Heritage as an alternative driver for sustainable development and economic recovery in South East Europe

Innovative interpretation of heritage management in industrial clusters

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Abstract

The problems of sustainable development and economic recovery emerge full blown in a rapidly globalizing world. There is an efficient heritage management as one of solving conditions. This paper describes the heritage management interpretation in industrial clusters. Author’s research is based on innovative approach and includes an explanation of the heritage development process, new classification of industrial clusters and the heritage management model.

Keywords: heritage management interpretation; heritage development process; heritage management model; industrial clusters; industrial cluster classification.

1. Introduction

A highly competitive global economy allocates too little resources to an industry. That is why the development of sustainable, innovative responses from industry is now vital. Nowadays cluster development problems are becoming ever more urgent because cluster development remains one of the most effective ways to increase competitiveness. The sustainable development clusters also can help to improve international competitiveness. Currently there is a lot of scientific research related to cluster theory (M. Porter, 1990), (S. Rosenfeld, 1997), (J. Schumpeter, 1934), (A. Weber, 1929).

It is worthwhile to say that success of cluster development is strongly connected to heritage management in industrial cluster. In the opinion of the author the heritage management in industrial clusters includes tangible and intangible elements.

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2. Model specification

2.1. The heritage development process

The heritage development process in cluster should pay attention to development of such main elements as people, infrastructure, innovations, knowledge, see Fig.1.

As we can see people play a vital role in the heritage development process. People generate important explicit and tacit knowledge. Explicit knowledge can be described by words, numbers, formulas and algorithms. Tacit knowledge occurs on the personal level which depends on actions and experience of specific person. There are three variants of knowledge development: from tacit to tacit, from explicit to explicit, from explicit to tacit, from tacit to explicit (I. Nonaka, H. Takeuchi, 1995). Such types of knowledge let to set up innovations which can transfer between the cluster members (Amisse S., Muller P., 2009). As for infrastructure it supports the development of the rest segments of heritage in industrial cluster.

2.2. The classification of industrial clusters

For clear understanding the heritage management model it is necessary to analyze the classification of industrial clusters. The author’s classification of industrial is based on two approaches: content and process approaches, see Table 1.

The content approach includes clusters of first, second and third order depending on the structure and measure of concentration of cluster members around of the cluster core. The first order cluster includes one large-scale enterprise forming a core of cluster which strongly surrounded by cluster members playing supplementary role in cluster core functioning. The second order cluster is substantially the same as the first order cluster but unlike the last one the core of such cluster contains several one large-scale enterprises. The third order cluster consists of many different cluster members. The cluster core has the diffused nature in this case.
Table 1. Classification of industrial clusters

<table>
<thead>
<tr>
<th>Approach</th>
<th>Classification</th>
<th>Explanation</th>
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<tbody>
<tr>
<td></td>
<td>first order cluster</td>
<td>centered nature of cluster core (one organization)</td>
</tr>
<tr>
<td>Content approach</td>
<td>second order cluster</td>
<td>centered nature of cluster core (one organization) (several organizations)</td>
</tr>
<tr>
<td></td>
<td>third order cluster</td>
<td>diffused nature of cluster core</td>
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<td>Process approach</td>
<td>cluster of coordination</td>
<td>organization interconnection for getting an external effect under the geographic concentration</td>
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<td></td>
<td>cluster of cooperation</td>
<td>long-standing relationship between geographically localized organizations</td>
</tr>
<tr>
<td></td>
<td>cluster of networking</td>
<td>self-organizing system of interpersonal relationships, confidence and institutional rules</td>
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The process approach which in turn includes such models of cluster development as the cluster of coordination, the cluster of cooperation, the cluster of networking. Usually the cluster of coordination occurs with the support of government, develops on the level of motto. As for the cluster of cooperation it can be the result of historical industry development or spontaneous cooperation of organizations without dominate participation of government. Advanced type of clusters is the cluster of networking. The functioning of cluster members is based on achievement of the main cluster target. The target of cluster can transform with time because of external environment influence. This condition gives an opportunity to forecast the development of cluster in future.

2.3. The heritage management model

One of the most important and relevant global problems is ecological problem in the planet. Ecological situation can be improved by using heritage management in industrial clusters. Nowadays at the internet and the age of globalization it becomes possible. The heritage management model includes the global coordination center of heritage in clusters and clusters all over the world, see Fig.2.

![Fig.2. Heritage management model](image)

The main functions of the global coordination center of heritage in clusters are coordination and supporting interdisciplinary research activities and projects, collecting heritage information from industrial clusters, sharing
information with all participants.

3. Discussion

According to introduced research it was decided to analyze an automotive cluster of The Republic of Tatarstan. Participants of the automotive clusters of The Republic of Tatarstan are automobile manufacturers, suppliers, engineering and consulting companies, research organizations, universities, banks, infrastructure and local authorities. All members of the automotive cluster can be divided into three levels. The first level consists of leader companies such as the largest automobile corporation of the Russian Federation OJSC “KAMAZ” and the special economic zone “Alabuga”. The second level includes small and medium-sized businesses which supply utilities and services to key companies. The third level involves the local business climate which provides human and financial resources and infrastructure to key companies.

The automotive cluster of The Republic of Tatarstan is second order cluster and cluster of cooperation. The automotive cluster of The Republic of Tatarstan has historical and culture heritage, especially it appeals to OJSC “KAMAZ”. The main task for now is to save old and develop new heritage in the automotive cluster. In this context it is reasonable to pay particular attention to the research and development area regarding better ecological parameters of machines, fuel substitution, combined power plants, launching into the manufacture of automobiles of Euro 4, 5 class, better capacity for deadweight ratio and fuel economy, complication of the technology, producing of new product line with usage of new material and electronic systems. For getting better result it is necessary to prepare the proper infrastructure and personnel trainings with retired employees together.

4. Conclusions

The study results show that the heritage management in industrial clusters has special aspects such as classification of industrial clusters and heritage development process. The author’s future research will focus on the more detailed analysis of the heritage management on the global level.

References

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