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TOWARDS A CLUSTER IDENTITY
– THE CASE OF ROBOCLUSTER –

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ABSTRACT

In today's business world, there is a major accent put on differentiation and the creation of sustainable competitive advantage. An agreed method in order to achieve these targets is that of branding. The phenomenon of branding has been extended in the past to corporate, country, place or personal branding. Therefore, a normal extension will also be the branding of clusters. But, at the core of branding it lays the identity of the elements that will be branded.

With little to no research in the cluster identity field, the present study aims to introduce this concept in the attention of the business literature. Moreover, the study aims to design a future framework for analysis.

The theoretical part introduces the main concepts of the paper. To start with, there is a discussion around the definitions of clusters and their main characteristics, as well as an introduction to the brand. The second part of the theory aims to make some light regarding the identity principle. It is here that different approaches to corporate identity are identified, and the approach of the study is decided.

The empirical part is concentrated around RoboCluster, a robotics and automation cluster from Denmark. The research is based on a qualitative study, where interviews were used as a mean of data collection. The results of the research have been gathered in a case study.

According to the research, cluster identity is formed by the corporate philosophy and the corporate personality. In addition, this is greatly influenced by the actors' corporate identity, which in turn is influenced by the stage in the life cycle of the company, its experience on the market and the number of employees.

KEYWORDS: Cluster, brand, corporate identity, cluster identity, RoboCluster

1. INTRODUCTION

This chapter will be the starting point of the study. It is here that it is introduced the background of the study and the research problem is presented. In addition, the main purpose of the study is discussed, as well as the sub-objectives in order to achieve that purpose. Then, the limitations of the study are mentioned. For a better understanding from the reader, the main concepts of the papers are presented in subchapter 1.3. Nonetheless, the chapter will finish with a short presentation of the structure of the thesis.

1.1. Background of the study

The clustering of economic activity is a well known phenomena, usually explained by the benefits that proximity affords firms and consumers in reducing many different types of transaction costs (Leamer & Storper 2001).

Previous studies are available on many aspects of industrial or business clusters, including the preconditions for cluster formation, the forces driving cluster growth and development, the flow of knowledge and resources within and across clusters, and factors that influence cluster competitiveness and innovativeness (Porter 1990, 1998, 2000; Bergman and Feser 1999; Feser & Bergman 2000; Enright 2000). However, there are not many studies related to how clusters can differentiate themselves and create a competitive advantage.

Clusters, just like companies, go through different stages in their life cycle. In the early stages of their lifecycle they are mostly interested in developing all the necessary elements for a cluster: building a network with many actors, getting them to cooperate and trust each other in order to better share knowledge and innovation through different projects. However, at a later stage in their lifecycle, although there still is a focus on the core activities of a cluster, other activities and ideals become part of their strategy.

Although clusters are concentrated in a certain location, that does not mean that cluster would not aim to become international acknowledged. Getting international awareness for clusters means new actors, new activities, and new means of financing. Therefore, achieving an international status will be greatly desired by any cluster. International awareness can only be achieved through an intense marketing effort of communicating and promoting the cluster.

In the last few years, the marketing literature has been acknowledging a new concept: that of branding and brands. Branding can be easily understood as the process that makes you more knowable, likeable and trustable. Meanwhile, the brand is the actual result of the phenomenon of branding. In addition, brands are intangible resources that distinguish you from the others.

According to Runyan and Huddleston (2006), “brands in general are posited to be less mobile than other firm resources, and thus may provide a more sustainable competitive advantage”. Similarly to the large corporations that use branding to distinguish their products from other largely indistinguishable products, the concept of creating a “cluster brand” becomes more popular. In the same way that consumer associate companies’ products to lifetime experience, the cluster brand at its core is based according to Porter (1998) on an image of a high-productivity, knowledge-rich, decentralized, entrepreneurial and socially progressive economy within the reach of local policy-markers.

Balmer (1999) sustains that the acquisition of a corporate brand, has been identified as an objective of corporate identity management. By corporate identity it can be understood “something that symbolises the organization as a whole.” In addition, Leuthesser and Kohli (1997) define corporate identity as “the way in which an organization reveals its philosophy and strategy through communication, behaviour and symbolism”. Without a proper corporate identity in place, branding can become a difficult and inconsistent activity. On the other hand, a well-managed corporate identity can be a powerful tool that is essential when an organization wants to be successful and differentiate itself (Schultz and Hatch 1997).

