Service Innovation – Driver of the Regional Competitiveness in Romania

by
Alina-Elena Iosif
The Bucharest University of Economic Studies, Romania
alina.balalia@com.ase.ro

Abstract. In order to highlight the connection between service innovation and the regional competitiveness in Romania, an overview on the most representative clusters within the eight regions of Romania was captured. Consequently, the data provided by the European Cluster Observatory and the development strategies at the national and regional levels were consulted. Methodologically, the document analysis was used. According to the European Cluster Observatory, the ‘apparel industry’ is the most representative domain in which clusters are developed within all the eight regions of Romania. Apart of the domains in which clusters are already present, such as software, maritime, wood, textiles, and ceramics, Romania has started to be more visible in the high-tech area. Concluding, each region or Romania has its particularities, generating a diversity of domains in which clusters may be developed. One way of increasing regional competitiveness is by developing clusters that are constantly interested in progress and determined to stimulate (service) innovation.

Key words: cluster, service innovation, competitiveness, Romania
JEL classification: L80, M10

1 Introduction

The current paper is focused on the service innovation developed within the eight regions of Romania and its connection to the regional competitiveness. Developing (service) innovation is one of the main purposes of the (industrial) clusters that are recognized as ‘instruments to improve competitiveness at both national, and regional level’ (MDRAP, 2013, p. 264). Consequently, service innovation leads to the increase of the regional competitiveness and clusters represent one of the main ways of reaching this target.

2 Overview on (service) innovation and regional competitiveness in Romania

Innovation is defined within the Oslo Manual (OECD, 2005, p. 46) as “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practice, workplace organization or external relations”. Generating and sustaining innovation is one of the main purposes of clusters. The concept of cluster refers to a geographic concentration of companies and institutions that belong to a particular field. Moreover, mutual interaction between the members of the cluster is developed. Michael Porter (1990 in wikipedia.org, n.d.) has also introduced and made popular the concept of ‘industry cluster’, which is equivalent with the ‘business cluster’, ‘competitive cluster’, or ‘Porterian cluster’. The industry cluster is defined as a group of similar companies placed in a particular geographic area that put in common markets, technologies and worker skill needs. Particularly, the connection between companies is mainly focused on developing a buyer-seller relationship (Oregonbusinessplan.org, n.d.). The positive effects of supporting service innovation within clusters are firstly noticed in the increase of the regional competitiveness. In most of the cases, service innovation is associated to service sectors, but lately its influence area has spread over the manufacturing firms (Chae, 2012; Kindström et al, 2012; Ulaga and Reinartz, 2011 in Carlborg et al, 2014), resulting new services and integrate product-service bundles. Service innovation is often promoted within clusters and its impact on competitiveness within countries and across national borders (Porter, 1998) is enhancing.
Further on, a snapshot on the particular case of Romania in relation to the (service) innovation and regional competitiveness is captured. According to the Innovation Union Scoreboard elaborated by Hollanders and Es-Sadki (2014), Romania is placed in the category of “Modest innovators”, meaning that the innovation performance is well below that of the EU average. A similar situation is also encountered at the regional level. The Bucharest-Ilfov is the only region of Romania that is positioned above the national level, being included within the “Moderate innovators” group. Explicitly, the region performs below the EU average on all indicators, but it presents several relative strengths in some particular directions (Hollanders et al., 2014).

Most of the dimensions included within the European Service Innovation Scoreboard register low scores in the case of Romania. Some of the lowest performance scores are related to the dimensions reflecting the ‘wider framework conditions’, ‘inputs to service innovation’, ‘throughputs to service innovation’, ‘outputs of service innovation’, and ‘innovation and business model generation’ (Hollanders, 2015).

Regarding the regional competitiveness, the lowest score of the Regional Competitiveness Index 2013 in Romania is associated to the South-East region (Annoni and Dijkstra, 2013). Moreover, this region is also among the last competitive European regions. At the opposite side, the most competitive region of Romania is Bucharest-Ilfov. According to the scores registered in the ‘EU Regional Competitiveness Index’ report (Annoni and Dijkstra, 2013), there is a high variability between the regions of Romania, especially when comparing them with the Bucharest-Ilfov region.

