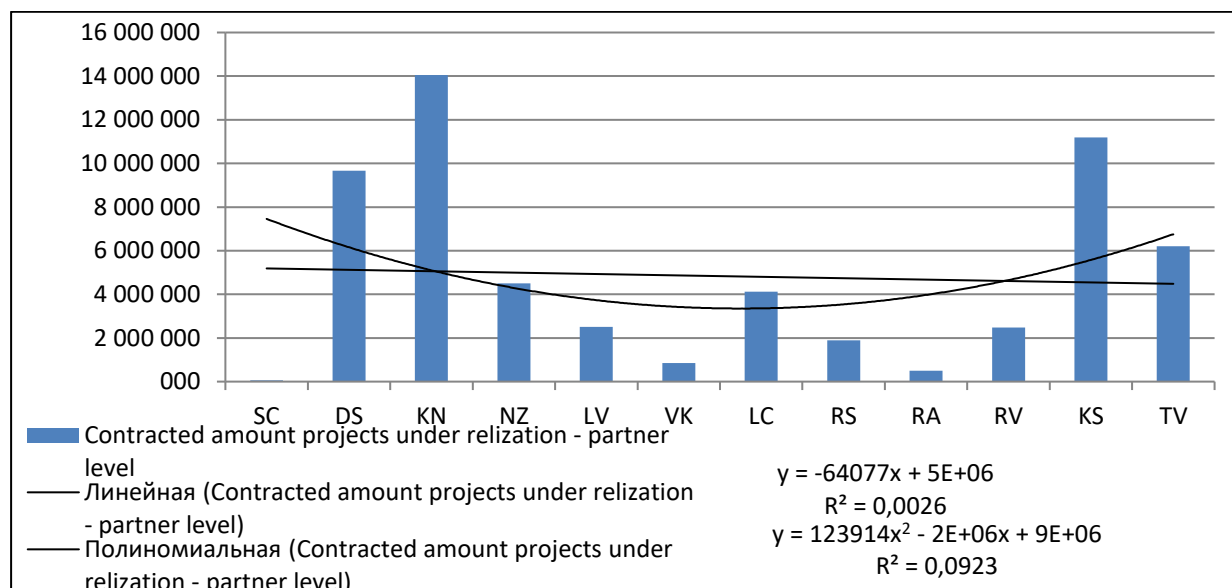


Figure 4: Absorption map describing number of supported projects per districts NUTS 4 in HU-SK 2007-2013
Source: Hakszer: Cross-border cooperation programmes and regional inequalities in South Slovakian cross-border regions. Dissertation thesis

However, Košice and Bratislava as two major cities possess with agglomerations (marked as red in Figure 4) and they are absorbing in general a lot of funds, also because of the seats of many (primary all of governmental) organisation is centralized here. According to the analysis we can see the dependence of the size of the town or city, which is indicated by red logically the number is high.

The correlation analysis will be testing whether there is an existing relation between the economic indicators and regions of projects. The direct cross-border districts (NUTS 4 level regions) are 12 in Southern Slovakia in this case (in SK-HU border area). The figure 5 shows contracted amounts in EUR in HU-SK 2007-2013 CBC programme for each direct border district. The linear trend line (about regressions and trend lines see more (<http://geogr.elte.hu>)) is flat (R^2 is only 0,0026), but we can find, that the western and eastern districts are strong, in contrary with middle part (see districts of Veľký Krtíš, Rimavská Sobota and Revúca), where is very low number of projects (Hakszer, R., 2013) and contracted amount.

In case when we inserted a polynomial regression line, we can found the „bash“, which clearly shows above, that the central regions (mainly examined border districts of Banskobystrický kraj) are weaker in absorption, than the eastern and also almost all of the western districts.



(Abbreviations : SC-Senec, DS-Dunajská Streda, KN-Komárno, NZ-Nové Zámky, LV-Levice, VK-Velký Krtíš, LC-Lučenec, RS-Rimavská Sobota, RA-Revúca, RV-Rožňava, KS-Košice-surroundings, TV-Trebišov)

Figure 5: Linear and Polynomial regression of absorption level (in EUR) of funds of HU-SK CBC Programme 2007-2013 in Slovak direct cross-border districts
Source: own preparation

The calculation per capita is more precise: the next figure second trend line (Figure 6) shows that contracted amounts in districts per inhabitants living in district and gives a $R^2=3E-06$ (linear) value, what means, that the line is running almost flat, in favor of Eastern Slovakia, and $R^2=0,05$ (polynomial): which counts that in Eastern Slovakia and in some of the western districts there were contracted in average much bigger amounts per projects in comparison with central part of border area.

