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The Influence of Managerial Leadership Roles and Organisational Culture on Business Cluster Operation

Doctoral (PhD) Dissertation

REPERTORY OF THE THESES

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1. The importance and the objective of the research

Concerning efforts to improve the competitiveness of the European Union as well as among the aims of Hungarian economic improvement more and more attention is directed to innovative clusters implementing regional cooperation.

By integrating profit-oriented market members to complete and reinforce each other and by joining civil services, universities, research institutes and NGOs the utilisation of innovation potentials has significantly increased aiming at a more economical operation.

Business clusters have been defined by various authors in several different ways. Establishing definitions and standardisations, the diversified analysis of the observed natural processes and their description resulted in defining clusterisation as an economic and development method and as an effective tool for the members of the market. As a result, the process has been reversed. Setting the revealed advantages as targets along the natural (evolutional) process of clusterisation a deliberate endeavour has appeared too. Sölvell (2008) names this phenomenon planned business cluster. This tool being handled consciously, clusterisation and its external effects established result in a successful cluster operation.

The analysis of the inner motivation, the goals and success factors is important since clusters do not only have to be founded but sustainably operated as well. Member organisations form in order to reach their collectively defined targets and expect to gain benefits. The function of the cluster manager is to make these advantages attainable. In order to do so a sufficient management has to be assigned to lead the cluster. This management is capable of holding its members together, who may stand in conflict of interest in other fields of life, and guiding competitiveness within and outside the cluster in a positive direction.

On the one hand, a set of technical instruments is available to reach these targets, on the other hand the manager has to be in possession of managerial qualities making the utilisation of these methods efficient and successful.

Organisational features like culture or the managerial leadership roles gain exceptional importance in the life of a company. The analysis of these structures is even more significant in connection with the cooperation among the organisations.

The objective of the dissertation is to detect and demonstrate the characteristic features and intrinsic motivation of organisations defining themselves as clusters in Hungary and to present the importance of management, managerial leadership roles and the comprehension of organisational culture.
In focus of the analysis stand organisations applying these instruments in a conscious way, defining themselves as business clusters, setting up their operation based on approved patterns and describing their goals accordingly.

A study analysing the inner operation of management and members ranging the whole national operation has not been carried out yet.

My general query concerning the topic is what types of management-oriented features national clusters have. The answers for these general questions will provide the basis of the methodological and empirical questions.

A methodological issue is how cluster operation can be described and whether it is possible to create an assessment tool to define cluster success.

The empirical questions aim to demonstrate whether there is a connection between management features – organisational culture and leadership roles – and successful cluster operation and whether it is possible to define the management characteristics of a successful cluster.
2. Hypotheses and the research model

Deriving from the nature of the theory of clusters and its research our first goal is to clarify which aspects of this diversified field are involved in the analysis.

The scope of the present study is the cluster, focusing on the inner drivers and the participants within the organisation – their members and cluster management. It is a less exploited area of research resulting in difficulties of definition and assessment.

From the perspective of the present research, one of the most difficult tasks is to describe the notion of cluster not only because there exist various definitions from various aspects but because none of these definitions consider cluster as a management issue. Most studies apply the natural approach according to which cluster is considered traditionally a clusterisation because of the evolving regional or economic focus during the process. Since the present approach is different from the classical external approach, accepting the validity of all definitions, the necessity to create my own definition has arisen. Because of its theoretical and practical importance it is inevitable to define what the present analysis defines as cluster. A practical aspect is to clarify the organisations involved in the analysis while its theoretical importance lies in the fact that the results presented in the following part of the dissertation will be valid in regard to these organisations.

Since a management problem has been put in the centre of focus, organisations having a cluster manager or management organisation defining themselves as clusters have been analysed.

Theoretical approaches often mention that the directives of member organisations have to be explored and understood. (Huggins, 2008; Szanyi, 2008) Several important studies are aimed at presenting the significance of management. (Huxham–Vangen, 2005; Bruun–Damgaard, 2011) These aspects are seen as success factors of a cluster. However, an assessment tool integrating or separating success factors has not been found in literature.

To measure cluster success a newly developed assessment tool – a continuous maturity model – has been set up. In order to establish the scopes of definitions it has to be determined what types of determinant factors will be taken into consideration when analysing cluster success.

