

Mocková, Miriam; Kunertova, Petra

Conference Paper

Creativity of Regions and its Monitoring in Region of Žilina

52nd Congress of the European Regional Science Association: "Regions in Motion - Breaking the Path", 21-25 August 2012, Bratislava, Slovakia

Provided in Cooperation with:

European Regional Science Association (ERSA)

Suggested Citation: Mocková, Miriam; Kunertova, Petra (2012) : Creativity of Regions and its Monitoring in Region of Žilina, 52nd Congress of the European Regional Science Association: "Regions in Motion - Breaking the Path", 21-25 August 2012, Bratislava, Slovakia, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at:

<https://hdl.handle.net/10419/120768>

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Creativity of Regions and its Monitoring in Region of Žilina

Miriam Močková*, Petra Kunertová

University of Žilina

Abstract

According to economic theory, regional development can be achieved by economic and non-economic development. By the term regional development we understand an economic and also a social process, which aims to create a viable and productive territory. One of the objectives of regional development is to start the process of building a sustainable competitiveness of the region through the effective use of its potential and spatial peculiarities on the basis of monitoring and analysis of market needs and competitive behavior.

Regional development has its own characteristics, which should be respected because they are mainly due to the landscape pattern.

Each area fulfills concrete economic and social functions that affect the pattern of the landscape potential. An attractive area has better chance to succeed in the market area, because it attracts financial and high-quality human capital that can provide its further development, prosperity and wealth growth then.

The competition of market areas is as strongly as in other markets, so most of the procedure for draft the strategies of the regional development has a common base - searching for competitive advantage. At the present time, in creating competitive advantage, the focus is removing from orientation of the market share growth to the efficiency growth in terms of improving competitive advantage. Every region achieves a competitive advantage in a different way in dependence on its potential, on environment in which exist, on the market in which is active and on its competitors.

If the region will be competitive and thrifty, it must capture and retain creative people. This is possible only if combine talent, technology and tolerance in region.

Most of new, creative thoughts and ideas originate by interpersonal interaction mainly among different and talented persons. An important role plays an education and contiguous information and knowledge transfer. Talented persons are mostly concentrated in cities, especially in capital cities.

In consideration of the population of Slovak Republic is therefore important that all municipalities should have develop their own talents, constrict new talent and practice

* Corresponding autor: e-mail address: Miriam.Mockova@fpedas.uniza.sk, tel: 00421415133105

tolerance by respect for diversity. This approach forms the basis for definition competitive and also creative strategies of development of the municipalities, cities or whole regions.

A serious problem that needs to be solving in connection with the development of talents at the local level is the cooperation among government, business sector, universities and cultural institutions.

The paper deals with the creativity of regions and its monitoring in the region of Žilina. The measurement will be realized by the selected indicators of creativity.

Keywords: creative economy, creative economy development, creativity index, Žilina region

JEL Classification

P25

1. Introduction

In recent decades, nations and cities have passed by extraordinary rate from the industrial economy to the information economy, then gradually to the knowledge economy and later to the creative economy. The development of creative economy and creative industries has gone in each country by its own way and its own rate. The term creative economy was the first time mentioned in Australia in 1994 and in 1997 was already well known in Britain, where Tony Blair's labor government established interdepartmental working group for Creative Industries (Creative Industries Taskforce). Creative activities are becoming a source of income and economic growth and they are creating new sectors. The cities in whole Europe have become associated with the idea that cultural and creative industries can provide a basis for economic recovery. Creative industries have helped cities and regions with retrograde heavy industry (Scotland, England), or localities where never becomes a strong base of traditional industrial sectors (Queensland, New Zealand) or cities that have been exposed to negative effects of industrial decline Information Technology (Taiwan , Singapore). [1],[2]

"Many recent studies have shown that cultural and creative industries are one of the most dynamic sectors in Europe. It's contribution to the EU's GDP is about 2.6%, it is characterized by high growth rate and it provides quality jobs for around 5 million people in whole EU-27. In addition, the cultural contents play a key role in information society development, in investment promotion to broadband infrastructure and services, to digital technologies, as well as to new consumer electronics and telecommunications equipment. "[3]

The basis of the creative economy is a human creativity, which brings new ideas adhering with the original thoughts that are different from others. It is just creative thinking that allows the further economic development. Sufficient capital, labour power and

technology are considered as the main sources of economic growth. Nowadays, in addition to these sources, there is a creative economy, which considers creative thinking as the main source of growth performance. [4]

The creative economy has entered to many advanced economies. It brings them the economic growth, because it is an unlimited source of new ideas and thoughts which are reflected on new creative products and services. By continually developing of creative industries can be achieved the improving of the economic position of Slovak regions. The creative economy markedly contributes for competitive advantage against other countries respectively regions.

The issue of creative economy and creative cities deals many authors; the most famous are Charles Landry and Richard Florida. R. Florida in his works indicates the importance of the creative city, as an environment for the development of creative persons. Creative area should provide sufficient support for cultural, artistic and technical creativity.

