Původ kreativní ekonomiky včetně demonstraci vlivu na ospodářský rozvoj

The Origin of the Creative Economy Including the Demonstration of the Impact on Economic Development

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Abstract:

Purpose of the article: This study presents the comprehensive theoretical framework of a new growth theory called “creative economy”. Recently, more and more of awareness is given to the creativity. Actually, the European Union nominates the year of 2009 as a year of creativity and innovation. On the other hand there is still not any unification concept of the creativity.

Methodology/methods: That is why there is a need to formulate new paradigm in a form of creative economy, so that we would be able to understand the role of creativity in economic and social development. To construct the basic pillars of creative economy, this study used selected milestones from previous growth theories and as well is inspired by the period of modern economic growth that began with the emergence of an Industrial Revolution.

Scientific aim: This theory defines a new emerging paradigm based on the presenting points. In the final section, theoretical conclusions of this work are documented by outputs obtained thanks to using a New creative index. This index was designed in such a way to come from the definition of creative economy while eliminate discrepancies of previous models.

Findings: The current outputs have shown that regions with a significant creative potential (expressed by the New creative index) are achieving higher rate of economic level, more favorable demographic structure, better results in employment and in others macroeconomic indicators.

Conclusions: The understanding of the concept of creative economy is the first step for setting strategy that will lead to ensuring competitiveness in today’s global world.

Keywords: creative economy, New creative index, Richard Florida, creativity, creative regions, competitiveness

JEL Classification: A13, O11, R11
Definition of the historical theoretical framework of creative economy

The most important role in the development of humanity so far played the ability to learn and use acquired knowledge. It won’t be the same in the coming millennium. The greatest value for us will be creativity, ability to create new knowledge (Dacey, Lennon, 1998). This fact is reflected in the development of economic theories that try to understand and describe happening in society. Just creative economy is very successful in this way. Its theoretical framework is based on the previous growth theories and is supplemented by an urban and a social-culture concept. Because it is a new view on the economy it is necessary to define it according to the existing theories.

Before emergence of the classical political economy it is necessary to mention benefits from John Locke. This significant philosopher recognized and described the basic points which form a backbone of the successful human development (Kmiec, 2005). According to his “social contract” is formed legitimate government aimed to protecting the right to live, liberty, health and property. The consequent emergence of the classical economics can be considered as the initiation of modern economic science.

The main representative of the classical economics, whose link is reflected in creative economy, is Adam Smith. He recognized benefits of a competition for resource allocation. If you divide the work effectively, you will have the higher number of outlets while maintaining the same conditions (Smith, 1998). This opinion analyzed David Ricardo in his law of comparative advantages (Ricardo, 1821).

The Cambridge school has brought an increased interest in the demand side. The main representative of this school is Alfred Marshall whose book “Principles of economics” (1890) introduced many new insights. From this book just for the purpose of the study is very important to recognize a positive impact of clusters on the economic development (Marshall, 1997). The formation of clusters is to obtain benefits from externalities (economics of scale, spill-over).

Among the schools, which have formed the foundation of creative economy the most, should be placed the Austrian school. Its front leader Eugen von Böhm-Bawerk has known function of a capital in 1889 (Bohm-Bawerk, 2006). Just the capital is leading to the satisfaction of human needs indirectly. It’s called deepening of the production in time which is followed by the economic growth. From the later authors of this economic direction must be mentioned Fritz Machlupa who the first has brought the comprehensive consideration of knowledge and informatics (Machlup, 1962). The sectors using knowledge and information are essential for an expansion of society. He regarded research and development as the basis of the information economy.

The significant similarity among current holders of creative economy you can see in the theory of businessman originating from Joseph A. Schumpeter 1912. This businessman-innovator is an intermediary who is able to establish results of human creativity into the production and to the markets. The new innovations disturb the market balance (Schumpeter, 1982). This dynamic view can explain relevant economic leaps we have been suffering in recent decades.

