SME, Quantitative Measurements Session

SOME QUANTITATIVE ASSESSMENTS ON THE ROLE OF CREATIVE INDUSTRIES IN EAST AND SOUTH EASTERN EUROPE- THE KEY TOWARD SUSTAINABLE KNOWLEDGE ECONOMIES

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ABSTRACT

Nowadays, the roles of creative industries are increasingly important for the knowledge-based economy as it produce knowledge, cultural goods with very high export value. Obviously, those countries in East and South Eastern Europe should explore the potentials of creativity as a new, major driver of competitiveness in the new economic era. In fact, studies regarding the emerging creative industries in this region have been developing since the beginning of the 2000s. The result of the increasing awareness on the importance of the Creative Industries for the development of their economies has grasped so much attention from policy makers and key players to build a healthy and substantial Creative Economy. In conclusion, the impact of the creative industries on the base of the Knowledge Economy is so clear, thus, the quantitative assessment on the role of creative industries is a key foundation for policy outcome toward the sustainable Knowledge Economy. Therefore, the research paper aims to use the quantitative method- statistics with software SPSS to produce the essential assessment for the development of Knowledge Economy in East and South Eastern Europe.

Key worlds: creative industries, the substantial Knowledge Economy, Creative Economy, the quantitative method.

1. Introduction

The role of creativity and of creative people in the knowledge economy is gaining increasing attention. Moreover, data gathered by various agencies in the countries from East and South Eastern Europe (EE and SEE) suggests that sectors which produce symbolic and provide employment to a growing number of people (European Commission, 2009). Most often these sectors called “creative industries”. My research is based on measuring contribution of creative industries to capture growing role of creativity in driving economic and social development, especially, the knowledge economy for the Eastern and South Eastern Europe countries.
The papers provide “a picture” about what these countries have made in the process of building the creative industries in 2001-2011, in addition, quantifiable contribution to the national economies. This includes how much the creative industries contribute to Gross Domestic Product (GDP); Productivity and Profitability; value of export by sector creative industries.

According to UNCTAD’s definition, the creative industries:

- are the cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as primary inputs;
- constitute a set of knowledge-based activities, focused on but not limited to arts, potentially generation revenues from trade and intellectual property rights;
- comprise tangible products and intangible intellectual or artistic services with creative content, economic value and market objectives;
- stand at the crossroads of the artisan, services and industrial sectors and
- constitute a new dynamic sector in world trade.

Fig.1 Classification of creative industries in Eastern and South-Eastern European countries from UNCTAD definition

Source: UNCTAD

2. Methodology and Data

The paper proposes an approach for the measurement EE and SEE creative potential for determining its capacity to attract and develop creative human capital. We define contribution of the creative industries to national countries by indexes: value added to Gross
Domestic Product; Productivity and Profitability by Creative industries; total export value of creative goods – added to GDP:

– Value added to Gross Domestic Product (% of GDP) is the net output of creative industries after adding up all outputs and subtracting intermediated inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources.

– Productivity of creative industries is defined by the ratio which between values added and employment costs. It is considered as an average measure of the efficiency of production of the creative industries.

– Profitability of creative industries is defined as operating margin, also known as operation income margin, operating profit margin and return on sales is the ratio of operating income divided by net sales, in percent. That is the way to look at the net profits of the business in the creative industries.

As the final steps in the analysis, looking at the relationship between how a country scores on the ECI and its recent performance or trend. To do so, developing the Euro-Creativity Matrix (apply with software SPSS). The Euro-Creativity Matrix is essentially a two-by-two chart that compares the ECI score to the Euro-Creativity Trend Index. It enables us to position the EE and SEE nations in European context and also position them in the future. The classification of the countries analyzed in four different categories: Leaders, which are countries with developed creative economies and with high growth rates in creative potential; Up and Coming, which are countries with lower European Creativity Index scores, but with higher growth rates; Losing ground, which are countries with relatively high European Creativity Index scores, but cannot sustain the growth of their creative capabilities; and Laggards, which are countries with low scores for their European Creativity Index and with low rates of creative growth.

The resulting indexes establish a quantitative base of policy makers in their efforts to prove the value of the creativity industries in EE and SEE countries.