Summarizing the former using of amounts per capita (Figure 6) shows also very similar results compared to figure 5, but the eastern part is a bit stronger, then by using absolute data, the linear trendline and also the polynomial trend line is more flat than trend lines in figure 5.

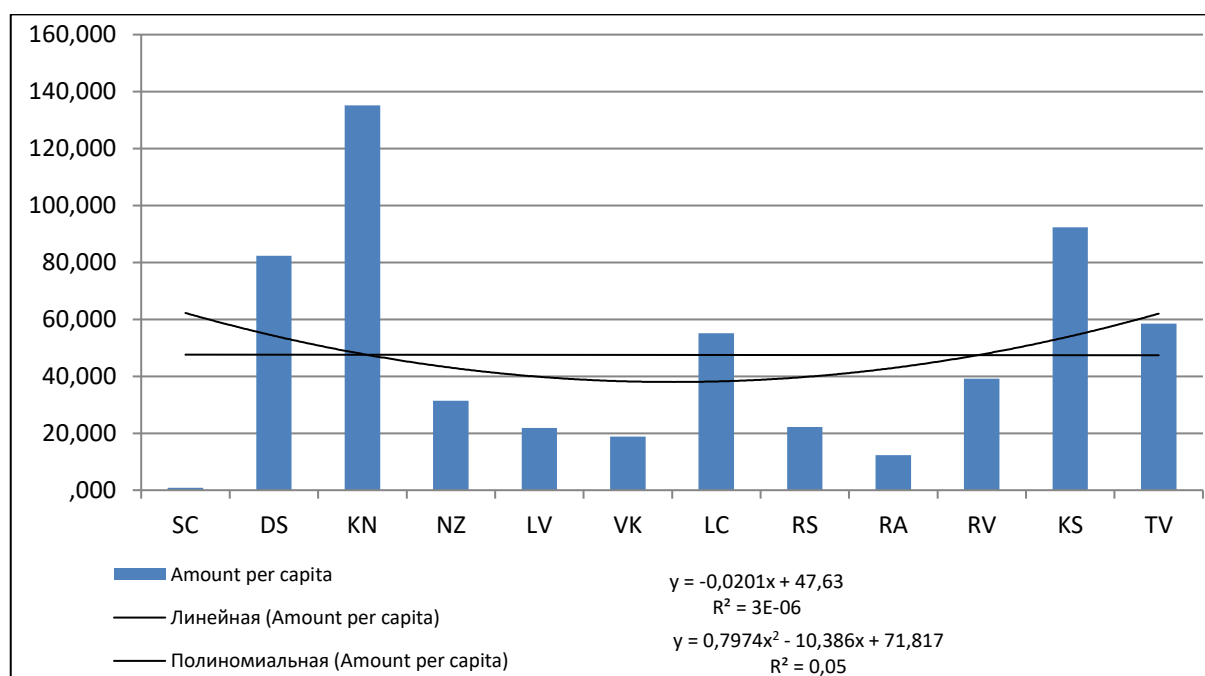


Figure 6: Linear and polynomial regression of absorption level - per capita (in EUR) of funds of HU-SK CBC Programme 2007-2013 in Slovak direct cross-border districts
Source: own preparation

Finally, the goal is to reach supporting links between urban and rural areas and by establishment and development of cross-border co-operation, primarily on the following priority areas as innovation, environment, accessibility, sustainable urban development.

However, the trend of absorption is rather characteristic of behavior so basically qualitative indicator, it can be deduced by the most common topics and popular success stories, or sustainable development and long-term project possibility.

Looking at the priorities of the calls in Cross-border Cooperation programme Hungary-Slovakia 2007-2013 was focused primary on “*Economy and society*” and it is planned to aim at actually promoting cooperation initiatives contributing to an integrated development these areas. Second major priority in this programming period was aiming to *support environment, nature protection* and accessibility incorporates interventions aimed at improving the physical conditions of cross-border co-operation, primarily in the fields of transport and communication, as well as interventions to improve the natural environment (Bott Domonkos, L., 2014). Taking into consideration applicant’s legal status this calls are not specifically designed for SMEs. There is a new legal status from 2008 available for the cross-border cooperation the European Grouping of Territorial Cooperation (Domonkos, L., 2016).