As clusters need to receive an international reputation, this can be received by branding. However, branding itself is actually communicating the corporate identity to the internal and external stakeholders. With these being said, I see it important to introduce the concept of brands and how organizations, including clusters, can benefit from them; as this is the starting point of the paper. After the concept of branding will be covered, I will focus more in depth on the concept of identity, which is actually the main theme of the study.

1.2. Objectives and delimitations

With a lack of research in the fields of cluster brand and cluster identity, it will be challenging to find out how a cluster can achieve an international awareness. The starting point of the study is the identity. Therefore, the purpose of the study can be stated as follows:

To introduce the concept of cluster identity to the business literature and to suggest a framework for developing a cluster identity

To be able to achieve the above stated purpose, I will further investigate the following sub-objectives:

1. To describe the cluster concept and to introduce the concepts of brand and its extension.

As the concept of cluster is to some extent new in the business literature, it is imperious to clarify how it should be understood in this research. To achieve this, the paper will investigate the various definitions of clusters, as well as the main characteristics of clusters. As it was previously presented, clusters are interested in branding themselves, and identity is an internal part of the corporate branding. Therefore, it is important to understand how brands can be described and whether they can also be extended to different concepts, including clusters.

2. To describe the notion of identity and its transfer to different entities, including the cluster

The cluster identity is the main theme in this paper. However, with little to no research in this field, it is necessary to undergo a presentation of the concepts since its initial meanings. This will start by discussing the concept in sociological and psychological area, and then extending it to the organization and corporate level. After all of these notions will be understood, a particular attention will be given to the new emerging concept, that of cluster identity and the challenges to its existence.

3. To empirically explore the elements of cluster identity in RoboCluster.

As companies are formed by different employees, clusters are formed by different actors. The actors in the clusters are established companies, which can have their own identity. Therefore, I consider necessary to first take a look at the corporate identity of the actors in the cluster. Then, it would be interesting to analyze the cluster identity and to investigate whether there are any correlations between the corporate identity of the actors and the cluster identity.

The subject of cluster identity has not received attention in the literature. However, the identity concept has received great attention throughout disciplines various disciplines. It was first studied in the psychological and sociological areas. Then, the concept was extended to the organizational studies. The principle was further transferred to the corporate marketing theory and the corporate identity concept was born. Corporate identity has received great attention from scholars throughout history. However the multitude of papers concentrated in the area has also brought disagreement in defining the concept (see Balmer 1995; van Riel & Balmer 1997; Melewar & Jenkins 2002)

With the lack of previous studies in the cluster identity area, the present research will use the corporate identity theory, which will be extended to the cluster theory. As mentioned before, there have been some disagreements and confusion in terms of what

corporate identity can be defined. While some scholars consider that the construct of corporate identity should include elements like visual design and corporate communication, I consider the latter as means of promoting the corporate identity. In this study, corporate identity should be understood as a concept that emerges in the internal part of the organization. Therefore, the study will be limited to investigate the internal components of corporate identity and not the activities that the cluster can engage in order to promote it to its stakeholders. With this in mind, the present research will be limited to using the Balmer's approach in describing the corporate identity.

1.3. Defining the main concepts in the thesis

The present subchapter aims to define the most essential elements presented in the papers. Its purpose is that of clarifying to the reader these concepts, so it will be easier to understand the research. To achieve this, I have tried to give brief descriptions of the terms. However, advancing in the theoretical part of the study, these terms are further described and discussed.

Cluster is described as a number of interconnected companies, specialized in a certain field and concentrated in a geographical area.

A *brand* is a set of assets connected to a brand's name and symbol, which adds value to the product or service.

Corporate brand can be best defined as the functional and emotional values, which coveys expectation about what the company will deliver in terms of products, services and customer experiences.

By *corporate identity* it should be understood a strategic manifestation of corporate-level vision and mission, underpinned by the strategies which a corporation employs in its operations or production (Melewar & Wooldridge 2001).