The operation of a cluster can be considered successful if its members are satisfied with the advantages offered by the cluster membership and its activity shows characteristic features of clusters.

In the analysis the typology of organisational culture by Cameron and Quinn’s (2011) Competing Values Framework has been applied. The method is expediently supported by empirical analysis, its utilisation is not only recommended in business environment, but also in educational institutions and other NGOs.
The method offers several scopes of analysis, the most essential of which, the dominant organisational culture, will be applied to characterise management as an organisational feature.

During the research Quinn’s (1988) managerial leadership roles have been used owing to the standardised framework and the results obtained integrate well with the measurement of organisational culture. In accordance with the theory of the method, the result of the survey is considered as an organisational feature characteristic for the analysed management. The method is expediently complex, the manager can be characterised well with the help of the results.

Out of the several different assessment options the dominant managerial leadership role—gaining the most significant value of managerial leadership roles – will be applied to describe management as an organisational characteristic feature.

**Hypothesis 1**

*Management-approach features of business clusters can be identified on the basis of which a descriptive definition of Hungarian clusters can be created.*

The first hypothesis is aimed to create a new concept. Its novelty derives from the fact that the present approach differs from the previously applied aspects. Instead of looking at the business cluster from an external point of view, it is defined internally from the viewpoint of the manager as a conscious management task. Analysing the structure of the cluster definitions and the characteristics of national clusters, the first hypothesis states that management-approach features of clusters can be identified on the basis of which a definition can be formed.

**Hypothesis 2**

*Determinant factors of member satisfaction can be identified assisting the description of member satisfaction. Taking satisfaction factors and characteristics of cluster operation into consideration a continuous maturity model can be set up to evaluate cluster success.*

The second hypothesis serves the development of an assessment method. The indicators of the evaluation system are member satisfaction and the operational features of the cluster. The main issue regarding member satisfaction is how pleased members with the benefits granted by cluster membership are. Looking for inherent structures, the directive of the members is assumed to be describable, hence member satisfaction becomes measurable.

With the help of Hypothesis 2 a continuous maturity model is to be set up, elements of which are satisfaction and operational activity described by determinant factors. Applying the created assessment method a maturity index defining cluster success can be calculated.
Hypothesis 3

A correlation can be drawn between organisational culture describing cluster management and success characterised by a cluster maturity index.

As stated in the third hypothesis the organisational culture has an impact on cluster success. On the side of the independent variable characteristic features of dominant organisational culture of the cluster while on the dependent variable side cluster success are located.

Hypothesis 4

A correlation can be seen between the management role characterising cluster management and the characterised success with the help of a cluster maturity index.

According to Hypothesis 4 managerial leadership roles influence cluster success. On the side of the independent variable characteristic features of the dominant managerial leadership role while on the dependent variable side cluster success are placed.

The research model has been established in a way that it is suitable for surveying the elements of the analysis and to present the potential correlations and relations.

The conceptual part of the research is related to the elaboration of the management-approach definition of clusters. As stated in Hypothesis 1 (H1) a definition can be created if the significant features of management approach are identified.

A methodological question is what indicators are to be implemented to describe cluster operation and how member satisfaction can be assessed. Another important issue then is how a measurement tool describing cluster success can be set up.

Hypothesis 2 (H2) states that member satisfaction can be characterised by determinant factors while cluster operation by indicators of equivalent cluster operation literature. By the integration of these two components a continuous maturity model to assess cluster operation can be established.

The metrics created in order to make success measurable is a new continuous maturity model. Success is described by maturity, while maturity is calculated by a maturity index involving determinant factors. Applying the continuous maturity model as an assessment method the now measurable cluster success is incorporated as a dependent variable in the model.

The empirical questions aim at the soft characteristic features of cluster management and want to demonstrate the correlation between cluster management features and cluster success. On the side of the independent variable characteristic features of the dominant managerial leadership role while on the dependent variable side cluster success are situated.
According to Hypothesis 3 and 4 cluster success is influenced by organisational culture and managerial leadership roles. Since they can only be analysed separately, these are presented by Hypothesis 3 and Hypothesis 4.