Science, art and culture are the base of the creative economy and also a source of economic growth, which is increasingly being used by cities and regions, and thereby assumes for their growth and development are created. This area is characterized by openness, tolerance, uncorrupted background and especially a higher concentration of creative individuals.

Creative city is usually associated with urban policy and regional development policy. This concept mentions the shift from interest of the physical infrastructure to interest of soft infrastructure. This change requires a completely different knowledge and skills from landscape designers than finding the physical space solutions were required. According to Charles Landry, the creative city is an area, which is succeed in finding the innovative solutions to problems in today's modern city. Following the public policy, in creative city should have the urban culture, media, sports, education and entertainment to exist and cooperate in synergy. An important condition for creating a new city and its image is the participation of different actors, public agents, representatives of the third sector, business and so on, which leads to issues of city management. [5],[6]

Former British Minister for Culture, Media and Sport, Chris Smith, who was greatly made right in development of creative industries in Britain and Northern Ireland, thinks that Slovakia has a huge potential for development of creative industries, because of its traditional culture, rich history and dynamic. [7]

The paper discuss about the creative economy and its influence on development of Slovak regions. Attention is focused mainly on Žilina region, conditions for the creative economy development and its impact on economic growth and regional development.

2. Material and methodology

In area of creative economy it can be watch the various economic indicators and compare them in the midst of various components of the creative industries. It is possible to focus on such companies reporting revenues, investments, costs and also the number of employees in individual components of the creative industries.

The following two charts focus on revenues development in the creative industries in the Slovak Republic for the period from 1995 to 2009. It is possible to see significant increase of the value of sales of creative industries in recent years. The chart also shows the descent of revenues in 2009 due to economic crisis, but even this fact does not change the view of the increasing trend of creative industries. Just rising sales indicate the development of creative industries in Slovakia, therefore the support of the state is needed (for example supporting investment projects, etc.). [8]

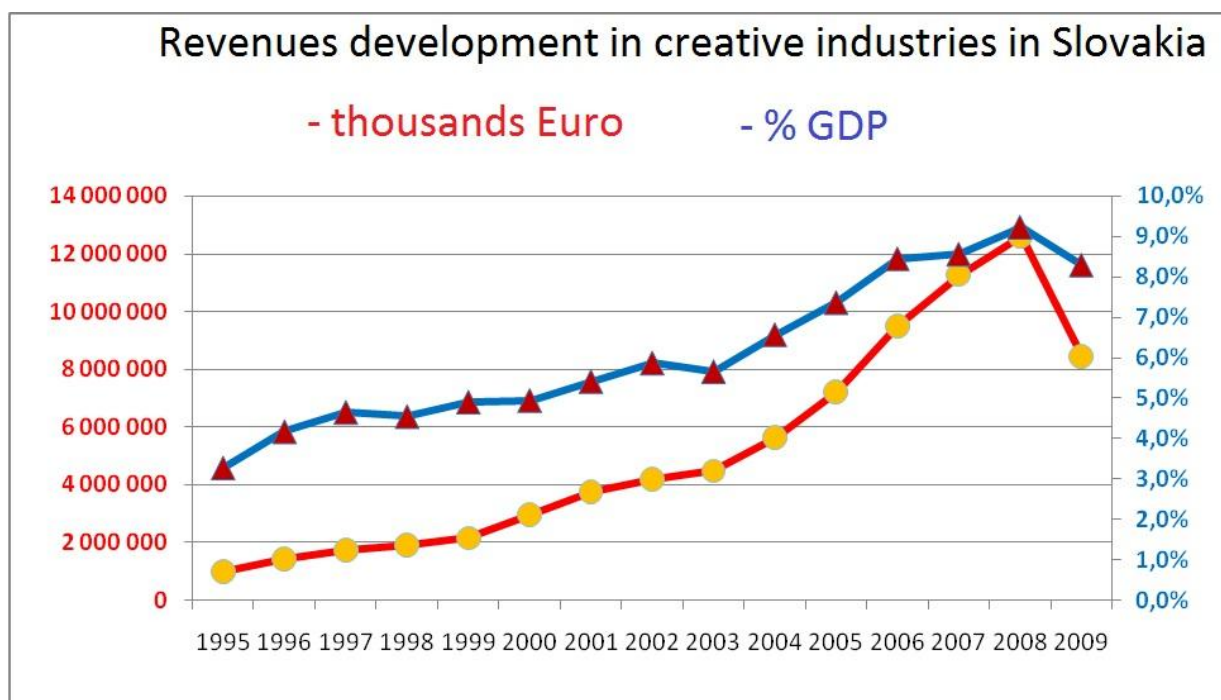


Figure 1. [Revenues development in creative industries in Slovakia]
 (Source: SALAJOVÁ, Slavomíra. *Prečo kreatívna ekonomika?* - 01.03.2011[online].
 Iconference.eu [cit. 20. 04. 2011].
<http://www.iconference.eu/Icondoc/seminarsvk.pdf>)