The *philosophy* of a company should be regarded as an expression of the organization's core competencies, its market position and the values and assumptions of the organization, created by its owner or of its chief executive and management board.

Corporate personality is best described by Aaker (1997) as the set of human characteristics associated with an organization's identity.

Kiriakidou and Millward (2000) define the *corporate culture* as the corporate values that are held by staff and management and their concrete manifestation in organizational symbolism and behavior, which frame the way that the organization operates.

Corporate strategy should be understood "as the blueprint of the firm's fundamental objectives and strategies for competing in their given market" (Melewar & Karaosmanoglu 2006).

1.4. The structure of the thesis

As seen in figure 1, in this *first chapter* the reader receives an insight to what this thesis is about. This is the chapter where I will clearly state the purpose of the study and the way I intend to achieve it. The delimitations of the research are also presented in the first chapter. Furthermore, in order for the readers to better understand the concepts used in the thesis, it has been designed a section which is aimed at defining main concepts in the thesis.

The *second chapter* introduces the reader into the theoretical framework of the thesis. Two main concepts are described in this chapter: clusters and brands. The first three sub-chapters analyze the clusters, their elements and the importance of geographical proximity. The rest of the sub-chapters investigate the concept of brands and compare the two main segments of branding: product and corporate branding. In the end, the chapter focuses on the corporate brand and introduces the next chapter.

The role of the *third chapter* is to add to the theoretical framework the concept of corporate identity. It starts with a general overview on the concept of identity and slowly transfers into the analysis of corporate identity formation and its construct. It is here that the challenges of constructing a cluster identity are presented. Nonetheless, the chapter ends with a synthesis of the theoretical part and presents the framework that will guide the empirical research.