By Schumpeter’s theory of the economic cycle is possible to explain economic events with beginning of computers and internet. The recent defenders of Austrian school were Oscar Morgenstern (1902–1977) and Johan von Neumann whose were shaping a game theory. In their works (Morgenstern, Von Neumann, 1980) is reflected the meaningful influence of an institutional environment and social conventions to an individual decision. Continuing from these authors is necessary to introduce the influence of an institutional economics.

The institutional economics has evolved as a response to the structural and institutional changes supported by acceleration in the technological progress. Its representatives (Thorstein Veblen, John R. Commons) don’t agree with findings of the neoclassical economics. They claim that a man doesn’t behave rationally in many cases, but under the influence of the institutional environment. Later institutional economists focused their attention on the property rights and transaction costs (Ronald H.Coase, Douglass.c.North). The right set and accepted rules, that create a free public meeting for citizens, are essential part of the economic growth. The setting and defense of the institutional framework falls under the fundamental role of state in most countries. The goal should be to create conditions for the free market competition while minimizing state interventions in market processes (Eucken, 1950).

The neoclassical school has helped to shape the creative economy by its growth model (Luňáček, 2007, 2008). The main merit is attributed to Robert Solow who significantly innovated the original Keynesian’s Harrod-Domar model by a factor of technological progress (Solow, 1957). But to his shortcomings belong the fact, that he can’t explain the factor of technological progress. It happened until later using an endogenous growth theory where...
Paul Romer (1990; 1986) demonstrated the cause of the technological progress which was based on investment in knowledge.

And just knowledge is one of the main pillars of creative economy. From the view of historical theories, the University of Economics in Chicago has focused on impact of the knowledge development. The first, who introduced the concept of a historical capital into the economics, was Milton Friedman, but Gary Becker (1994), devoted much more to this topics. He defined a primary principle of investments into the human capital. The University of Economics in Chicago has also changed the view of information which understood as a scare resource (Stigler, 1961). The information and the knowledge are also a key factor of economic growth in these days. The following chapter is giving an overview how the theoretical framework defined here is reflecting in context of the real historical development.

1. The historical development and formation conditions for the emergence of creative economy

As for the economic growth, the history offers us a lot of examples from which we can obtain valuable conclusions for this time. The modern era of economic growth is related to the beginning of the Industry revolution in Britain and it’s associated with considerable discoveries such as for example a steam engine or a sewing machine. In fact, many discoveries was made before the Industry revolution however a large amount of labour force in agriculture didn’t allow the growth of living standard. In this period was manifested a negative growth theory from Thomas Malthus (1983) connected with expanding population.

At the end of the 18th century Britain saw the significant changes. First, there were institutional changes which were reflected in healthier public finance system, reduction of trade barriers or law enforcement (Mokyr, 2006). Second, it was ability to benefit from the new technological discoveries. Actually both changes have already underlined this basic idea pronounced by Adam Smith (1998). Increased mobility, larger markets and legislative support allow an efficient division of labour that contribute to the growth of living standard.

The detailed analysis of the industrial revolution has shown that the growth of living standard has no merit in important discoveries of the early revolution, but it’s so-called micro innovations during the second wave of the industrial revolution. In this period were taken original ideas and applied in greater extent in the completely different areas. The second wave has shown in income statistics far more. Per capita income after 1830 accelerated by 1,1% per year (Antrás, Voth, 2003; Mokyr, 2004). The second wave of industrial revolution has changed approach to the technology. The innovation system suddenly needed more cooperation and standardization.

Among the main reasons for success of the industry revolution in Britain doesn’t belong the largest number of discoveries and knowledge, but this success can be attributed to the role of capable businessmen and innovators, within the meaning of Alois Schumpeter (1982). At that time Britain had developed specializations that have significantly promoted spill-over effect into other industries – production of tools, watches, mining industry, production of ships (Cardwell, 1991). The rate of wage claims had an undeniable influence on the development of technology in Britain (Allen, 2009). With hindsight, the substitution of labour by capital has brought a rise in production and living standard exactly the same as Eugen von Böhm-Bawerk (2006) described in his growth theory.