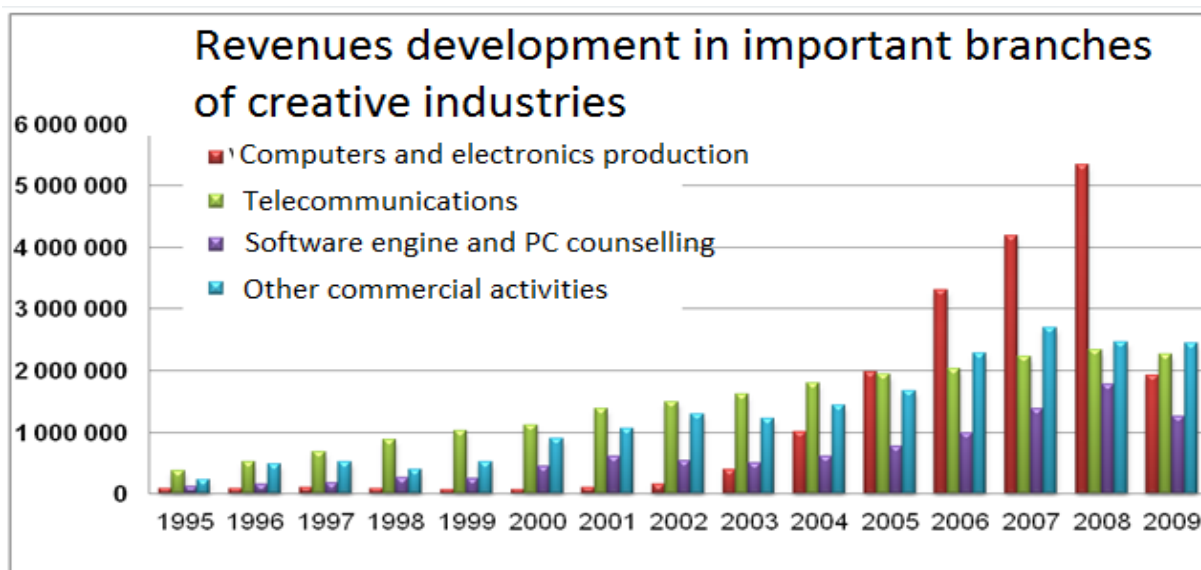


Figure 2. Revenues development in important branches of creative industries (Source: *Podpora kultúrneho a kreatívneho priemyslu v SR*. [online]. [cit. 2012-04-16]. <http://www.1snsk.sk/Navrh_materialu_o_podpore_kulturneho_a_kreativneho_priemyslu_v_SR_odoslan_y_na_rokovanie_vlady_SR>.)

The Slovak Republic has great potential in creative economy development, which is encouraged by the accruing group of businessmen, who mainly use their talent, creativity and ideas. It is important to achieve this area to the level of state policy. An important step, along this line, is the project "Scopes of conception for cultural and creative industries support". It focuses on concepts, statistical data and support processes related with the creative economy. Creating appropriate conditions for creative industries development should be perform in following main steps (Figure 3). [8],[9]

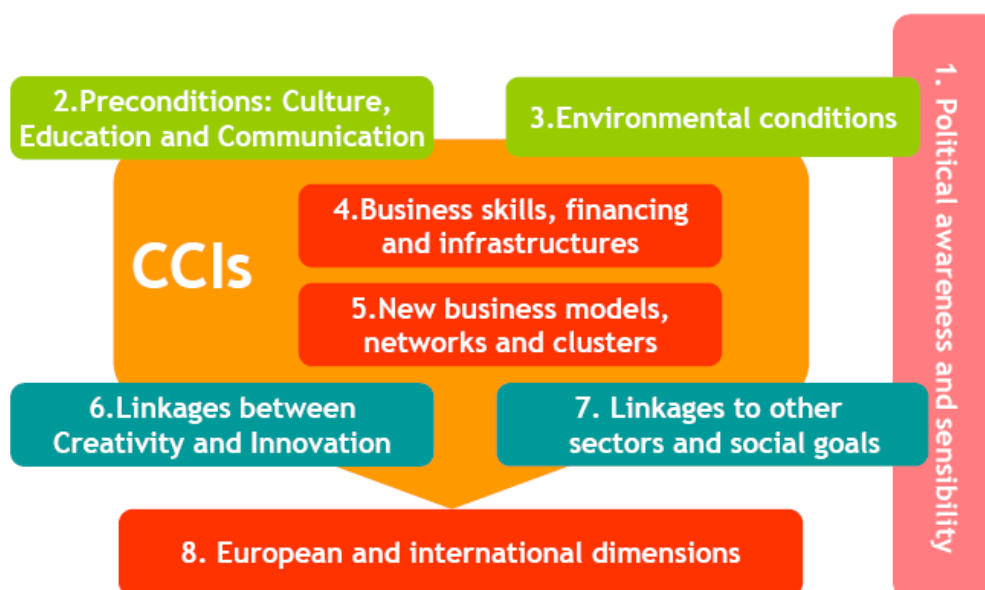


Figure 3. Basic relations of development in creative industries
(Source: http://ec.europa.eu/culture/our-policy-development/doc/library/EU_OMC_WG_CCI_Final_Report_June_2010.pdf)

Creativity Measurement

Application of measurements in the creative economy is different from other economic industries and sectors because of different statistical tools and data. The current statistical tools do not allow exact evaluation of the creative economy and industries. Because the range of creative industries is very wide and it fashions a variety of sectors, it can not be specialize to primary, secondary or tertiary sector. It is also difficult to identify the product of creative industries unlike other traditional industries, such as automotive, food, chemical industry and so on. Creativity is in this case, the input factor. For creativity measurement are using: 3Ts Index, Euro-Creativity Index and Model 5C.