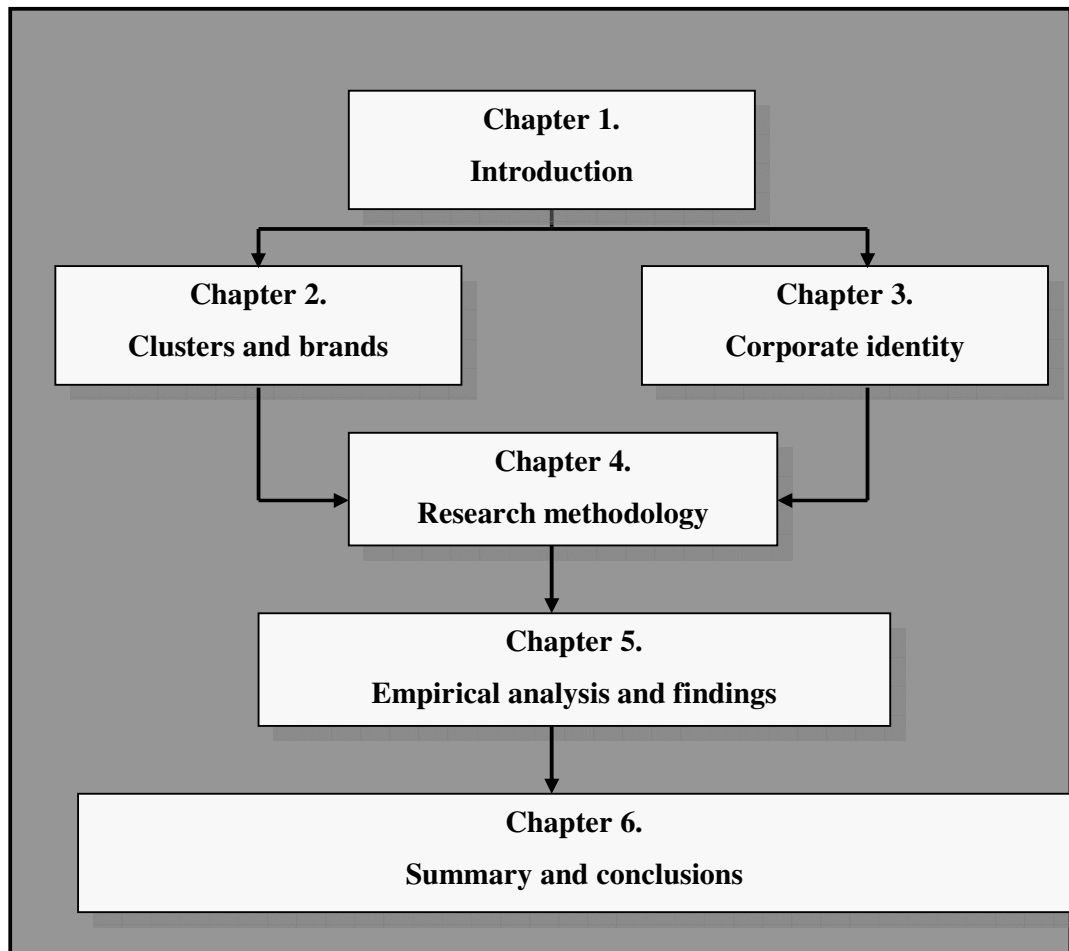


Figure 1. Structure of the thesis.

The *fourth chapter* introduces the methodology of the study. It first defines the research method that will be used in the research. Then, the collection and analyzing methods of the empirical data are included. Lastly, but not the least, the chapter ends with the analysis of the validity and reliability of the study.

The *fifth chapter* is the chapter that the data collected is presented in a form of a case study. It firstly starts with an introduction of the cluster and then it analyzes the results of the qualitative research.

In the first part of the last chapter of the study there is a short sum up of the purpose and the objectives of the research. Then, the main conclusions related to the findings are drawn and the managerial implications as well as future research are discussed.

2. CLUSTERS AND BRANDS

As the title suggests, this chapter will focus on defining two different concepts: clusters and brands. It will start by discussing the concept of clusters, their various definitions in the literature and the main elements that form them. After this will be covered, I will attempt to briefly introduce the concept behind the study and link it to the main subject of the study, that of identity.

2.1 Definition of clusters

In recent years, there have been great discussions regarding the phenomenon of globalisation and its impact on the business world. For some researchers globalisation can be translated into “end of geography”, the “death of distance” and the “delocalisation” of economic and social relationships (Martin & Sunley 2001). However, not all scholars share this view. On the contrary, for some globalization is directly linked with the phenomenon of localization.

According to Enright (2000) “[g]lobalisation can result in a geographic spread of economic activities over space, but it also can allow firms and locations with specific sources of competitive advantage to exploit their advantages over ever wider geographic areas, often, though not always, at the expense of other areas”.

In addition, globalisation has brought both global market opportunities and also increasing pressure on the business organizations. The effects of globalisation were more intensely felt by the small and medium enterprises. Their main challenges can be restricted to two main actions. They could either try to transform and become more competitive (Fassoula, 2006). Or, due to their limited size, they can enter into cooperative relations with other SMEs and related partner institutions; thus taking advantage of the synergy effect.

In order to overcome their size limitation, but also to improve their productivity, innovativeness and overall competitiveness, the most viable solution for SMEs is to form clusters.

It all started in 1890, when Marshall has identified in his paper “The Principles of Economics”, what he then named “industrial clusters” (Bergman & Feser 1999). His framework established a link between co-location by companies and economic efficiency, as companies would cluster in order to benefit from positive externalities associated with their respective activities. These local concentrations of economic specialization became an important characteristic of the industrial organization.

The idea was further developed by a multitude of researchers in the industrial organizational literature, who believed that there was a strong connection between regional space, economic actors and innovation. The studies conducted in the Italian industry districts (qtd. in Andersson, Schwaag-Serger, Sörvik & Hansson 2004) in the 1980s came to better prove the advantages that these types of structures add over the regional economies.

However, it took 100 years until this phenomenon was defined. In his book, the Competitive Advantage of Nations, Porter (1990) aimed to change the understanding of the strategic factors, which promote innovation and economic growth. By factor conditions, Porter (1990) refers to the basic inputs that can create an environment that permits competition. Factors that are generic across many industries can be a source of competitive disadvantage, but are diminishing as a source of advantage because many locations have them. Therefore, “to maximize the productivity, these factor inputs should have better efficiency, quality, and specialization to particular cluster areas” (Porter 2000: 20).