The technological breakthroughs, that have caused the major waves of innovation, are often called as a general purpose technology (GPT). It’s technology with a lot of space for improvement and the following widespread using (Lipsey, et al., 1998). We can mention a steam as an example during the industrial revolution and an ICT promoted at the end of the 20th century. It was taking a long time in both cases before it was possible to manage these discoveries to usable form. Nevertheless the ICT and microchips period were shortened by half. The main reasons are the instructions of society from the previous development. In these days we can better estimate benefits of the GPT thanks to contribution of higher investments in human capital, flexible capital market and targeted support R&D (research and development), from both the private and public entities (Crafts, 2010).

The theoretical conclusions above-mentioned were confirmed by the real historical context. The modern economic growth relies on the support of the set properly institutions ensuring a freedom of individual and a right to property. On the other hand, the role of government should be limited to a controller and an enforcer of socially accepted behaviour. An opening of borders and increased mobility associated the distant markets. An efficient allocation and a cooperation promote the growth. The maintaining of competitiveness lies in knowledge and ability to
accept new opportunities. The initiation of the ICT is the latest wave of innovation that transforms current form of business and social norms meaningfully.

2. The present time under the influence of knowledge and innovation

The meaning of knowledge in the economic growth was firstly recognized in details by the representatives from the University of Economics in Chicago. Many authors looked into the theory of capital knowledge. For example Theodore W. Schultz (1961) justified investment in his own education on economic fundamentals. As well as Robert E. Lucas (1988) demonstrated a relationship between an accumulation of human capital and a size of income. The highly qualified and educated people are stimulating mutually and raising general level of knowledge in the region. This trend can be named as “knowledge clusters”, whose origin could be associated with a work of Jan Jacobs (1961; 1969) or Richard Florida (2002; Florida, Tinagli, 2004).

At the present time the accumulation of human capital is the main pillar of the economic growth (Bassanini, Scarpetta, 2002; Burniaux, et al., 2006). As the first, a term “knowledge worker” was defined by Petr Drucker (1994) This worker changes the view of the current production factors such as labour and capital. A knowledge economy was created on this basis, this economy determines way how to maintain a competitiveness through the public support for education, development of scientific cooperation and open innovation.

However the knowledge economy describes a current economic structure and events only from the narrow perspective of the knowledge development. Surprisingly many representatives of the knowledge economy refer in their works to a very strong technological influence and a globalization. Even Fritz Machlup (1962) examined a relationship between the knowledge and the information economy.

The term of information economy was used firstly by Marc Uri Porat (1977) thus enlarged the basic sectors of economy about an information sector. As an example, the studies in USA have shown a significant increasing staff in the information industry and on the contrary a significant decline in agriculture. Manuel Castells (1996; 1997; 1998) has brought the sociological perspective into the information economy. He pointed out how new forms of communication and work with information influenced our job and leisure activities. He pointed out for the formation of a new social class and also examined the reason of economic level and economic development in developed and developing countries.

As well as the knowledge economy, the information economy monitors a problem from the certain angle and isn’t able to accept all the variables. Just the creative economy tries to understand complex issues. Its basis is built on previous and current theoretical foundations which are also supported by the historical development.

3. The initiation of creative economy

The creative economy includes the previous growth theory and complements this theory by an urban and a social-cultural aspect. As the first ancestor of the creative economy can be regarded Jane Jacobs, who combined the development of the urban locality with people and conditions for life (Jacobs, 1961; 1969). Her most important followers are John Howkin and Richard Florida. In the book “The Creative Economy” (2004) written by John Howkins is described the initiation of a new creative manpower and new creative industries. Richard Florida extends this idea further in urban areas in his book “The Rise of Creative Class” (2002).

Many authors dealing with creativity narrow their focus only on a culture. In their research, they come to conclusions that the cultural sector has a potential to be the most relevant economic sector which will pull the economic level of the region (Scott, 1996; Zukin, 1996). On the other hand there are many more rational studies that prove the dependence of amenities in regions on the economic growth (Glaser, et al., 2001; Holzheimer, et al., 2005) or importance of the accumulation of human capital on the level of economic region (Glaser, Shapiro, 2001; Furdell, et al., 2005; Mellander, Florida, 2007; Shapiro, 2006).