Index 3Ts (Creativity Index)

Richard Florida's theory in explaining regional economic growth builds around the "3Ts" – Talent, Technology and Tolerance – which argues that creative people prefer places "that are diverse, tolerant and open to new idea", and that the presence and concentration of creative capital in a region" in turn lead to higher rates of innovation, high-technology business formation, job generation and economic growth".

In practical terms, the 3Ts of economic development are measured by a set of indices to reflect the relative concentration of high-tech industries and the creative class in an area as well as to demonstrate the openness and diversity of a place, which include [17]:

- Measurement of "**Talent**" using the percentage of the population with a bachelor's degree or above to reflect the presence and concentration of human capital in a region. Besides, relative concentration of the creative class in a region is measured by counting the number of creative class defined on the basis of major occupational categories.
- Measurement of "**Technology**" comprising two indices, the "Innovation Index" and "High-Tech Index". While the first index selects a simple indicator (patents granted per capita) to reflect the innovative power of the population, the "High-Tech Index" measures both the size and concentration of a cluster of technology-related industries in a region (such as software, electronics, biomedical products and engineering services).
- "**Tolerance**" being measured by a "Composite Diversity Index" which combines the "Gay Index", "Bohemian Index" and "Melting Pot Index". The Gay Index measures the over- or under-representation of coupled gay population in a region as an indirect measure of the openness and social tolerance of a given region. The Bohemian Index counts the relative population of artistically creative people in a region. It intends to

provide a direct measure of producers of cultural and creative assets in an area and presupposes that the presence of this group of creative people stands for the diversity in lifestyle and robustness of creative activities. The Melting Pot Index measures the relative percentage of foreign-born people in a region. The last index is another means to measure the openness towards immigrants or outsiders in a region, whose presence can be regarded as a new driver of economic growth.

Euro-Creativity Index (ECI)

In a recent work, Florida and Tinagli apply the “3Ts” framework to the European context (Florida and Tinagli 2004). The study develops the “Euro-Creativity Index” (ECI) based on the analytical framework advanced in *The Rise of the Creative Class* and compares 14 European, Scandinavian and Nordic countries with the United States.

○ **Euro-Talent index**

- Creative Class: Measure of creative occupations (drawn from the International Labour Organisation database for European countries).
- Human Capital Index: Measure of the percentage of population aged 24-64 with a bachelor’s degree or above.
- Scientific Talent Index: Measure of the number of research scientists and engineers per 1,000 workers.

○ **Euro-Technology index**

- Innovation Index: Measure of the number of patents per million people.
- High-Tech Innovation Index: Measure of the number of high-tech patents per million people.
- R&D Index: Measure of R&D expenditure as percentage of GDP.

○ **Euro-Tolerance index**

- Attitudes Index: Measure of attitudes towards minorities (based on the Eurobarometer Survey).
- Values Index: Measure of values and attitudes that cover different aspects of the value system in a country (such as religion, nationalism, authority, family, women’s rights, divorce and abortion).
- Self-Expression Index: Measure of attitudes toward self-expression, quality of life, democracy, trusts, leisure, entertainment and culture.[17]

5C Model

Hui, Chung-Hung and Mok, University of Hong Kong also attend the enquiries of creativity measurement. They compiled 5C model which allows measurement of creative economy through Index of creativity output.

The accuracy and precision of this method can be achieved only by a broad base of statistical data. In terms of this model the creativity means to a process that is influenced by single types of capital. [10]

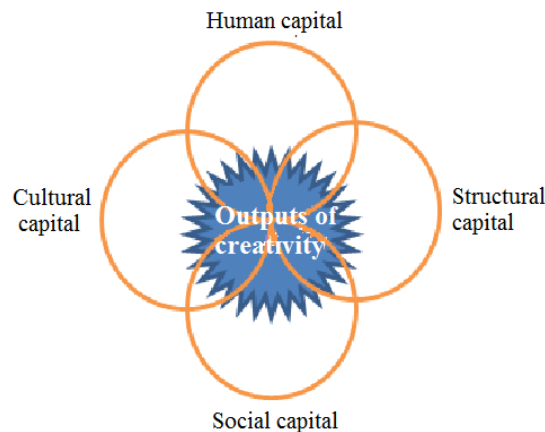


Figure 4. Creative outputs and four types of capital (Source: KLOUDOVÁ, J. *Kreativní ekonomika*. Bratislava: EUROKÓDEX, s. r. o., 2010. s. 216)

Statistical processing

Statistical data are necessary for planning and evaluation of assumptions and results of each policy, they are also an important part of creative industries. The Statistical Office of the Slovak Republic cooperates on various projects in regard to creative economy and its support in Slovakia. It published the statistical data of creative industries for the first time at conference Freedom of Creativity acting in Bratislava. In sphere of statistical data mining it can start from an already structured NACE codes (Statistical classification of economic activities in the European Community).