In 1990, Porter further insisted that local competition creates incentives to imitate best practice and boost pressures to innovate, while also connecting the strengths of competition with the virtues of selective cooperation. In Porter’s (1990) view, local units, like clusters, have a significant role in increasing the competitiveness of

individual firms in spite of globalization and internationalization. Moreover, he argues that “the building of a “home base” within a nation, or within a region of a nation, represents the organizational foundation for global competitive advantage” (qtd. in Lazonick 1993).

However, there is no universally valuable definition of clusters as the cluster has received various definitions over time. These definitions varied along the following dimensions: formal input-output or buyer-supplier linkages, geographic co-location, shared business related local institutions, and evidence of informal co-operative competition (Feser & Bergman 2000). According to Porter (1990) clusters tend to be localized in space, thus he provided the following definition of clusters: “[c]lusters are geographic concentrations of interconnected companies and institutions in a particular field”.

Furthermore in 1998, Porter reconsiders the definition of clusters and states: “[a] cluster is a critical mass of companies in a particular location, whether it is a country, a state, a region or even a city”. Moreover, he suggests that clusters can take varying forms depending on their depth and sophistication. However, a group of companies and suppliers of specialized inputs, components, machinery and sources, and firms in related industries are the actors that most of the clusters are made (Porter, 1998:10).

After a decade from this above definition of clusters, Porter (2008) has stated that the definition of clusters hasn’t changed. However, different clusters depend on their size, location and development stage. The definition that he gives to cluster at the 2008 conference in Sweden is the following: “[a] cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities (external economies)”.

There have been many scholars that have shown great interest in the domain and not all have shared Porter’s view. For example, Bergman and Feser (1999: 2) developed a cluster definition from an institutional concept to a functional one, without considering the value added of products. In their opinion "an industry cluster may be defined very

generally as a group of business enterprises and non-business organizations for whom membership within the group is an important element of each member firm's individual competitiveness”.

To complete the lack of approach on the value added of products, Roelandt and den Hertog (1999) believe that "clusters are networks of production of strongly interdependent firms linked to each other in a value adding production chain”. In some cases, clusters also encompass strategic alliances with universities, research institutes, knowledge intensive business services, bridging institutions and consumers.

As we have noticed from the previous definitions, clusters are made up of more than one element and various views seem to overlap. This makes it challenging to arrive at a central theme that defines what a cluster is and how it operates. In order to give a better understanding of the cluster, in the following subchapter, I aim to investigate and discuss the major characteristics of clusters.

2.2. Main elements of clusters

The primary elements essential for a cluster are: actors, trust and cooperation, knowledge sharing and innovation, entrepreneurship and networks (Frisillo 2007).

2.2.1. Actors

Although primarily driven by the efforts made by private companies and individuals, clusters are influenced by various actors, including research institutions, governments and other public institutions at national and regional levels.

Companies

In the most cases, the majority of clusters are formed by SMEs. In addition to the reasons already presented in the beginning of this chapter, clusters strengthen SMEs, in

the fact that they assist smaller companies in their development stages. Thus, SMEs can become more efficient and achieve economies of scale.

In their study, Chung and Kanins (2001) found that small firms were some of the greatest beneficiaries of the increased revenue accruing to firms operating from cluster locations. According to Tallman, Jenkins, Henry and Pinch (2004), firms inside a cluster gain superior access to knowledge, which enables them to establish competitive advantage. In addition, smaller firms are able to take advantage of the increased number of customers who are drawn to the area by the reputations of the larger firms within the region, which allows small firms to more easily present their products/services to their intended market.

Science Institutions

However, a cluster is not solely developed around a group of companies. In many cases clusters have been gathered around a Research Institute or a University. As we will further see in this subchapter, innovation is a key point in a cluster life process. Thus, having a research centre in the same location is crucial for a cluster's survival.

Government

Last, but not the least, clusters cannot function properly without the help of the Government. Both national and local Governments have considerable roles to play in the promotion of a clustering approach. Not only that they create the framework conditions, setting the rules for competition and promoting entrepreneurial spirit, but they also actively engage in, and promote, such an approach (Porter 1998).