3. Key event in the evolution of the creative industries in the countries from East and South Eastern Europe

In most EE and SEE countries, the task of developing creative industries policies has been assigned to the division of the national administration that is responsible for the protection and development of culture. The potential discovered and the increasing need to find new economic alternatives, found fertile ground in their brand new government structures for whole new policy developments. Obviously, the governments have begun to measure the size and scope of the creative industries as an important index of economic health. Studies regarding the emerging creative industries in EE and SEE countries have been developing since the beginning of the 2001s’.
Fig. 2- Key event in the evolution of the creative industries in the countries from East and South Eastern Europe 2001- 2009


Additionally, mapping creative industries documents were developed and have been carried out in EE and SEE countries, as a result, increasing awareness on the importance of the creative industries for the development of their economies, has reached policy and key players; first step in the building of a healthy creative economy. On the other hand, yet in fact, subsequent to the mapping endeavor have brought no considerable progress, and the creative industries sector’s position in the national economy is still largely undefined. Besides, the creative industries concept is very cautiously received in transitional countries. Moreover, conflation of market and consumer oriented creative industries with traditionally elitist cultural policy can create a rather conflicting mix. Therefore, it is difficult to generalize about these states of the creative industries in economies in transition.

From the reasons above, it is necessary to determinate particular indexes with aim to find and resolve the problem from EE and SEE countries in process of developing the creative industries.
4. Contribution of creative industries (CI) to economy of EE and SEE countries

4.1. Value added to national GDP

Tab. 1 - Value added of creative industries to national GDP in EE and SEE countries, 2003

<table>
<thead>
<tr>
<th>Country</th>
<th>Value add to national GDP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>1.2</td>
</tr>
<tr>
<td>Cyprus</td>
<td>0.8</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2.3</td>
</tr>
<tr>
<td>Greece</td>
<td>1.0</td>
</tr>
<tr>
<td>Hungary</td>
<td>1.2</td>
</tr>
<tr>
<td>Poland</td>
<td>1.2</td>
</tr>
<tr>
<td>Romania</td>
<td>1.4</td>
</tr>
<tr>
<td>Slovakia</td>
<td>2.0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2.2</td>
</tr>
</tbody>
</table>


In terms of the respective national economies, the value added to their GDP by the creative industries is highest in Czech Republic, Slovenia, Slovakia in EE and SEE countries which all above 2.0%. Meanwhile, value added in Cyprus and Greece is lowest which under 1.0%. In comparison to other industries sectors, the creative industries contribute significantly in economies, this is particular true for the economy as Czech Republic, Slovenia, Slovakia or Romania. There are few other sectors which contribute more than 2.0 % to the national GDP.

4.2. Contribution of creative industries to other industry sectors

The effect of creative industries on other sectors has differences among those countries. In fact, Greece, CI does not effect on others. However, CI in Czech Republic’s economy, has a strong influence on Food, beverages and tobacco with the high point – 2.8% and also in Poland with a highest contribution 4.7 %, besides, in Slovenia, on Chemical, man-made fabrics with 3.4%. Therefore, creative industries also have the substantial contribution to other sectors in economies of EE and SEE countries.
Tab. 2- Contribution of creative industries to other industry sector in SEE and EE countries 2003

<table>
<thead>
<tr>
<th></th>
<th>Food, beverages &amp; tobacco</th>
<th>Textiles</th>
<th>Chemicals &amp; man-made fabrics</th>
<th>Rubber &amp; plastic</th>
<th>Machinery &amp; equipment</th>
<th>Real estate</th>
<th>Computer</th>
<th>Cultural &amp; creative sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>2.2</td>
<td>2.0</td>
<td>1.1</td>
<td>0.4</td>
<td>1.3</td>
<td>0.4</td>
<td>0.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Cyprus</td>
<td>2.7</td>
<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
<td>0.2</td>
<td>0.0</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2.8</td>
<td>1.0</td>
<td>1.3</td>
<td>1.5</td>
<td>2.3</td>
<td>1.4</td>
<td>1.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Greece</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Hungary</td>
<td>2.9</td>
<td>0.0</td>
<td>1.9</td>
<td>0.9</td>
<td>1.2</td>
<td>1.8</td>
<td>0.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Poland</td>
<td>4.7</td>
<td>0.8</td>
<td>1.4</td>
<td>0.9</td>
<td>1.2</td>
<td>1.3</td>
<td>0.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Romania</td>
<td>1.9</td>
<td>2.1</td>
<td>0.8</td>
<td>0.5</td>
<td>1.0</td>
<td>0.5</td>
<td>0.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Slovakia</td>
<td>1.5</td>
<td>0.7</td>
<td>0.6</td>
<td>0.9</td>
<td>1.5</td>
<td>0.5</td>
<td>0.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2.0</td>
<td>1.3</td>
<td>3.4</td>
<td>1.4</td>
<td>2.2</td>
<td>0.4</td>
<td>0.8</td>
<td>2.2</td>
</tr>
</tbody>
</table>