One of the best known methods of measuring the creative potential is a 3T model from Richard Florida (2002) which was later extended for the needs of European countries (Florida, Tinagli, 2004). The similar methodology also use Stolarick for mapping of the 50 U.S.states (Stolarick, Adivarte, 2003) and study of Gerald Marlet and Clemens van Woerkens (2004) analyzing a representation of the creative working class in the Netherlands. The main benefits for the creative economy aren’t specific dates but a confirmation of basic trends involving in the significant influence of the environment on the successful formation region.

Outputs of the methods above are also a frequent target of criticism (Scott, 2006; Peck, 2005; Pratt, 2004).
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2008). Obtained results serve largely as a tool of politicians and lobbyists (Oakley, 2009). There are lot of unnecessary conflicts in many discussions resulting from an ignorance of the basic theoretical context. As Robert Lang (2005), describing fittingly, so Richard Florida and many others solve a problem “hen and egg” in that sense if artists and creative environment attract people or if creative people form the cultural and open versions. These discrepancies arise because of lack of uniform definitions in the creative sector and the ignorance of historical context which are the pillars of creative economy.

The creative economy is formed in these following basic points which are interrelated and partly built on each other:

- **Institutional framework** – a basic assumption for successful community development are a mutual agreement and cooperation among all individuals and public authorities. The appropriate institutional environment is a guarantee of the economical cooperation. Among the main principles in western style states can be count an ensuring of free market, civil liberties, rights to property and effective enforcement of these principles secured by state institutions. This rule may be different for each country or region. As an example we can mention countries of eastern and southern Asia that experienced a high growth of GDP per capita over the years 1965–1997 despite the fact that in these countries were greater state interventions than in western countries (Wade, 1990). To construction of the institutional framework is necessary to consider the local specifics and rely on the government’s leading role at the beginning (Stiglitz, 2003). This is also an explanation why the undeveloped countries cannot rely on taking over the western instructions to ensure the successful economic development (Averou, 2003). Similarly could be explained a dysfunctional effect of catching-up in advanced economies. This can be demonstrated in the European Union which is significantly handicapped against USA due to an excessive taxation and an over-regulation (Baily, Kirkegaard, 2004).

- **Global competition** – The shortening of distance and the cancellation of trade barriers increased the availability of markets to other producers and service providers. The companies that previously had a territorial monopoly, had to cope with the competition. It could be say two relevant examples in the course of modern history. The first is a development of transport which has contributed to international trade in goods. The second and more important is the initiation of the ICT which enabled trade in services (Friedman, 2005). The outsourcing of many services increased the efficient allocation again thereby promoted the growth of a product and living standards. As well as described the first classical economists in basic assumptions of economics (Smith, 1998; Ricardo, 1821).

- **Waves of innovations** – The social development is grateful for its progress to one basic property, an ability to learn. We were influenced by several more or less waves of innovation that brought “a creative destruction” (Schumpeter, 1982). These waves significantly influence the economic success of enterprises and the territorial units. To eliminate these waves began to place a greater emphasis on education, R&D and a management structure. The companies must now transform their business model to be ready and respond flexibly to the technological and process changes but also to the development of demand. At the same time, there were two major innovative concepts – a disruptive and an open innovation (Chesbrough, 2003; Christensen, 1997), which are necessary to implement into the management structure.

- **Lifestyle** – The latest wave related with the ICT and internet completely influenced jobs and free time. The requirements for existing job have changed and at the same time have appeared quite new jobs in a new specialization. The effectiveness of work may not be associated with an office but thanks to the ICT you can do your job anywhere and anytime. On the other hand, social networks and other forms of entertainment have appeared. As an example we can talk about a situation when a user sits down at computer and in moments he purchases a t-shirt in an English e-shop from a company based in U.S. This t-shirt were designed by the French designers and were made of an Indian cotton in Bangladesh. The t-shirt is delivered by a German transport company. In the meantime, the user bought a new PC game from Sweden and played with a friend from Turkey who with he also arranged a meeting at a conference in Beijing because they both work for a Canadian company R&D. The world has been changing.