Every country is economically and regionally diverse and unique in Central Europe; also, the employment rate differs even if they are neighboring, so absorption rate is usually higher in those which are less developed (<http://www.palyazat.gov.hu>).

4.1 Analysis of Pearson and Spearman correlation

With regard to the amount of project per capita, one knows about. In this statement, we examined whether the age has impact on the observation ability of the inhabitants and subjective impact of Cross Border projects on a sample of 180.

Hypothesis 1: Awareness of Cross Border Cooperation projects is not dependent on the age of respondents.

X age $\sum = 2421$, Mean = 40.35,

$$\sum (X - M_x)^2 = SS_x = 10847.65$$

Y amount of project $\sum = 190$, Mean = 3.167, $\sum (Y - M_y)^2 = SS_y = 176.333$

$N = 60$, $\sum (X - M_x)(Y - M_y) = -803.5$

R analysis Pearson correlation

$$r = \frac{\sum (X - M_x)(Y - M_y)}{\sqrt{(SS_x)(SS_y)}}$$

$$r = -803.5 / \sqrt{(10847.65)(176.333)} = -0.581,$$

The 0.581 value is moderated negative correlation between the two variables, we can state there is the tendency of the growing age causes increase in the project information and awareness in cross border cooperation projects. Coefficient of determination 0.3376, practically means that the bigger the valuable X is, the smaller the valuable Y will get. The Hypothesis 1 resulted as correlation between the age and awareness.

The last test serves for the comparison of current and future expectations of the impact of the projects to the region. When we use Spearman test for setting the order of priorities in terms of Priority Axis and project topics, we set hypothesis.

Hypothesis 2: There is no correlation between the priorities of inhabitants of the border region in the programme period 2007-2013 and 2014-2010. V

Result of Hypothesis 2: There is no correlation between priorities of the previous and current programme period.

Table 3: Priorities of inhabitants of cross border region in terms of importance and order

Priority 2007-2013	Number of respondents voting for the topic 2014-2020	Number of respondents voting for the topic 2007-2013	Priorities of topics in 2007-2013	Priorities of topics in 2014-2020
Infrastructure	32	32	1.	1.
Cross Border Cooperation	4	31	8.	2.
Economic growth	3	18	7.	3.
Labour Market	29	8	2.	7.
Agriculture, Nature	13	9	6.	6.
Culture	20	12	4.	5.
Enterprise and business	20	15	4.	4.
Energy efficiency	29	8	2.	7.
test of sign	Absolute values	HR Wilcox test	Sign test R	Spearman test
n/a, 1, 1, -1, -1, -1, -1	0, 28, 15, 21, 4, 8, 5, 21	n/a, 7, 4, 5.5, 1, 3, 2, 5.5	n/a, 7, 4, -5.5, -1, -3, -2, -5.5	0,3444

Source: own preparation

In conclusion impact of the project of previous and current programme period are slightly different and the region we examined is the “best” region for the Figure 5 of absorption rate, above with abbreviation KN, Komárno.

5. Impacts of HU-SK CBC Projects

The subject of this part is to summarize the previous facts about macroeconomic measures, correlation and convergence and analyse contracted project numbers, success rate, density and appearance and type of project.

Measuring convergence between regions where projects were realised: We found out that the correlation in the western and eastern part of Slovakia is higher in terms of CBC HU SK.

Measuring with success ratio of project by number of requested and approved projects divided, in percentages: Here we found the number of highest amount was Trnava and Nitra county with the districts of Dunajská Streda and Komárno. The support under INTERREG V-A Slovakia-Hungary 2014-2020 CBC Programme will be directed towards the protection and improvement of the environment, building transport infrastructure (i.e. cross-border roads and bridges), strengthening of cross-border mobility, use of the river for freight and passenger transport and the construction of modern transport network of border regions. There is growing need of regional development, creation of jobs, work market, information people to people cooperation across borders and infrastructure (<http://www.skhu.eu>).

Generally, the impact cross border territory might be the highest, as geographically those regions are the furthest located from the capitals as Bratislava, Budapest (Mezei, I., 2010).

The new trends of 2014-2020 in the programming periods according to Strategic Framework of supports the fields such as environmental innovation, infrastructure, economic growth, development of human capital, sustainable and effective usage of nature sources, modern and professional public administration (Domonkos, L.- Pawera, R., 2013).