The current paper is mainly dedicated on drawing the big picture on the innovative performance and potential of the regions of Romania. This purpose may be reached by capturing the clusters that stimulate (service) innovation within the regions of Romania. Methodologically, the document analysis was used. The data related to the existing clusters within the regions of Romania was based on the search conducted by the European Cluster Observatory (ECO) (2011) and on the corresponding information extracted from the National Strategy for Regional Development 2014-2020 (MDRAP, 2013) and the (draft) regional development plans or strategies corresponding to the eight regions of Romania. The following section includes an overview on the most representative industries, according to ECO (2011), in which the regional clusters of Romania are developed.

3 Regional clusters of Romania by industries

The European Cluster Observatory (ECO) has made a hierarchy of the 92 strongest regional clusters of Romania and its results are exposed in table 1. Within table 1 the most representative clusters are bold. The apparel is the most representative and attractive industry for the development of clusters within all the eight regions of Romania. Overall, the industry of apparel includes many Romanian traditional companies that are well recognized at the international level, or companies which are supported and developed through foreign investments, mainly from Italy. The low level of wages is still considered to be the main competitive advantage of this industry. Based on the fact that Romania is still an agricultural country, five regions of Romania develop relevant clusters in the industry of ‘farming and animal husbandry’. Apart of these two industries, there are some particular regions that are well recognized as leaders in certain industries and that have developed appropriate clusters, for example the West region in the footwear industry and telecom. The tradition of certain players and the foreign investments that were made in the West region constitute the main pillars that supported the development of strong clusters within the two mentioned industries.

The most powerful clusters related to the industry of furniture are encountered in the North-West region. This may be due to the natural resources encountered in the area that
have given a competitive advantage to the region.

Table 1. Overall situation of clusters in the regions of Romania

<table>
<thead>
<tr>
<th>Industry</th>
<th>NW</th>
<th>C</th>
<th>NE</th>
<th>SE</th>
<th>S</th>
<th>B-IF</th>
<th>SW</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Farming and animal husbandry</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural products</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Footwear</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Textiles</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Building fixtures, equipment and services</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Construction materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leather products</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Paper products</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and gas</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Power generation and transmission</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maritime</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processed food</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal manufacturing</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation and logistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Automotive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Lightning and electrical equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Biotech</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Media and publishing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Education and knowledge creation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Financial services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Telecom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Heavy machinery</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


In the Center region of Romania, major players of the textiles’ industry are positioned. One exponential cluster of this industry is the Transylvania Textile & Fashion Cluster.

Overall, a contradiction between the data provided by the ECO (2011) and the data specified in the National Strategy for Regional Development 2014–2020 (2013) is noticed. The ECO (2011) uses data from Eurostat of the year 2005, and the Ministry of Regional Development and Public Administration (2013) reveals the state of the year 2012. Even though, the situation is not comparable in terms of the reference year, the results are extremely contradictory: ECO (2011) registers 92 regional clusters in Romania, while MDRAP (2013) evaluates that there are only 42 clusters. This may be due to the lack of correctly understanding of the cluster concept. Moreover, ‘the lack of convergence of their [studies] results and their utility’ is another minus of the studies that are trying to map the clusters within countries (Popescu, p. 22). The same author (Popescu, p. 25) suggests as solution for these major problems, ‘the elaboration of a common methodology for cluster identification’.

The following section refers to the main areas in which regional clusters are developed, based on the national and regional development plans/strategies of Romania.

4 Priority clusters in Romania

The National Strategy on Regional Development 2014–2020 (MDRAP, 2013) offers an overview on the domains in which clusters are existing or have potential of development in Romania. This strategy specifies software, maritime, wood, textiles, and ceramics among the main domains in which clusters are already present in Romania. By consulting the regional plans and/or strategies, one may notice that the domains in which the clusters activate are diverse and in accordance to the particularities of each region.

According to ADRBI (2014, p. 129), within the Bucharest-Ilfov region there are several representative clusters in the area of electronics.
(Elinclus innovative cluster), textiles – apparel (Romanian textiles concept cluster Bucharest), food industry (Ind agro pole Bucharest), aeroespaitale (Romanian aerospace cluster Bucharest), electric engineering (All electric pole), mechatronics (Mecatrec regional cluster), automatization systems (Sis-autom-int-pol Bucuresti).

As regards the Center region of Romania, the domains in which the clusters are developed concerns alternative energies, wood processing, food industry and electro-technic industry (ADRCentru, 2013).