- **Standard of living** – The industrial revolution refuted a negative populist theory from Thomas Malthus (1983) and showed a direction to the steady growth of living standard. It’s necessary to look for the cause of these changes in the efficient allocation of resources and the growth of knowledge. These factors were met the plan more or less in the developed countries. For this rea-
son people from developed countries have been achieving the significant surpluses which they are willing to exchange for non-essential goods. A newly created and rapidly growing demand for non-essential goods caused the considerable development of new areas of industry and culture.

The people, who decided to invest in their knowledge, achieve a higher income. If a person (or a society as a whole) moves to this level, he will change preferences. Suddenly he requires the adequate leisure activities, interest in facilities of his town, social structure, and ecology.

- **Creative workforce** – All previous factors led to increasing of the demand for workers who are educated, can think creatively and understand to the new ICT. In the last few decades has grown an enormous number of scientists, researchers, programmers, designers, architects and many other positions that don’t belong to the creative area at first sight but meet the basic conditions – knowledge, creativity, technology. This hard definable and high-income group create a productive part of the creative working class. Beyond, there is consumables part of the creative class resulting from the demand for non-essential goods and entertainment (music, movies, computer games and other culture and entertainment).

The individual factors of creative economy are coming to the conclusion that development of the production of creative workforce is evoking a formation of consumables part of the creative class. However, this is just a timeline as we know. There must be incorporated some impact of competition into this consideration. In the company it’s reflected in getting creative workers by offering a high-quality job with an appropriate salary. The creative employee has the potential to bring the outstanding benefit to the company.

The similar competition acts among the cities or the regions. The highest representation of the creative workforce operating on their territory, the highest economic results can be expected. If the individual territorial units want to remain competitive, they have to focus on the indirect support environment, the environment preparing appropriate conditions for work and life to their creative workers and as well as conditions producing workers themself.

Generally, the support of this city should focus on the institutional framework, conditions for work, civil facility and education. The particular steps cannot be determined because every country has its own specifics. Even though there is an effort to formulate an index that would allow to analyze more factors supporting the creative environment and thus to provide a tool for understanding and targeted support for the development of creativity in region.

4. A new creative index and its current implication

At the end of the work is briefly introduced a New creative index (NCI) which was create both to confirm the theoretical framework of creative economy and also has to eliminate mistakes from previous models. The construction of the NCI itself is described in the article “New Way of Analysis of Creative Centres within Europe” (Kloudová, Chwaszcz, 2011). It’s based on the Florida’s 3T model but content of the individual sub-indices is completely different. The construction of the NCI may not always consist of the same indices but should meet the basic parameters concerning the minimum number of used indices and their contents which must reflect the basic theoretical concept of creative economy.

The first analysis using the NCI confirmed clearly the conclusions resulting from the theoretical concept (Table 1). During the analysis, there were tested 37 German cities according to information obtained from an urban audit conducted in 2006–2007 by Eurostat. The result acknowledged a high correlation between the NCI and an economic advancement of region, expressed by DP per capita. As well as the other macroeconomic indicators speak in favour of region with higher level of the creative potential expressed by the NCI.

There were also tested the demographic structure in relation to the NCI and its sub-indices in this study (Table 2). The study has showed the higher level of population aged 25–54 and 25–34 years in the creative regions. It confirms the fact that people in productive life are more mobile and willing to move for work.

The next analysis has tested even 89 cities from countries like Estonia, Finland, Luxembourg, Germany, Netherlands, Spain, Sweden (Šimberová, et al., 2011). The data came from the same file as the previous analysis. Even in this wide set was demonstrated a strong positive relationship between the creative potential and selected economic indicators (Table 3).

As the last example confirming the conclusions of creative economy will be provided the outputs from an analysis (Kloudová, Chwaszcz, 2012) that was carried out within each region of the Czech Republic (Table 4). Although we would expect that the results in this country will not fully correspondent with parameters of creative economy (economy of the
Czech Republic has undergone a significant transformation in the last 30 years), in this case was also confirmed the influence of creativity on the development in this territory.