Although, it seems that available performance information is incorporated fairly well, measurement and effective usage as well as sustainable development and continuity are sometimes missing in long term plans. Considering the existing social and economic relationships of Southern Slovakia the key to the social and economic renewal of the subject region are the small- and middle enterprises (Lelkes, G., 2008).

Regional development, project evaluation activities along with the objectives and activities, priorities and programs of CBC HU-SK could be more effective in the next or current period. There is a future expectation that Hungarian-Slovak

Border Strategy will be reducing isolation and expanding synergy through improved information change between actors, access to cross-border transport and communication networks and service by cycle-path and other infrastructural road enhances cooperation of various offices, public institution environmental, nature protection, promoting sustainable and quality employment. (<http://www.husk-cbc.eu>)

6. Conclusions

Summing up, the main goal of this article was to discover how the cross-border projects correlate to the regional growth of Slovakia.

We can partially reject the hypothesis according to which the CBC HU SK specifically creates economic and regional growth for Slovakia. Statistically, this cannot be observed, yet. This does not mean that the programme is not useful, just the opposite, it creates added value in networking, international cooperation and common use of the tools of EU.

In order to analyse the effectiveness of projects it is important to see the previous and current status, also analyse the economic indicators long-term. The numbers of projects in programming period 2007-2013 - in comparison with previous programmes - was relatively high and also amount of approved support, but it will be taken into the consideration that, the overall allocation for CBC HU SK programmes (and generally for all CBC programmes) is very small in comparison with available sources for “national programmes” founded by EU (Hakszer, R., 2016).

It can be concluded that measuring the effectiveness of economic indicators remains sometimes just an objective evaluation given that the macroeconomic indicators does not show any relevant grow, yet. However, budgeting in new period of 2014-2020 for regions offers interesting insights in the way this kind of distribution of allocation is practiced in EU funds located in cross border regions. Regions of Northern Hungary and South Slovakia are very different as it was showed in cohesion policy analysis they differ within countries (Bratislava, Komárno), both the priorities and stages of development are facing new development.

Changes in priorities for 2014-2020 as Integrated Territorial Cooperation will be more effective and he cross-border programs with improvement of concentration principle (reduction of number of priorities) and with respect to the creation of synergy or strengthening of a tangible result are places of social innovation, networking and soft development (Hakszer, R., 2013). They should show a best practice for central regions as Bratislava and Budapest and prove that peripheries can also be successful by developing collaboration, capacity building and joint use of infrastructure as the common cycle roads. This can be achieved by planning common projects in economic development the best practice remains in sharing in particular in sectors such as *traffic, events, health, culture, tourism and education*.

The inhabitants of the border regions are slightly informed about the ongoing projects, their number is growing with lower age, so basically these projects are visible and useful for new-age (Bott Domonkos, L., 2016). The Spearman correlation has showed that there is a slight difference between the topics the inhabitants prefer from the region for this programme period 2014- 2020 and their observations and previous experience from the programme period 2007-2013. Similar studies were taken into consideration by building the new programme manual and the topics of the current programme period are as follows: 1. Nature and culture, 2. Enhancing of cross-border mobility (new border crossing points), 3. Promoting sustainable and quality employment (cross-border labour market), 4. Cooperation between institutions and people living in the border area. Hopefully, they can now reflect more effective the need of the inhabitants and have bigger impact after the evaluation in 3rd decade of 21st century, after the programme period ends.

References

- Bott Domonkos, L. *Project of Cross Border Cooperation of EU and their impact on the business environment and the region in Southern Slovakia* Bratislava, Faculty of Mangement, Comenius University UK, Slovakia, 2014
- Bott Domonkos, L., *Cohesion Policy in Economic Growth through Cross Border Cooperation in Southern Slovakia*. Bratislava. 2016. Dissertation thesis.
- CBC HU SK.2013. Financed Programmes of CBC HU SK. http://www.husk-cbc.eu/en/financed_projects