In terms of statistical data the creative industry can be divided into the following groups [4]:

- Musical industry;
- Book market;
- Art market;
- Broadcasting market;
- Creative art market;
- Design industry;

- Architecture market;
- Press market;
- Advertising market;
- Software and games industry;
- others.

Design of Modified Creativity Index for valuation and comparison of Slovak regions

The Modified Creativity Index was designed by subindices of Index 3Ts and Euro-Creativity Index combination. The main reason for its construction was that there are not at disposal every statistics needful for calculation of indices which fall into Creativity Index or Euro-Creativity Index for Slovak regions. The main structure of this index is displayed at figure 5. This modified index provides valuation the environment for creative economy in compared Slovak regions. It was designed on the basis of available statistical data of the Slovak Republic, through which it can be possible to calculate the values that allow comparison of Žilina region and other regions of Slovakia in terms of creative economy. For the calculation were used the data from the year 2010.

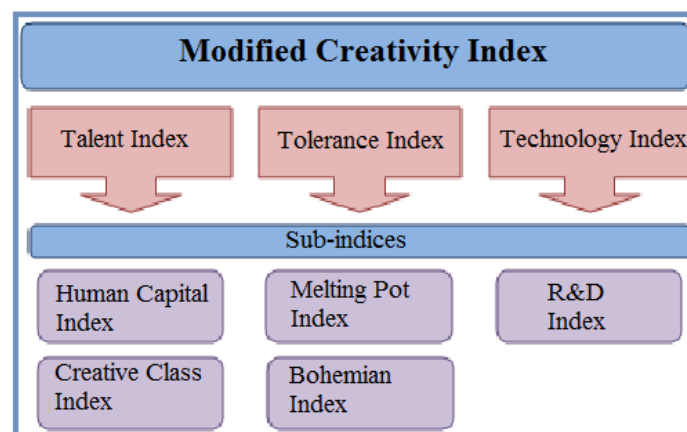


Figure 5. Modified Creativity Index [4]

Calculation of Modified Creativity Index

The steps after subindices definition:

- creating a table for each subindex;
- calculation of subindex values for every Slovak region and those values were listed in particular tables;
- calculated values in percentages were ranked from the highest to the least;
- the score was assigned to regions according to the percentage; region with the highest percentage got the score of 8, and others were based on simple calculation (percentage ratio).

After addition the scores of regions it is possible to determinate the region with the best conditions (the highest score) for the creative economy development. [11]

3. Results

Modified Creativity Index Analysis in Slovak regions

Talent Index

To the Talent Index were included Creative Class Index and Human Capital Index in Slovak regions. To calculation was included, how many people are employed in creative industries such as arts, culture, science and research, tourism. And hereby how many people in region have an academic degree. Just these areas are suggested the size of the talent in region, which is necessary for generating new ideas and thoughts that bring competitiveness and aggregate economic value of the region.

Human Capital Index

To calculate the index it was chosen the count of labour force with bachelor's degree or above, which was at the rate of total population in each region. Calculated percentage expresses the Human Capital Index in region.

Žilina region is on the second place with the score of 3.55, and has the value of Human Capital Index 8.22%. On the first place is Bratislava region with wide difference in compared with other Slovak regions, its rate of Human Capital Index is 18.50%. On the last place is Nitra region with the value of Human Capital Index 5.90%.

Table 1. Human Capital Index

Region	Population of region	Count of labour force with academic degree	Human Capital Index	Index sequence	Score
Bratislava region	628 686	116300	18,50	1	8,00
Žilina region	698 274	57400	8,22	2	3,55
Banská Bystrica region	652 218	53300	8,17	3	3,53
Trenčín region	598 819	48900	8,16	4	3,53
Trnava region	563081	45400	8,06	5	3,48
Prešov region	809 443	58900	7,28	6	3,15
Košice region	780000	55000	7,05	7	3,05
Nitra region	704752	41600	5,90	8	2,55

Creative Class Index

Creative Class Index includes the number of employees in creative business at the rate of the total number of employees in particular regions. To creative jobs with data available were included arts, entertainment, culture, tourism, science and research.

Table 2 shows position of Žilina region, the third place with a score of 1.87 and the value of Creative Class Index which is 2.55%. In the first place again placed the Bratislava region with the value of index 10.91%. The least value of the Creative Class Index has the region of Trnava, only 1,33%.