2.2.2. Trust and cooperation

It is not only geographical concentrations of the SMEs operating in the same sector are determinants for producing "external economies". But a cluster cannot develop successfully unless there is a trust relationship created across its members.

Trust is considered to be a key prerequisite involved in the knowledge sharing process. According to Maskell and Lorenzen (2004) if there is trust, then new markets begin to form as companies can share knowledge more freely, without worrying that they will not gain anything. Moreover, raising the level of trust between businesses that are cluster members is a strategic determination in the successful development of clusters.

The other element, without which cluster cannot achieve economic advantage is cooperation. As a strategic alliance, companies inside clusters need to be open to each other and share all the risks involved.

2.2.3. Knowledge sharing and innovation

In recent years, there has been an advance in the research regarding companies resources, and according to business scholars, knowledge is the resource that can create competitive advantage. Creating knowledge is a primarily activity of the cluster. However, sharing knowledge and technology is the activity that enables clusters to develop and grow, while maintaining a competitive advantage. In addition, knowledge sharing especially when received from multiple sources, as in the case of clusters can help companies to reduce the uncertainty that is associated with innovative activities.

It is stated that knowledge is the driving force behind innovation. Preissl and Solimene (qtd. in Karaev, Koh & Szamosi 2007) defined clusters as a set of interdependent organizations that contribute to the realizations of innovations in an economic sector or industry. They are completed by Enright's (2000) view that states that "a cluster can generate, adapt or use various forms of technology". Therefore, clusters can create technologic innovations that are vital in competing with other organizations.

The ease of the clusters in being innovative is also drawn from the fact that having a higher number of actors that are closer to the market, then they also know exactly the market and its needs.

2.2.4. Entrepreneurship

The business literature, advocates the need of a certain business environment that can foster competition and economical growth. This type of environment is necessary for the cluster development and is a precondition for its formation. According to Love, Edwards and Irani (2004), the organizations that are based on learning require an environment where experimenting with new approaches is encouraged and errors are not perceived as failures. In addition, Castillo and Fana (qtd. in Karaev, Koh & Szamosi 2007) believe that clusters should be formed in a geographical area, which can be characterized by an entrepreneurial environment, which will further boost the competitiveness of the cluster.

However, I believe that it should not only resume to the preexisting state before the formation of the cluster. The entrepreneurial environment should further develop and, for example, organizations within a cluster, as they can easily perceive unsatisfied needs in their geographical area and using the needed assets, skills, inputs, and staff, which are often readily available at the cluster location, can establish a new enterprise (Porter 1998).

2.2.5. Networks

Networks have been defined in various ways. According to Cook and Emerson (1978) a network is “a set of two or more connected exchange relationships that are positively and negatively linked”. However, a more recent approach to the concept is given by two of the most erudits IMP scholars, Håkansson and Ford. According to them, a network is “a structure where a number of nodes are related to each other by specific threads” Håkansson and Ford (2002).

Although a bit confusing, the concept of networks will be cleared up with the analysis of its components. According to Håkansson & Snehota (1995), networks are sum of three elements: actors, resources and activities (see table 1). The actors are the companies that are part of the network. The actors are the one that are handling the

resources and the activities in the network in order to achieve their purpose. Resources can be understood as anything that has a known use for the actors. In R&D networks, the primarily resource of a network is knowledge. However, there are also tangible and other intangible resources. Activities are all the technical, commercial, administrative and other activities of firms which can connect them.

Table 1. ARA in relationship and networks. (Håkansson & Snehota 1995: 45).

Level	Company	Relationship	Network
Factors			
Activities	Activity structure	Activity links	Activity pattern
Actors	Organisational structure	Actor bonds	Web of actors
Resources	Resource collection	Resource ties	Resource constellation

Therefore, in this study, networks should be understood as the relationships between the members of the clusters, which participate in different activities, and use cluster resources.

The elements presented in this subchapter are linked to each other and cannot achieve the same results if taken separately. However, there is another important factor that should be considered when taking about clusters and their competitiveness: the geographical proximity, which I will discuss in the next subchapter of the thesis.

