

WCBEM2013

Multi-criteria Model for Evaluation of Cluster Initiatives: the Comparative Case Study

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Abstract

Latest development in the economic and business realm is currently influenced by the formation of cluster initiatives. There are several reasons for and various expected results from this kind of cooperation. Up to now lack of effort has been devoted to development and consequent evaluation of a consistent and comprehensive set of indicators that could be applied for the cluster settings. This paper outlines the multi-criteria model for evaluation of cluster initiatives and explains its inner structure. Since there is a lack of case studies focused on evaluation of cluster initiatives, the model is consequently applied and a particular cluster located in the Czech Republic is evaluated. The results reveal that five main groups of indicators can be successfully applied in the realm of the ICT industry. The cluster itself is considered as functional in terms of communication and cooperation processes. However, attention paid to innovations seems to be the weakest point.

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Keywords: Cluster initiative, Evaluation, Sustainability, Case study;

1. Introduction

The human society is considered as sustainable only if it has the ability to develop for generations while ensuring of material needs and on the other hand without tendency to catastrophic collapse or long-term decay. Therefore, the phenomenon of sustainable development was defined. For instance, the World Commission on Environment and Development (WCED) consider it as a process that ensures the development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). There are plenty of areas related to this concept, e.g. industry, trade, engineering, or agriculture (Jacobsen et al., 2011). Furthermore, there are also endeavours to apply this concept at the organisational level or the national level (Ougolnitsky & Usov, 2008). However, there is a minimum of studies that relate sustainable development and the evaluation of cluster initiatives that represent neither one organisation nor the whole industrial sector or national economy. Apparently, there are methods available for evaluation of cluster initiatives, but these are mostly based on reductionism in general and econometry in particular. Therefore, the aim of this paper is to introduce a method for complex evaluation of cluster initiatives and apply selected segments of this method to two existing clusters. These clusters are located in the same region of the Central Europe in the Czech Republic, hence the environmental, social, legislative, or economic conditions (Hamplová et al., 2011) are considered as identical for both subjects. However, both clusters significantly differ in their business domain. Whereas the Hradecký IT cluster (HIT cluster) operates in the field of information and communication technologies (ICT), which is considered as progressive and significant

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contributor to the economic growth (Ceccobelli et al., 2012), the Czech Stone Cluster (CSC) is focused on stonemasonry, which has been traditional branch for several centuries in the Czech lands. Hence, the introduced method represents the effort to push the evaluation process towards holistic point of view and application of systems thinking principles (Bureš, 2006).

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Acknowledgements

This paper is created with the financial support of the ESF project INDOP CZ.1.07/2.2.00/28.0327 and the specific research project 2/2013 “Cooperation mechanisms of network organisations” funded by the University of Hradec Králové.

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