THE ROLE OF SOFT FACTORS ON THE SUCCESSFUL COOPERATION OF CLUSTERS

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Abstract: This paper presents a research model and its theoretical background. The study focuses on the operation of clusters and cluster-like organizations. The author in the analysis of the simultaneously competing and cooperating organizations considers the commonly used economic indices as a result, and the "soft" features of organizations as necessary tools for the implementation of the aim.
The objective of the study is to show – by the analysis of organizational culture, the management competences and the satisfaction of member organizations – what characteristics further and what characteristics hinder the success and sustainability of the cooperation.
Key words: cooperation, organizational culture, success, competence, cluster

1. INTRODUCTION

How can we decide, whether a collaboration, a strategic alliance is operating in a successful and sustainable way?

Firstly, the characteristics and factors – that might affect the success of the collaboration – need to be identified.

However, it is to be defined, what shall be considered as success. Since the topic is economic entities, success is generally measured with the help of "hard" economic factors. As shown by this research as well, the Doctoral School of Management Sciences and Business Administration of the University of Pannonia in Hungary focuses primarily on "soft" factors, just "when even soft is hard".

2. MOTIVATION

According to Porter's (1998) definition, a cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities.

Even at first sight, it is difficult to simultaneously compete and cooperate. Whether, what might determine in the long term sustainably and successful?

Effective cluster operation is predominantly characterised through the display of geographical, economic, and possibly, employment data. The most comprehensive survey so far "*The Cluster Initiative Greenbook*" (Sölvell et al., 2003) also followed this line of thought. The field of quality features is a less researched area; therefore no complex, verified procedure has been drafted to assess successful collaboration. This might be due to two reasons.

Either this examination does not yield neither practical nor scientific benefits, or hard factors provide enough information, consequently, it is not even worth conducting research based on characteristics, that are so difficult to measure, and thus difficult to assess.

Therefore, the challenge is great, but in spite of this, or maybe just because of this, it is worth attempting.

Today, the formal co-operation of business associations, NGOs, scientific, educational and municipal organizations is centrally subsidised at both national and EU levels.

The most tangible form of this is the join into clusters of competing and collaborating companies and the organizations of the non-profit sector.

Our objective, therefore, is to use our own viewpoints and methods for a step-by-step mapping of the state of Hungarian clusters in order to gain experiences concerning, whether there is a connection between the examined soft characteristics and the sustainable operation.

3. RESEARCH QUESTIONS

The research questions have partly of methodological partly of empirical nature.

It is a methodological issue, whether it is possible to create a framework that allows for the definition of success based on the soft factors examined and considered as important. This is necessary to determine, how effectively the mapped clusters operate.

The experiences of the examination should contribute to finding the answer to the following questions:

Which dominant organizational culture or culture mix enhances cluster environmental collaboration, and which ones might be considered as counterproductive factors?

Which management competencies are essential for successful collaboration?

Can the cluster as an organization, or the existing characteristics of another member compensate for the incidentally missing competencies of certain cluster members?

4. RESEARCH MODEL

The model was prepared to enable the expected results to answer our research questions.

Therefore, the work has to be commenced with the phase of "research design" to establish the method, and then this has to be tested more and more widely.

As it was the case when drafting Altman's (1994) bankruptcy model, now a significant number of factors will be analysed as well: organizational culture, management competencies, satisfaction, and many of their related factors.
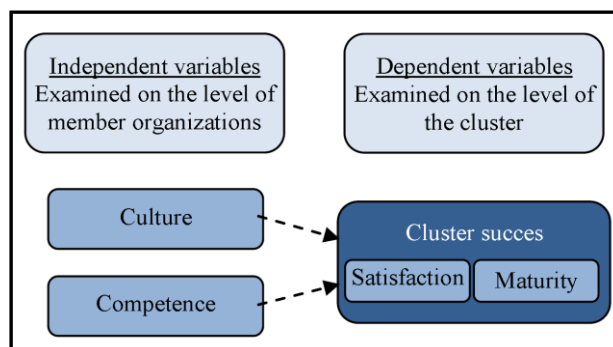

Fig. 1. The research model

A similar method was used by the authors to map knowledge management in *Cultural Impact on Organizational Knowledge Sharing* (Ovari; Gaal & Szabo, 2007), in which 7 determining factors of 37 knowledge management elements were identified.