2.3. The importance and advantages of geographical proximity

As a result of globalization, previous factors have either amplified in importance or disappeared. The case of increased attention that the localization has received has four bases: rational, economic, sociological and innovative approach. These are also the bases that the notion of cluster has emerged on.

In an economy with rapid transportation, communication and accessible global markets, location is fundamental to competition. It has been widely recognized that changes in technology and competition have diminished many of the traditional roles of location. That is probably why “the first response to globalisation was to pursue these benefits by shifting activities to low-cost locations” (Porter 1998).

However, proximity in geographic, cultural, and institutional terms allows special access, special relationships, better information, powerful incentives, and other opportunities for advantages in productivity and productivity growth that are difficult to tap from a distance (Porter 1998).

Clusters are often concentrated in particular geographic areas, and sometimes in a single city or metropolitan region. However, these locations are not randomly selected. According to Wolter (qtd. in Karaev, Koh & Szamosi 2007), “clusters will concentrate in a location only if that agglomeration brings benefits to them, which are greater than the costs of locating in the area.”

Geographical proximity is considered to bring additional benefits to clusters. Some of these advantages are: higher specialization, innovation and knowledge transfer, which in turn, results in costs reduction and improved competitiveness for industrial sectors, regions and nations. Porter (1998) further notifies that SMEs which closely cooperate and compete, since a host of linkages among cluster members results in a whole greater than the sum of its parts.

To start with, as a result of geographical proximity, communication between cluster members is strengthened and the exchange of knowledge is intensified. Moreover, face-to-face interaction is cited in the literature as a motive for cluster growth. Local proximity to other firms allows them to cooperate and to adopt new technology and innovations rapidly, therefore increasing the overall efficiency of the production process.

Local proximity can also be considered as a trigger for the sharing of tacit knowledge. As a result the adoption and implementation of innovations is more rapid. Bergman and Feser (1999) sustain this point of view and believe that although codified knowledge can be easily transferred today through a various mean of communication, in reality this is exchanged rather accidentally because the senders and the receivers are not aware of its relevance before they are involved in the communication process. Therefore, the tacit knowledge can be best transferred within clusters.

Thinking in terms of cost reduction advantages, geographical proximity decreases the transaction costs, including the costs of negotiating and monitoring contracts and the costs associated with the potential for opportunistic behaviour.

The transportation costs are reduced as well due to the shorter distances; therefore reducing the risks and the insurance costs (qtd. in Karaev, Koh & Szamosi 2007). According to the same authors, due to geographical proximity the costs for obtaining information could be significantly reduced, as it is easier to access information about cluster members and their specific competencies and reliability.

I have already mentioned that clusters often include strategic alliances with universities, research institutes, suppliers of corporate services (brokers, consultants) and customers. In this case, proximity helps to establish co-operative linkages between companies by developing mutual learning and knowledge creation as knowledge can “spill over” between local firms due to the easier contact between them (qtd. in Karaev, Koh & Szamosi 2007).

To sum up, industry clusters have become one of the most popular concepts in local and regional development research and practice. The phenomenon, once started in US has spread all across the globe with highly enthusiasm.

2.4. Introduction to brands

However, in the last century the business world has shifted towards a dimension where innovation and technology is not anymore the source of competitive advantage. The increasing competition and the growing amount of competitors using common technologies and innovations are pushing organizations to find more effective ways to be recognized.

In order to protect themselves from the competition, companies have discovered another source of competitive advantage: brands. As Gossen and Gresham (2002) suggest, “branding is identifying or creating, and then exploiting, sustainable competitive advantage” (qtd. in Aderton & Nandan 2004). Branding is recognised as one of the key weapons for firms in fiercely competitive markets. Moreover, brand investment has been found to contribute to the attainment of positional advantages and hence performance (qtd. in Simms & Trott 2006).

As I have already mentioned branding and the value that it can create for a company, I believe it is necessary to present the concept in detail. Therefore, the next sub-chapter is designed to answer the questions regarding the definition of the brand and its role. In addition, the sub-chapter will also present the evolution of branding in time, from product branding to corporate branding. Nonetheless, the concept of corporate branding will be discussed more in detail towards the end of the sub-chapter.