In the Czech Republic the creative regions reach the higher level of economic, offer more jobs, generate higher incomes per capita and build more new flats because their locality is required and they are more successful in the competition in region. The analysis of various indices throughout the NCI can be used to a detailed analysis of causes. The understanding of creative economy is currently a key factor for setting the competitive strategy for all regions.

Conclusion
The aim of this study is to create the comprehensive concept of creative economy. In the first step it was necessary to build on the previous growth theories. The fundamental aspects were found just in the period of classical economics, when Adam Smith and David Ricardo combined an economic success with a free market and an efficient allocation of resources. The following initiation of the industrial revolution indicated a direction which the

<table>
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<tr>
<th>NCI</th>
<th>Tolerance</th>
<th>Technology</th>
<th>Talent</th>
<th>Top/bottom</th>
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<tbody>
<tr>
<td>GDP per employed person</td>
<td>0.422</td>
<td>0.471</td>
<td>0.399</td>
<td>0.039</td>
</tr>
<tr>
<td>Proportion of companies that have gone bankrupt</td>
<td>0.125</td>
<td>0.084</td>
<td>0.233</td>
<td>−0.060</td>
</tr>
<tr>
<td>New businesses registered as a proportion of existing companies</td>
<td>0.437</td>
<td>0.425</td>
<td>0.451</td>
<td>0.074</td>
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Table 3. NCI and selected macroeconomic indicators in Czech Republic (correlation coefficient; 2009).

<table>
<thead>
<tr>
<th>NCI</th>
<th>Talent</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Employment per 1000 inhabitants</td>
<td>0.730</td>
<td>0.661</td>
<td>0.778</td>
</tr>
<tr>
<td>GDP (per inhab.)</td>
<td>0.860</td>
<td>0.805</td>
<td>0.821</td>
</tr>
<tr>
<td>Gross money income (person)</td>
<td>0.852</td>
<td>0.770</td>
<td>0.903</td>
</tr>
<tr>
<td>Vacancy per 1000 inhab.</td>
<td>0.755</td>
<td>0.675</td>
<td>0.793</td>
</tr>
<tr>
<td>Unfinished flats per 1000 inhab.</td>
<td>0.678</td>
<td>0.620</td>
<td>0.710</td>
</tr>
<tr>
<td>Finished flats per 1000 inhab.</td>
<td>0.862</td>
<td>0.836</td>
<td>0.825</td>
</tr>
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</table>

Source: Kloudová, Chwaszcz, 2012.
A new paradigm of creative economy is aimed at.

It has appeared new key factors for economic growth such as institutions, knowledge and information. These alterations have caused not only a change in trading but also in a way of life. It has formed a demand for new jobs which was important to occupy by people with appropriate knowledge and creative thinking. In the developed countries were rising the level of living standards together. It has appeared a demand for non-essential goods. These changes have caused both productive and also consumer creative workforce.

The presence of this working group in region is currently one of the main factors that decide about an economic success. For maintaining the competitiveness of region must be ensured a presence of the creative class on its territory.

The outputs of a newly defined paradigm of creative economy are documented in study by the results obtained thanks to a New Creative Index. This index has been formulated according to the 3T model of Richard Florida but with very different indices based on the concept defined in this study.

The outcomes from individual studies have confirmed the significant relationship between the creative potential of region and economic success. For example, in research of 37 german cities using the correlation coefficient have been demonstrated the significant positive correlation between the NCI and the GDP per capita at 0.71. The same indicator for 89 cities in 7 countries of EU was set at 0.42. Apart of this main indicator have been determined the positive relationship of many other macroeconomic indicators which confirms the basic premise of creative economy.

The future steps should be focused on deeper understanding of creative economy and its quantification. The aim should be to develop such a methodology that would be able to evaluate the influence of external interventions on the development of the creative potential in region. The understanding concept of creative economy is the first step for setting of strategy that will lead to ensuring the competitiveness in today’s global world.

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