The structural model of the research

Table 1. The structural model of the research
3. Research methodology and research sample

The study discusses national and international literature providing theoretical basis for the elaboration of the topic. In the field of cluster theory, definitions, standardisation and questions of cluster management are in the centre of attention while the analysis of management literature focuses on the presentation of organisational culture and managerial leadership roles.

In the empirical research qualitative and quantitative methods have been applied.

As a qualitative method interviews with 10 cluster managers have been conducted. On the basis of their experiences a case-study has been compiled. To conduct the interview a layered sample-taking technique has been applied which is a type of random (variante) sampling. When planning the interviews several aspects such as activity field, geographical location and status of accreditation have been taken into consideration.

The quantitative part of the analysis has been carried out in form of an extensive questionnaire involving cluster managers and cluster members from all regions in Hungary. Formally established clusters aiming at benefitting from cluster membership, directed by a manager person or management organistaion have been analysed.

The questionnaire compiled for the cluster managers can be divided into three separate sections.

The first section puts an emphasis on features of categorisation, cluster operation and activity. To measure cluster operation such indicators have been chosen with the help of which national characteristic features can be described in the analysis of cluster operation.

In the second section the managerial leadership roles applying Quinn’s method (1988) of a seven-point Likert Scale have been assessed. Our aim was to learn from managers how often they used the 32 listed leadership activities and how important they were considered.

In the third section organisational culture has been mapped. In the interest of analysing management characteristic features in a standardised framework, Cameron and Quinn’s (2011) model of Competing Values Framework has been utilised. The method ranges the following 6 scopes of questions: the main organisational characteristics, organisational management, management style, cohesion, strategic importance and success factors. 100 points had to be divided among the 4 statements for the single organisational features by the participants depending on to what extent the statement was valid for their organisation.

The questionnaire compiled for the members is similar to the previous one except for the latter consisting of two sections only. The first section includes the features of categorisation as well while in the second part members have been asked about their level of satisfaction of cluster membership based on the 32 benefits listed. Two aspects have been taken account of. Firstly, the substantial cluster targets according to the relevant
literature. Secondly, the aims of the clusters set for themselves in their written public documents. The assessment has also been aided by the above mentioned Likert scale.

The survey presents all the organisations having an actual availability that is altogether 216 clusters.

As far as its members are concerned, basic multitude could only be determined by estimation. We have clear information about the number of membership of accredited innovational clusters. However, in the case of the other clusters data disclosed by the management questionnaires have served as the basis of the analysis. Considering the average membership number the whole population counts approximately 3600.

Each cluster involved in the research sample have been visited several times. The questionnaire has been composed in an electronic or printed format based on the need of the future participants.

Out of the 216 addressed clusters 115 have responded to the questionnaire either in form of a managerial or a member questionnaire. More than half of the whole population has provided feedback. Altogether 97 cluster managers have participated in the survey, while 486 member questionnaires have been received.

Only properly filled in questionnaires have been used in the analysis and member questionnaires have also been connected to the relevant manager questionnaires. As a result, the analysed database consists of 396 elements which means more than 10% response rate.

Since the quantity of elements of the whole population is low the research cannot be considered representative. The gained results will be valid for the analysed sample which has to be considered by the generalisation of the findings.
4. The findings of the research

The main objective of the present study was to highlight the importance of management in the analysed field and to confirm the significance of managerial leadership roles and organisational culture. In order to accomplish this, characteristics of organisations defining themselves as clusters in Hungary and their inner motivations had to be detected. Apart from the study of the relevant literature, interviews and a questionnaire-based survey has been conducted among Hungarian cluster managers.

The management oriented aspect resulted in having to define the objective of the study since most definitions of the naturally evolved organic clusters found in literature were written on the grounds of a geo-economic approach. Firstly, basic characteristic features and management approach qualities have been identified which characterise clusterisation as a conscious method. Organisations defining themselves as clusters aiming to benefit from their cluster membership have been analysed. These organisations have been officially formed and their operation is supervised by a manager person or a management organisation. This is one of the most important limits of the interpretation of the results. The statements of the research are valid for organisations which have been established deliberately and already have a leader. The results of the present research cannot be applied for clusters formed by natural economic or geographical concentration – without a formal organisation or management.

Within the challenges of management it is considered a specialty that these organisations are no autonomous legal entities and do not manage themselves. From this aspect they can be seen as NGOs. However, they manage notable financial, infrastructural and human resources which cannot be considered an ordinary management task. Hence the importance of understanding the targets of the members, what advantages they are about to gain when founding or joining a cluster and to what extent they are satisfied with their cluster membership.