Table 2. Creative Class Index [4]

Region	Total number of employees	Number of employees in creative business	Creative Class Index	Index sequence	Score
Bratislava region	434 145	47 372	10,91%	1	8,00
Košice region	283 044	8 371	2,96%	2	2,17
Žilina region	255 378	6 507	2,55%	3	1,87
Banská Bystrica region	212 815	5 241	2,46%	4	1,80
Nitra region	251 122	4 801	1,91%	5	1,40
Trenčín region	225 584	3 997	1,77%	6	1,30
Prešov region	234 097	3 954	1,69%	7	1,24
Trnava region	231 969	3 082	1,33%	8	0,97

Tolerance Index

Tolerance Index is a very important part of the Creativity Index, because it determines tolerance rate to foreign immigrants and artistically oriented population in those regions.

The creative class usually seeks a place in regions that are tolerant and open to new opinions and creative ideas. Tolerance Index includes Gay Index, but it is very difficult to obtain data for its calculation, therefore the modified index is focused only on the Multing Pot Index and the Bohemian Index.

Multing Pot Index

This index indicates the count of foreign immigrants at the rate of total population in region.

The results of calculating the Multing Pot Index determine Žilina region to the seventh place with the value of index 0.31% and score of 2,00. Worse score has only Presov region with the value of index 0.27%. The best results of this index reached again Bratislava region with a value of 1.24%, because Bratislava region is situated on frontiers with Austria and Hungary and also because Bratislava is the capital of Slovakia.

Table 3. Multing Pot Index [4]

Region	Population of region	Count of foreign immigrants	Multing Pot Index	Index sequence	Score
Bratislava region	628686	7779	1,24%	1	8,00
Trnava region	563081	4273	0,76%	2	4,90
Nitra region	704752	3366	0,48%	3	3,09
Trenčín region	598819	2201	0,37%	4	2,38
Banská Bystrica region	652218	2377	0,36%	5	2,32
Košice region	780000	2455	0,31%	6	2,00
Žilina region	698274	2167	0,31%	7	2,00
Prešov region	809443	2177	0,27%	8	1,74

Bohemian index

Bohemian Index expressed the number of artistically oriented people in region at the rate of the population of region. It could be mistake for the Creative Class Index, but there is a difference between them. In Bohemian index is the number of people working in the arts at the rate of total population, not of the number of employees as in Creative Class Index.

Žilina Region was ranked on the second place with the value 0.36% of the Bohemian Index. The first was the Bratislava region with the value 1.21% and the last region was the Trnava region with the value 0,18%.

Table 4. Bohemian index [4]

Region	Population of region	Number of artistically oriented people	Bohemian index	Index sequence	Score
Bratislava region	628686	7587	1,21%	1	8,00
Žilina region	698274	2537	0,36%	2	2,38
Košice region	780000	2310	0,30%	3	1,98
Nitra region	704752	2007	0,28%	4	1,85
Prešov region	809443	2137	0,26%	5	1,71
Trenčín region	598819	1574	0,26%	6	1,71
Banská Bystrica region	652218	1588	0,24%	7	1,58
Trnava region	563081	997	0,18%	8	1,19

Technology Index

By reason of data availability, this modified technology index includes only R&D index, does not includes the Innovation index (number of patents per capita) and the High-tech index.

R&D Index

R&D Index measures research and development expenditure as percentage of GDP.

Žilina Region was ranked in the fourth place with an index value of 0.38% and reached a score of 2.95, unlike Bratislava region, where the index value is 1.03%. The lowest costs in proportion to regional GDP spent Prešov region. The amount of the expenditure affects a number of innovative businesses in region, and also available funding.

Table 5. R&D Index [4]

Region	Regional GDP in mil. EUR	R&D expenditure in mil. EUR	R&D Index	Index sequence	Score
Bratislava region	17620,779	180,950981	1,03%	1	8,00
Trenčín region	6153,679	45,769502	0,74%	2	5,74
Košice region	7007,291	35,113719	0,50%	3	3,88
Žilina region	6995,118	26,329147	0,38%	4	2,95
Banská Bystrica region	5505,074	17,467357	0,32%	5	2,48
Trnava region	7246,223	21,582556	0,30%	6	2,33
Nitra region	7008,577	16,458052	0,23%	7	1,78
Prešov region	5358,758	9,624234	0,18%	8	1,39

4. Discussion

The final Modified Creativity Index for each region was calculated as a sum of scores for each subindex and final sequence represents which region offers the best environment for the creative economy development and what measures should be implemented if the results are not satisfactory.