- Dimitrovova, B., *Re-making of Europe's Borders through the European Neighbourhood Policy*, Journal for Borderlands Studies, 2008
- Domonkos, L. *Economic growth of cross border regions in Slovakia* In : *Súčasné trendy a problémy v manažmente*, Univerzita Komenského v Bratislave, Fakulta managementu: Bratislava, Slovakia, 2016
- Domonkos, L.- Pawera, R., *Trendy v cezhraničnej spolupráci 2014-2020* In : *Súčasné trendy a problémy v manažmente*, Univerzita Komenského v Bratislave, Fakulta managementu: Bratislava, Slovakia, 2013
- Domonkos, L., *Cross Border Cooperation Projects'impact on enterprises in Southern Slovakia* Horizonty II, Comenius University: Bratislava. 2015[14] Hakszer R.: *A 2007-2013-as Magyarország-Szlovákia Határon Átnyúló Együttműködési Program regionális aspektusai, megvalósításának tapasztalatai / Hungary-Slovakia Cross-border Co-operation Programme 2007-2013 – regional aspects, experience of implementation*. In: *Tér és Társadalom – Space and Society* Vol.31. No. 1, 2017/1, pp. 107-123. doi: 10.17649/TET.31.1.2791, [CrossRef](#)
- European Commission, *Territorial Cohesion*. Available online http://ec.europa.eu/regional_policy/en/policy/what/territorial-cohesion
- European Commission, *Building Across Europe. Portal of CoR*. Available online at: < <https://portal.cor.europa.eu/egtc/about/Pages/What%20is%20the%20EGTC.aspx>>
- European Commission, *EUROPE 2020 Strategy, A strategy for smart, sustainable and inclusive growth*.
- *Evaluation report of the Hungarian Government 2015*. Available at <http://www.palyazat.gov.hu/ertekelesek>
- Hagett, P, *Geography*. Global Synthesis. Typotex. Budapest : Typotext, 2006
- Hakszer, R., *Cross border cooperation projects in the Hungarian Slovak border area*. Acta Universitatis Palackianae Olomucensis – Geographica, Vol. 44, No. 2, 2013, pp. 93-109
- Hakszer, R., *Local development by using of EU funds in the Hungarian-Slovakian border region*. Young regionalists VIII., Győr. 19-22., July, 2013.
- Hakszer, R., *Regional Development with emphasis on CBC HU SK projects* Dissertation Thesis. Budapest. ELTE, 2016
- Houtum, van H, *The development of cross-border economic relations*. Dissertation Series, 40. Centre for Economic Research, Tilburg University, The Netherlands, 1998
- Korec P., *Regionálny rozvoj Slovenska v rokoch 1989—2004.;Regional development in Slovakia in 1989/2004]* Bratislava, Geografika.2005
- Kovács, A. , *A határok és a határgazdaságtan néhány elméleti vonatkozása*. In: *Cégek célkeresztben*. Vállalkozások a szlovák-magyar határmentén.,2010
- Leimgruber, W. *Boundaries and transborder relations, or the hole in the prison wall: On the necessity of superfluous limits and boundaries*. In: *GeoJournal* 2005. 64. pp. 239–248., 2005
- Lelkes G.,*Dél-Szlovákia fejlődési irányai — Térségi adottságok*. In *Dél-Szlovákia*. Budapest—Pécs, Magyar Tudományos Akadémia—Regionális Kutatások Központja,465—479. p.,2004
- Lelkes, G, *Régiók és gazdaság*, Fórum Institute, Slovakia, 2008
- Mezei et al: *Relations of Local and Regional Governments along the Hungarian and Slovak Border*. Available at online: <http://mek.oszk.hu/08700/08744/08744.pdf>
- Mezei, I. (2010): *Urban Development in Slovakia*. CRR of the HAS, Pécs – Forum Minority Research Institute Šamorín.
- Nemes Nagy J (ed.): *Regionális elemzési módszerek - Regionális Tudományi Tanulmányok*, vol.11. ELTE Regionális Földrajzi Tanszék – MTA-ELTE Regionális Tudományi Kutatócsoport, Budapest. http://geogr.elte.hu/REF/REF_Kiadvanyok/REF_RTT_11/RTT-11-03-teregenlotlenseg.pdf
- Pawera, R- Šmehýlová, Z, *Trend in absorption of EU funds. Case of Slovakia*. CER Comparative European Research Conference, CER, pp. 55-59, Sciecee, October, 2015
- *Programme Guide of CBC HU-SK– programming document and results of implementation* is available at: <http://www.husk-cbc.eu/uploads/editors/SKHU%20OP%20english%20version%202014%2011%2028.pdf>
- SK [HU.EU](#). *What is Interreg.*: Available online at: < <http://www.skhu.eu/programme/what-is-interreg>>