Benefits of cluster membership have been collected by the analysis of literature, on the basis of the interviews and the public cluster records. Cluster members have been interviewed about these benefits as well. The results have been analysed by factor analysis where a well-explicable underlying structure has formed. The aims of the members are grouped around 4 main ideas. One dimension consisted of business targets serving a more productive, effective and more economical operation. A different dimension includes aims connected to innovation, R&D opportunities and development. The rest comply targets serving knowledge and receiving information as well as aims to gain financial support.

Cluster member orientation can be characterised well with the application of these 4 dimensions. The profiles presented by the various categorisational features represent the diversity of personal cluster membership targets. According to the dimension of business targets a statistically justified significant difference has been found between business associations and educational institutions (Sig=0.032), as well as between business
associations and research institutes (Sig=0,029). There is a difference between the single business sectors too. Along the main component of information knowledge clusters depict a significant difference from the automotive – engineering and electronic industry (Sig=0,018) as well as in the field of environmental industry (Sig=0,010). Describing benefits serving innovational goals satisfaction varies significantly between members of the automotive industry and the environmental industry.

Having identified and defined the management-approach factors, a method to analyse cluster success has been developed. The operation of a cluster can be considered successful if the members are satisfied with the benefits gained from their cluster membership and their operation shows characteristic cluster activity. Getting to know the aims of the members serves the understanding of their inner motivations. Literature discusses two main aspects of ideas, the industry driven business and the research and development driven innovational directive which in the present research have been analysed using factor analysis. These two dimensions describing satisfaction have been incorporated in the continuous maturity model developed to assess cluster success. The third dimension served the measurement of cluster operation.

Applying the results of the empirical research to assess success, a new three-dimensional continuous maturity model has been established. Success has been characterised by maturity, while maturity has been calculated by the cluster success maturity index with the help of determinant factors such as membership satisfaction and cluster operation.

Following the ideas of the research model, clusters have been defined from the aspect of the manager first. Subsequently, a measurement tool to assess cluster success has been set up. As a next step, correlations between cluster success and the soft characteristic features of cluster managers such as organisational culture have been explored.

On the dependent side of the model cluster success, while on the independent side the characteristic features of management can be found. Both organisational culture and managerial leadership roles have been characterised by the utilisation of the dominant features of the Competing Values Framework.

Analysing the effects of the dominant organisational culture a significant difference (Sig<0,05) showed between the single cultures. The highest average cluster success maturity index is part of the dominant Adhocracy culture indicating a significant difference (Sig=0,012) from the culture of Hierarchy. This means that the characteristic features of cultures belonging to the open system management model influence success positively. Members show a higher level of satisfaction hence cluster operation is more active and more sustainable. As far as management is concerned, decision-making process should be fast, flexible and creative combined with a risk-taking, innovative management style.

A long-term plan of the dominant Adhocracy culture is continuous development. Its managers are venturous, innovative and capable of foreseeing the future. Success index is also positively and significantly (Sig=0,020) influenced by the dominant Market
organisational structure as opposed to *Hierarchy*. The most important aim of this culture as part of the *rational goal model* is to achieve efficiency, productivity and profit.

While analysing the dominant managerial leadership roles 8 different managerial leadership roles have been applied according to Quinn’s model such as the *Innovator*, the *Broker*, the *Producer*, the *Director*, the *Coordinator*, the *Monitor*, the *Facilitator* and the *Mentor*. Since the role of the *Broker* has only shown dominancy in two cases, it has been eliminated from the further analysis.

Conducting variance analysis it has been proved that managerial leadership roles significantly (Sig=0,000) influence cluster success maturity index. The results have shown that the role of the *Mentor* is accompanied by a significantly higher cluster success maturity index than that of the *Monitor* (Sig=0,002), the *Facilitator* (Sig=0,000), the *Innovator* (Sig =0,000) or the *Coordinator* (Sig=0,005). The dominant *Director* role also presented a significantly higher value (Sig=0,005) compared to that of the *Coordinator*. To define cluster success most of all the role of the *Mentor* has to be exploited since its characteristics and the competencies connected to it have proved to be suitable for successful management.