Table 6. Modified Creativity Index

Region	Talent		Technology	Tolerance		Total score	Sequence
	Human Capital Index	Creative Class Index	R&D Index	Bohemian index	Multing Pot Index		
Bratislava region	8,00	8,00	8,00	8,00	8,00	40,00	1
Trenčín region	3,53	1,30	5,74	1,71	2,38	14,66	2
Košice region	3,05	2,17	3,88	1,98	2,00	13,08	3
Trnavský	3,48	0,97	2,33	1,19	4,90	12,87	4
Žilina region	3,55	1,87	2,95	2,38	2,00	12,75	5
Banská Bystrica region	3,53	1,80	2,48	1,58	2,32	11,71	6
Nitra region	2,55	1,40	1,78	1,85	3,09	10,67	7
Prešov region	3,15	1,24	1,39	1,71	1,74	9,23	8

Bratislava region was the best placed region in the chart of creativity index, with significant differences comparing to other regions. Bratislava region has reached the highest

score for every subindex, which means that it has enough college educated people and creative people in creative occupations, the appropriate level of spending on research and development, most foreign immigrants as well as artistically oriented people. At the end of the table, Prešov region was placed with a total score of 9.23, which is the lowest score at all. All its subindices are almost equal, which means that it is necessary to support all the areas relating to the development of creative economy. Žilina region took the fifth place overall with a total score of 12.75. The results of measuring the creativity index in Žilina region indicate that there are some inadequacies that obstruct the creative economy development. This means that the region has to implement some measures to be able to attract investors and provide an environment for the development of creative thinking that brings new, original ideas that can be transformed into innovations. Those can consequently enhance the competitiveness and overall sales in the region.

Impact of the results on Žilina region

Human Capital Index

Education is an important part of determining the environment for creative economy development, because well-educated people are able to use the knowledge gained during the studies and support the process of creating new ideas. In the case of human capital, Žilina region ranked the second place just behind Bratislava region. Of course, it is important that the university education results in the region depend on quality, not just on quantity. Therefore, it is necessary to invest in quality education and also arrange the cooperation among universities, businesses and government, allowing the transfer of knowledge and information. Investing in human capital brings ability to think creatively and innovative, which is one of the biggest competitive advantages not only among companies but also among regions.

Creative Class Index

Creative Class Index indicates that Žilina region is ranked the third. This suggests that the creative class, made up of people working in the field of arts, entertainment, culture, tourism, science and research, occurs in the region in relatively satisfactory numbers. The value of the index is 2.55%, but if we compare it to Bratislava region, there is a big difference between them. This situation is influenced by more opportunities at the creative economy, which are concentrated in Bratislava region. Even so, it may be argued that Žilina region is an interesting place for the creative class, which results from the analysis of cultural activities. Although conditions for the development of the creative class are good, it is necessary to pursue efforts to keep the creative class in the region because the creative class is a motor of

economy. The region must establish policies supporting free and independent environment that will attract and retain creative persons producing the original output.

Multling Pot Index

Multling Pot Index is a part of the expression of tolerance in region, which is needed for the reason that creative people tend to form in an environment that is tolerant and liberal. Žilina ranked the seventh place in this index. Although its value is low, it affects the overall tolerance only partly because also Bohemian index has a large effect on the expression of tolerance in region.

Bohemian Index

In terms of the Bohemian Index, Žilina region placed the second in the order. The ratio of artistically oriented people to the population of Žilina region is sufficient, so it could be a tolerant environment suitable for creative people. It also refers to part of population, bringing the production of creative assets in the region. Artistically orientated persons can realize their ideas and then transform the incentives into economic growth if they have the opportunity to share their skills and talent with other similarly focused people. This possibility offers the "cultural hub" station Žilina - Záríečie, supporting artistically talented people, by organizing various workshops, festivals and projects for the development of creative industries in the region, which in turn creates an effective base for the influx of new ideas and innovations.

R&D Index

The expenditures on research and development to GDP are 38%. This result brings Žilina the fourth place within all regions under consideration. The result indicates better research and development funding, which could bring the development of new technologies, new products and services that support the competitiveness of the region and attract new foreign investors which turns into creation of new jobs in the creative industries.

The measures supporting the economic growth in Žilina region

In pursuance of creativity index measured in Žilina region and the influence of expert advice and projects relating to regional development it is possible to specify the measures that can ensure the development of creative economy and economic growth of the region:

- investing in education to bring quality human capital;
- cooperation between institutions supporting better awareness of the issue of creative industries and the creation of conditions allowing the creative economy development;
- inter-regional cooperation;
- attracting new investors by creating interesting areas;
- participating in projects related to supporting creative economy development;

- focus on the area to be developed (e.g. Žilina region has many cultural and historical monuments, what represents an excellent basis for development of tourism, which is part of the creative economy);
- investing in research and development to enable the implementation of new ideas and benefits;
- state assistance allowing to fund areas which support the development of creative industries;
- organizing seminars and discussions aimed at disseminating the ideas of creative economy, because the more information people know about the issues, there will be the better potential for creative economy development.

Evaluation of the impact of creative industries on economic growth

Based on scientific studies, it is proved that the Slovak Republic is noticing the development of creative industries, as evidenced by growing sales in this area. The creative economy can represent an important platform attracting foreign investors to the region, which will affect the development of new innovative businesses and will contribute to increasing of employment. Advantage of the creative economy is its diversity, and especially that the region can focus on areas such as tourism, arts, culture, architecture and so on, which can attract not only foreign investors but also the creative class.