4.3. Productivity and Profitability

4.3.1 Productivity

From the figure above, although the value of creative industries to national GDP in Romania and Hungary and is low but these countries have high productivity, even Romania has productivity index - 3.06% which is highest in European countries in which include western countries that have creative industry development. Moreover, others in EE and SEE also have high productivity index. This demonstrates that EE and SEE, especially, Romania have potential creative industries. If these countries have the policies in developing creative industries, definitely, CI will be one of the most important in EE and SEE countries.
4.3.2. Profitability

Profitability is proportional to Productivity, thus, Romania also have highest operating margin that is not only in EE and SEE countries but also in European countries. As we can see that IC brings a high net revenue for business owners in EE and SEE countries.

Fig. 3- Profitability of creative industries in EE and SEE countries, 2003 (%)

![Profitability Diagram](source)

Source: Economy of Culture in Europe, the European Commission, Directorate-General Education and Culture, 2006.

4.4. Export of creative industries

In recent years, creative industries have been among the most dynamic sectors in global trading systems. The average growth rates of creative services are increasing faster than those of other more conventional services. Obviously, we can see that from figure.4 below, export of creative industries contribute significant to their GDP, the highest is 1.88% GDP in Czech Republic, Slovenia with 1.33%.

Considering with the period from 2002 to 2011, creative industries is also sensitive to the crisis period, in which, in those countries , values of creative industries in export dropped down, especially in lowest point in 2009. However, Montenegro starts measuring value of creative industries in export with low growth rate. On the other hand, in 2011, showing signs of growing again with the highest growth rate is 20% in Bosnia, Moldova and Hungary, on the contrast, Greece, Montenegro, Albania, Armenia continue declining but this is with low rate.

Fig. 4- Contribution export of creative industries to GDP (% of GDP) in EE and SEE countries, 2011.

![Export Diagram](source)

Fig. 5- Growth rate of export in EE and SEE countries by creative industries 2002-2011

Source: calculate based on UNCTAD available at:
http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=14773
5. The countries’ movement in the short-run trends on the way of building creative industries

Fig. 6-The Euro- Creativity Matrix- database on 2006

Source: calculate based on “Creativity and Prosperity: The Global Creativity Index”

In the next years, EE and SEE’s position are:

- Leaders are Hungary. Their competitive position overall is as good, are proving successful and are likely continue to do well.
- Up and Comers- most EE and SEE countries in this case- have lower ECI scores but relatively high rates of creative growth. Their position is improving.
- Poland is in Laggards, have low ECI and low rates of creative growth. Poland will find it hard to compete in the European context and also global context. It means that the nation appear to be in a difficult position.

Most nations from Western Europe are in Losing Ground- they have relatively high ECI scores but are falling to sustain growth in their creative capabilities. They are falling behind in competitive terms.

EE and SEE have a huge potential in the future in process of developing the creative industries based on advantage competiveness with countries in Western Europe.
6. Conclusion

By promoting creative industries as major development in the region, the countries in EE and SEE have value significant of CI in economies. Especially, Romania have a potential development of CI meanwhile. Hungary, Czech Republic, Slovenia, Slovakia have high value of CI in all indexes considered. If these countries have the right policies in developing creative industries, definitely, CI will be one of the most important in EE and SEE countries. From analyzing indexes, CI have their origins in individual creativity, skills and talent and which have potential for wealth and job creation through the generation and exploitation of intellectual property. In addition, to realize this latent advantage that stems for their underlying attitudes and values, these nation will have to liberalize their policies to increase value of export in this sector. More than that, it is important to note that these countries are just beginning to develop the most rudimentary strategies to actually attract and retain talent, bolster their underlying creative capabilities and develop their people climates. Much more research is needed on the nature, extent and efficacy of these emerging efforts. Therefore, there is no doubt that at the EU level, creative industries will drive EE and SEE nations on an accelerated growth map.

7. References

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