By integrating the indicators of the Competing Values Framework (CVF) it can be confirmed that the organisational cultures of *Adhocracy*, *Market* as well as the *Mentor* and *Director* roles have an effect on cluster success. These features considered as a positive CVF mix, the results of the variance analysis have proved the findings of the research. Clusters with a positive CVF mix depict a significantly higher cluster success maturity index (Sig = 0,000) than the ones belonging to other categories.

Apart from organisational culture and managerial leadership roles the effects of two different features have been analysed in the research too. Results have shown that the existence of a strategy influences success index in a positive way. Differences have been discovered when analysing whether the cluster was run by an organisation established for this certain aim or merely by a single manager person. The statistical analysis has proved that success index is significantly higher (Sig=0,027) when the cluster is managed by an organisation.

To sum up the results, to understand successful cluster management, member directive and management characterisitic features are essential. The management has to be aware of the directives of its members and satisfaction results connected to it. As far as organisational and management characteristic features are concerned, the manager needs to be intent on creating the organisational cultures of *Adhocracy* and *Market*, its managerial features have to be developed in the direction of a *Mentor* and *Director*. To resolve supposed contradictions, the approach of Competing Values Framework has been used. The presence of single characteristic features is not an alternative, they have to be presented simultaneously, supplementing each other. In certain management situations one or the other feature might be more beneficial. Besides a positive CVF mix, successful clusters are also aided by an existing and valid strategy in which management tasks are not provided by a single manager person but by an organisation established for this purpose.
5. **Answering research questions**

The analysis intends to map the present state of national clusterisation.

- *To what extent can definitions and approaches discussed in literature describe national clusters?*

National cluster features and the internal aspect applied during the research have resulted in a basic difference in definition. The organisation of a cluster always occurs according to a consciously developed and collectively accepted system. This, most of the time written construction serves as basis of cluster organisation. Analysing the written documents we can come to the conclusion that in the survey organisations with no independent legal representatives are involved. Each organisation has preserved its sovereignty and is fully independent legally, statistically and in regard to ownership as well. Using the cluster as a tool, members are looking for benefits from their cooperation and collaboration. The set targets and the types of benefits they would like to gain have been analysed on the grounds of the literature and the documents of the cluster. Each basic aim has been detected in correlation with the categorisation of business targets and innovation. Within the national features two additional groups have been identified. One of them aims at the financial opportunities and benefits, the other centres around the importance of information. The 4 groups of aims describing national characteristic features are *business, innovation, information and support*.

- *Is it possible to create a definition describing cluster from the point of view of management?*

Based on the qualitative and quantitative results of the empirical study a management-approach definition describing national characteristics has been compiled:

A form of cooperation between different enterprises and NGOs without a legal entity but having established formally, in which the founders and the joining members keep their sovereignty entirely and determine their individual goals around the aspects of business, innovation, information and support by expoliting the opportunities within their cooperation. Their collaboration is directed by a manager person or management organistaion based on a collectively acknowledged and consciously developed system.

As a next step the following methodological questions have been composed.

- *How can member satisfaction be assessed?*

The main issue regarding member satisfaction is how satisfied they are with the advantages provided by their cluster membership. To present the inherent structure behind the answers factor analysis has been utilised. Two meaningful determinant factors also supported by the literature have been identified aiding the description of member directives. The created
factors made member satisfaction measurable along the dimension of innovation and business.

- Is it possible to create a measurement tool – a continuous maturity model – to characterise cluster success?

Applying the 3 determinant factors a cluster measurement tool has been constructed. The success calculated by the model can be interpreted on a three-dimensional coordinate system as a pyramid. The bigger the volume of the pyramid the higher success it indicates. If cluster operation is more active, or cluster members are more content with the benefits offered by their membership, it shows a higher value on the axis and therefore the volume of the shape will be larger. With the application of a new, three-dimensional maturity model a continuous variable was born to define cluster success.

Success is characterised by maturity, while maturity has been calculated by a cluster success maturity index involving determinant factors such as membership satisfaction along the dimensions of business and innovation and cluster operation.

- What is the connection between the cluster success defined by the established measurement tool and the organisational features such as organisational culture or managerial leadership roles?