The creative economy considers the creative power of human capital as an important factor, which can think creatively, and brings innovations and the ideas reflected in the products and services, which affects not only competitiveness, but also increases sales and market value. Because the original products, services and new areas are interesting not only for investors but also for the customer, it is highly important to support and develop the creative environment in the region.

Focusing on the creative industries is not a top priority of economic and policy of the Slovak Republic yet. The first step of Slovak government is to create a programme for the years 2010 - 2014, and by the year 2012, the Ministry of Culture of the Slovak Republic subsequently will establish support measures aimed at:

- creativity and creative thinking;
- creating synergies among culture, education and industry;
- establishment of a special cross-section program of state assistance;
- analyzing tools supporting the creative industries, particularly the terms of state assistance and investment in innovation;
- improving customer services;

- protection of intellectual property rights;
- facilitating the digitization of archives and creative content and making them available to public;
- prevention of barriers to entry new markets. [12]

The most important source of people focused on the creative sector in Slovakia is beside the humanities and technical fields, also art schools. In the past decade, opportunities for graduates of art schools expanded, in consequence of formation new creative areas. The classic vision of the art school as a system of different studios and abstract art is no longer true. Today, schools offer courses focused on communication, multimedia production, as well as transport, product and industrial design.

Number of students studying creative areas is increasing, and it may be the reason of discussions that it can be a problem for the graduates to find a job. But on the contrary, data of the Ministry of Education proves the opposite. According to them, schools with artistic orientation belong to schools with the lowest unemployment rate of graduates. Creative fields of study are linked to practice and do not depend on the government strategy, that has started to focus on the creative economy just some time ago. [9]

If we focus on selected areas of creative industries in Slovakia, such as tourism, culture, science and research, education and sport, Žilina region has great potential for development of that area. To support the development of creative industries, there is a need of focusing on various projects relating to the development of creative issues. It is possible to get some inspiration from successful creative cities in Slovak republic, such as Bratislava or Košice. The most important projects created by these cities are Košice INTERFACE 2013 and The plan of economic and social development of the capital Bratislava for the years 2012-2020. The main objectives of these programs can also help in building a creative economy and industries of Žilina region. The most important action may affect the visibility of the base regions and cities. To ensure the development, it is necessary to develop projects and engage in various creative activities that will create a platform for management, marketing and overall promotion of creative industries and jobs in Žilina region. [4]

5. Conclusion

The creative economy as a trend in modern society is a new way of using goods and services. It increases competitiveness, creates new jobs, raises living standards of citizens, as well as human potential and supports freedom of expression.

The creative economy has developed gradually beside the various economies such as industrial, information, knowledge, and others. Residents began to move gradually into more

advanced industrial centers, which led to many changes and development of information and communication technologies.

The conditions for the creative economy development, given the geographic location, are not equal. Each country is trying to get the best position in a way to differentiate themselves from others. Creative and talented people play an important role in the economic development. The greatest impact of the modern economy experienced more advanced countries like USA, UK, Hong Kong and now also Sweden and Finland, which took the first places in the Euro-creativity Index, compiled by Florida in 2004.

The importance of creative sector is also proved by the amount of income from the creative sector. Nearly half of all income in the U.S. is currently produced in the creative industry. This is remarkable given that such value is normally created by the manufacturing sector and services sector together.

Slovakia is also a precondition for the development of creative industries because it is considered to be "the heart of Europe" and has a rich and colorful history. Specializing also in the creative sector could be the way how to reduce unemployment and increase the production of national wealth, but also diversify the major industries of the Republic.

The creative economy is a sphere, where it is very difficult to carry out the comparison and evaluation, since it includes the different areas. The aim of the paper was to evaluate the environment for the creative economy development in Žilina region and compare the obtained results with other regions of Slovakia. For this purpose we used the Modified Creativity Index, which helped to express the degree of talent, technology and tolerance in the researched areas. We used data obtained from the Statistical Office of the Slovak Republic. The results showed that Žilina region was ranked on the fifth place in total evaluation of environment for the creative economy development. Focusing on subindices, it has found out that many artistically oriented people live in Žilina region, which is very important for the development of creative economy. Huge influence on the development of creative people in Žilina region has a non-profit organization called The Station Žilina - Záríečie that provides a supportive environment for the presentation, realization and improvement of original ideas, which can help to economic growth and regional development.

The creative economy including creative workforce supports creative ideas that are converted into outputs, creates the competitive advantage over others. Then the region becomes interesting also for foreign investors, because they appreciate an environment which is open to changes and also creates new ideas and innovations. The influx of foreign investors increases jobs, reduces unemployment and improves economic situation of the region.

All these positive effects can be achieved mainly by implementing the measures supporting the creative economy in region, for example state assistance, funding research and development, creating projects and organizing the seminars and presentations on the creativity issues, enhancing education, supporting cooperation among regions, businesses, educational institutions and government.

This work was supported by the Slovak Research and Development Agency under the contract No. APVV-0101-10 and Institutional research 2012 – Creative economy in Žilina region.

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