Along this line of thought, the indicators that are proven to affect the success of collaboration must be selected on the basis of the preliminary surveys. Then, similarly to the bankruptcy prediction model, these variables can be assessed with the help of multivariate discrimination analysis.

The technical feasibility of the examination cannot be ignored either. No matter how interested we are in as many characteristics as possible, the questionnaire cannot be endlessly long; therefore only those questions can be asked, that will yield relevant conclusions.

4.1 Organizational culture and management competences

Clusters are not created for the implementation of single projects. The presence of strategic thinking, long-term planning and vision are vital for durable and sustainable operation even under general conditions. The organizational culture can play a significant role if external conditions change (Szabo, 2009).

When surveying the culture of members, the method measuring cultural dimensions proposed by Cameron and Quinn (1999) is used. Of the many methodologies examining culture, this one allows for the mapping of the culture of the future and the present.

The questions concerning culture extend to six fields:
- dominant characteristics of the organization,
- leadership style that permeates the organization,
- management style,
- organizational glue or bonding mechanisms,
- strategic emphases of the organization,
- criteria of success, that determine, how victory is defined.

The same idea serves as the basis for the analysis and assessment of management competences. It is a priority task to prepare the competence map of members. The key competencies are specified and – providing they foster the successful operation of clusters or cluster-like organizations – they can be defined as "key success factors".

4.2 Satisfaction of member organizations

So far, the examination has occurred from the standpoint of an external point of view, however, success can be analysed from another aspect: seen from within, i.e. what extent cluster participants are satisfied with the collaboration.

With starting clusters this can be surveyed only as a plan, which, however, can be accepted as a baseline.

It would be a great help even in our private lives, if we formally thought over and recorded, what would make us satisfied in the short, medium and long term.

Nothing can show the success of a formal collaboration more accurately than the internal viewpoint. The members establish a cluster or join one with specific aims and strategic ideas. The objectives are specified – based on the secondary literature – with a preliminary conception in mind, however, there can be changes in these questions in the test phase. Nevertheless, according to our assumption, those clusters can be considered as successful, whose operations and results its members are satisfied with. This is so even though satisfaction is a subjective feature that is difficult to measure.

4.3 Maturity of the cluster environment

Our model contains also a more tangible criterion to the efficiency of the cooperation. Here the organization can be considered as successful, if its lifecycle demonstrates unbroken development according to the definitions describing the individual level of development. The used terminology which based on the *"The Cluster Policies Whitebook"* (2004), the examined clusters are grouped the following levels of development:
- agglomeration,
- emerging cluster,
- developing cluster,
- mature cluster,
- transformation.

4.3 Description of the research project

The method is first tested in officially accredited innovation clusters in Hungary. This sector is ahead of others both in development and experiences. Furthermore, this sector can be most reasonably expected to flexibly assist in research implementation.

Then the tested method will be further developed for other sectors. Primarily the renewable energy sector, which is experiencing rapid development, than the rather strong automotive, machine and electronics industry, which has been prospering for a long time, are in the centre of interest. 53 clusters with nearly 1000 members have been identified in the field of renewable energies, while the automotive and machine industry has 22 clusters with more than 400 members.

Hopefully, surveys conducted in these two sectors will yield enough knowledge in order to allow for the achievement of relevant results.

5. CONCLUSIONS

The research method was established with the aim of gaining experiences concerning the features assisting and hindering sustainable operation.

It can be generally said, concerning the examination of the operation of business organizations, that *"The Soft factors create special values."* (Csath, 2008). These factors can be considered as "soft", while economic indices can be considered as "hard" features.

Our examination focuses on these soft features, since in the case of clusters the collaboration is based on social values, the cohesive force is the collective vision and trust, that is the basis for effective cooperation, can only be realised through this.

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