By the analysis of the connections the aim was to determine what kind of success index can be connected to the single managerial leadership roles. Features, the dominance of which results in a higher success index, have been detected. The dependable variable is a high while the independent variable a low nominal variable. Hence variance analysis has been utilised to describe relations. It has been assessed that cluster success index is significantly influenced by the analysed characteristic features.

- What is the role of the organisational culture in successful cluster operation?

Cluster success maturity index connected to dominant Market and Adhocracy organisational cultures is significantly higher than those of the dominant Hierarchy culture.

- What is the function of the managerial leadership roles in successful cluster operation?

Cluster success maturity index connected to the role of the dominant Mentor is significantly higher than the roles of the dominant Monitor, Facilitator, Innovator or Coordinator. Cluster success maturity index of the dominant Director managerial leadership role shows a significantly higher value than the role of the Coordinator.

During the analysis of the relations it has been justified that there exists a mix of managerial leadership roles closely connected to cluster success. By integrating the results of the organisational culture and managerial leadership roles a mix of managerial leadership characteristic features has been created (positive CVF mix) accompanied by a higher cluster success maturity index. The average value of cluster success shows a significantly higher value when the dominant Market or Adhocracy organisational culture is combined with a Mentor or Director role.
6. Statement of the theses

Thesis 1

Management-approach features of clusters are definable on the basis of which a definition describing national clusters can be set up as follows:

A form of cooperation between enterprises and NGOs without a legal entity but having established formally, where the founders and the joining members keep their sovereignty entirely and determine their individual goals around the aspects of business, innovation, information and support by exploiting the opportunities within their cooperation. Their collaboration is directed by a manager person or a management organisation based on a collectively acknowledged and consciously developed system.

When researching the definitions of the literature their formal elements have been identified and it can be concluded that they contain the base and the structure of the organisation. The aims of the cluster and the tools to reach their targets are also set including the organisational features of cohesion. Through the analysis of the interviews, case-studies and published cluster documents the characteristic features describing the present Hungarian economic situation best from the aspect of the manager have been detected. To analyse the results of the survey conducted among cluster members, factor analysis has been used. On the grounds of the results of the statistical analysis cluster member directives centre around 4 main dimensions. The 4 dimensions include business directives aiming at productivity, effectiveness and a more economic operation, as well as targets to gain knowledge and information, a dimension connected to innovation, R&D opportunities and receiving benefits and development targets. Observing the general structural frame of the definitions the present definition has been created applying the results of the empirical analysis.

Thesis 2

A new continuous maturity model making cluster success measurable can be set up. Success is characterised by maturity, maturity is calculated by a cluster success maturity index using determinant factors such as satisfaction on the dimensions of business and innovation.

The continuous maturity model to assess cluster success has been created with the application of indicators with the help of which management effectiveness can be characterised. The operation of a cluster is considered successful if their members are contented with benefits granted by the cluster membership and its operation reflects an activity characteristic for clusters. In line with the literature, two determinant factors have been identified that can be interpreted well and makes member directives analysable.
**Thesis 3**

A significant correlation can be drawn between the dominant organisational culture and cluster success characterised by a cluster success maturity index. The cluster success maturity index of the organisational cultures of Market and Adhocracy are significantly higher.

In the analysis cluster management has been described in the Competing Values Framework by Cameron and Quinn’s dominant organisational cultures of Adhocracy, Market, Hierarchy and Clan. The connection between cluster success and organisational culture has been analysed using variance analysis. Based on the findings of the statistical analysis and the pertinence of the hypotheses it has been proved that the dominancy of certain types of cultures cluster success index also shows a higher value. Cluster success is positively influenced by characteristic features of the Market and Adhocracy organisational cultures.

**Thesis 4**

There is a significant connection between the dominant managerial leadership role characterising cluster management and cluster success indicated by a cluster maturity index. Cluster success index connected to the dominant Mentor and Director roles shows a significantly higher maturity value.