Clusters dedicated to medical Imagistics, apparel-textiles, tourism, creative industries and media-IT are found in the North-East region of Romania. The region has the necessary potential to create new clusters in the area of food industry and tourism (ADRNor Nord-Est, 2013).

In the North-West region, four clusters are specified in the ‘Plan of development of the North-West Region 2014-2020’ (ADRNor Vest, 2013). The clusters are corresponding to the furniture industry (Cluster Mobilier Transilvan), IT&C (Cluj IT), green energies (TREC), and food industry (Agro-Food-Ind Napoca).

The creation and development of the cluster networks is also mentioned within ‘The development strategy of the South-East region for the programming period 2014-2020’ (ADRSSE, 2013).

Within the region of South-Muntenia a working innovative cluster is represented by Dacia Renault Cluster Pole at Pitesti. The cluster is composed of 150 companies of various dimensions that carry out different activities in the automotive industry (ADRSud-Muntenia, 2013). One of the main priorities of the authorities is to support clusters that are functioning within the most representative areas of the region. Some of the most performing domains in the South-Muntenia region are represented by the automotive industry, electric and electro-technics, agriculture, and renewable energies (ADRSud-Muntenia, 2013).

Similar to the other regions of Romania, the South-West-Oltenia Region is at an incipient stage in terms of clusters. Within the draft of ‘The plan of regional development South-West Oltenia 2014-2020’ (ADRSud-Vest Oltenia, 2014) is specified that the region has only five clusters, as follows: Pole of competitiveness Research-Development-Innovation Automotive South-West Oltenia, Oltenia Tourism Pole-Innovation and Traditions in Tourism-TurOlt InTT, ITC Oltenia Cluster, Pole of competitiveness INOVTRANS, and TURINN cluster.

The automotive industry represents the dominant sector in the West Region of Romania and a global cluster is corresponding. Apart of the activities related to the main sector of automotive, this cluster is connected to the sectors of textiles, metals, plastic, rubber, tools-machines and electronics within the region (ADRVest, 2014). The top ten sectors/clusters within the West Region of Romania starts with the automotive industry, followed by retail, constructions, textiles, agro-food, wholesale, road transport, mining, ITC and furniture (ADRVest, 2014).

5 Conclusions

The current paper highlighted that the regions of Romania have potential to innovate by using clusters as an instrument. The diversity of domains in which clusters are already existing or will be developed in the regions of Romania leads to the conclusion that each region has its particularities.

The ability to enhance (service) innovation is varying from a region to another within the European Union, and the Expert Panel on Service Innovation in the EU (2011) is suggesting several recommendations that may lead to a well exploitation of the service innovation in the future. In order to achieve this target, several key success factors focused on an “effective leadership by the regional authorities”, “a strong regional identity”, “forging closer links between related sectors”,

www.ijept.org
“raising the customer experience through high quality services”, and “investment in infrastructure and skills” (Expert Panel on Service Innovation in the EU, 2011, p.14) should be developed. The same panel of experts recommends the formulation of well-targeted strategies, by offering as example the area of sustainable tourism that may be supported by mechanisms like the Structural Funds. Regarding the particular case of Romania, the Structural Funds represent a highly important instrument for increasing the competitiveness of enterprises within the hospitality industry (Pădurean et al, 2015). In addition to the European funds, other relevant funding sources for clusters are considered the Romanian and other international organizations funds (Dan, 2012).

Overall, stakeholders should develop modern structures of collaboration between them in order to reach an efficient use of the specific resources corresponding to the region. The structures of supporting businesses, such as industrial parks, business incubators and clusters have a positive effect on the economic development of the localities. One way of increasing regional competitiveness and productivity is by developing clusters that are constantly interested in progress. In almost all the plans/strategies dedicated to the regional development in Romania, clusters are evoked as a driver of innovation that stimulate regional competitiveness.

Acknowledgment

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/159/1.5/S/134197 „Performance and excellence in doctoral and postdoctoral research in Romanian economics science domain”.

References


**Author description**

**Alina Elena Iosif** is a teaching assistant at the Faculty of Business and Tourism within the Bucharest University of Economic Studies from Romania. Alina holds a doctorate in Business Administration having as subject the cooperation between the business actors and the public authorities for the provision of services of general interest. Her research interests are focused on entrepreneurship, public – private cooperation, services of general interest, service innovation and regional development. She has been actively involved in international projects and has published various papers on the specified topics.