According to the Competing Values Framework, cluster management has been defined by the 8 dominant managerial leadership roles of the Innovator, the Broker, the Producer, the Director, the Coordinator, the Monitor, the Facilitator and the Mentor. The role of the Broker had to be eliminated from the analysis since its dominancy has been only present in few cases. The connection between cluster success and the dominant managerial leadership role has been analysed with the application of variance analysis. Based on the findings of the statistical analysis and the pertinence of the hypotheses it has been proved that with the dominancy of certain types of managerial leadership roles cluster success index also shows a higher value. Cluster success is positively influenced by the roles of the Mentor and Director.
7. Independent novel results

The present dissertation studies clusters from the aspect of management sciences and is considered a rather innovative approach. Although some studies on clusters do place special emphasis on the importance of management only few research has been conducted from a management point of view. Cluster management, its soft characteristic features and the inner motivation behind cluster success have not been in the focus of the analysis before.

In the course of the empirical analysis all available national clusters have been contacted. Therefore, the study can be looked at as an extensive survey covering all regions of Hungary. Because of the low figure of the whole population the analysis cannot be described as representative but it can be assumed that all willingly participating cluster managers and members have been interviewed. Since such an extensive survey has never been conducted in this field, the statistical findings of the analysis are considered innovative.

In the qualitative part of the research management-approach features have been identified based on the literature, the documents of the clusters and the case-studies compiled from the interviews and a new definition has been created.

With the help of the questionnaire-based survey conducted among cluster members benefits of cluster membership and member satisfaction have been analysed. Based on the findings, 4 main components of member directives have been identified according to which the interest of members centres around business, innovation, information and support. Using the main components the member directives are well-explicable offering useful information for cluster politics as well as for cluster managers. During the analysis several clear statistically proved differences have been revealed. Differences in directives have been justified along the business dimension of business associations and research institutes, while along the dimensions of innovation and information significant differences can be detected among the single business sectors. Results based on the expansive empirical studies describing the inner motivation of cluster members have not been compiled yet. The findings of the present research are suitable for the recognition of the differences among categorisational characteristics. In the centre of focus are the findings of the automotive and environmental industry which have been compared and contrasted in various ways. They have different profiles and significant differences can be shown in the activity of the operation of the single sectors.

The innovation of the findings of the research lies in the new, three-dimensional continuous maturity model to assess cluster success. Management is considered successful if the members are satisfied with the advantages gained by cluster membership and their operation shows adequate activity. Cluster success index is an index integrating member satisfaction and cluster operation.
The application of a cluster success index enables a wide range of analysis. Comparative analyses can be conducted based on the single sectors, activity fields of clusters or categorisational features of members such as legal status, gross revenue and the number of employees. All these factors are necessary to map the national image of clusterisation.

The importance of the organisational culture has to be given special emphasis. Its elaboration is significant to all participants, manager and employed. It gains special importance in fields where the aims of various organisations have to be integrated. In the field of cluster analysis, such research has not been conducted before which also verifies the innovative nature of the present findings.

Beside the analysis of the organisational culture by Cameron and Quinn’s model the mapping of Quinn’s managerial leadership roles serves additional information and also enables the integration of the 2 features in a unified framework. This way cluster management can be described and understood and on the basis of the successful management profiles development directives can be set.

Throughout the analysis features of successful cluster operation have been mapped. By statistically justified methods it has been proved that the organisational culture of Market and Adhocracy present a higher maturity index indicating membership satisfaction and successful cluster operation.

8. The practical application of the findings

The developed assessment method and the data presented could on the first hand be applied by cluster development economic policy in practice. Its utilisation could also be profitable in the analysis of the current accreditation system or the influence of national benefits. However, the comparative analysis of managerial assessment in itself contains substantial information.

Also cluster managers can benefit from the research for two reasons. On the one hand, with the application of the method member needs can be regularly mapped and compared. On the other hand self-recognition and the knowledge of the cultural and managerial leadership role profile of management can serve as an important basis to set development objectives. The ranking of cluster advantages can be explored and membership satisfaction can be assessed and based on member directives strategies can be developed and targets can be set.
9. References


10. Publications

INTERNATIONAL PEER-REVIEWED LEARNED JOURNAL ARTICLE


HUNAGRIAN PEER-REVIEWED LEARNED JOURNAL ARTICLE


Lippert Róbert – Gaál Zoltán – Kovács Tamás, A vezetői szerepek és a szervezeti kultúra hatása a klasztersiker érettségi modelljére, Vezetéstudomány, (megjelenésre vár)

INTERNATIONAL PEER-REVIEWED PROCEEDING


INTERNATIONAL CONFERENCE LECTURE