The interest in brands is relatively new. Although some authors (Malaval 2001) claim that the origins of brands date back to the Gallo-Roman period, it was in the 1980s that it was marked as a turning point in the conception of brands. This was supported by the emergence of brands in activities which previously have resisted or were foreign to such concepts, for example industry, banking, the service sector, etc. (Kapferer 1996).

Nowadays literature includes a great number of books and articles on branding. However, the abstract nature of the brand makes it difficult to define the notion accurately, which has raised questions and disagreement among brand experts.

A brand may be defined from the consumers' perspective and/or from the brand owner's perspective. In addition, brands are sometimes defined in terms of their purpose, and sometimes described by their characteristics (Wood 2000). According to de Chernatony and Riley (1997), the brand has been defined around nine themes: a legal instrument, a differentiating device, a company, an identity system, an image in consumer's minds, a personality, a relationship, adding value and an evolving entity. These definitions of brand are emphasizing the concept either from the consumer's point of view (output) or from the organization's point of view (input).

The differences in the brand definitions are different not only across scholars, but according to de Chernatony and Riley's (1997) study, there is a gap between the way experts perceived brands and management practices towards branding.

According to AMA's dictionary of marketing terms (2008) a brand can be described as "a name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers". However, this perception of brands has been criticised for being too product-oriented, with emphasis on visual features as differentiating mechanisms. These attributes, that identify a product and differentiate it from another, are considered by Keller (2003) brand elements.

The concept of brand can be compared with that of an iceberg. A brand is not only formed by a logo, a name and advertising that sustain the product. Additionally, it is also formed by some unseen elements to the customers: values, intellect, commitment, high quality and culture.

A 1955 article written by Gardner and Levy emphasizes on the meaning of brands in the following saying: "[a] brand name is more than the label employed to differentiate among manufacturers of a product. It is a complex symbol that represents a variety of ideas and attributes. It tells the consumer many things, not only by the way it sounds (and its literal meaning if it has one) but, more importantly, via the body of associations it has built up and acquired as a public object over a period of time". These associations

have been acquired over time through continued investment from the company (Kapferer 1997: 25).

From an output point of view “[a] brand is a set of mental associations, held by the customer, which add to the perceived value of a product or service (Kapferer 2004: 10). Moreover, it can be understood as a sign whose function is to disclose the hidden qualities of the product, which are inaccessible to contact and possibly those that are accessible through experience, but where the consumer does not want to take the risk of trying the product. Kapferer (1997: 26) states that in order for a brand to exist there should be a perceived risk associated with that good. Once the risk has disappeared the brand has no longer any benefit and the brand transforms from a source of value added in just a name on a product.

The meanings and associations that brands carry about the products can be communicated in different ways. They may be the result of direct experience with the product, word of mouth communication about the product, or short-term promotions such as advertisements.

In addition, King (1984) argued that brands succeed because they offer consumers added values that are communicated through advertising (qtd. in de Chernatony & McWilliam 1988). One of the brand’s purposes is to carry out information to the stakeholders. However, it is not enough for a market to have many named and packaged goods; these goods also need to be supported by advertising in order to communicate with the consumer (Kapferer 1997: 26). Moreover, Kapferer (1997: 46-7) argues that branding means more than just giving a brand name to a product or products: “brands are a direct consequence of the strategy of market segmentation and product differentiation”.

According to Kapferer (1997: 29), brands can perform eight different functions that can benefit the customer. These eight functions can be grouped under three major groups: mechanical, which concern the essence of the brand, reducing the perceived risks and more pleasurable.

Consumers perceive brands as having added values such as reducing the perceptions of social risk or project a personality that they want to identify themselves with. Nowadays, consumers also started building an emotional bond with brands, becoming friends with them, and are even said to be seduced to look alike, eat alike and be alike.

Moreover, the theoretical and empirical literature can identify more various benefits that brands can bring to consumers. These benefits can be grouped in four different categories: functional benefits, price benefits, social benefits and emotional benefits.

According to de Chernatony (2002: 116) the success of a brand depends on the extent to which the managerially defined values, their effective implementation by staff and their appreciation by customers harmonize.

In addition, de Chernatony (2002: 116) has developed a brand triangle (figure 2) according to which, when consumers choose a brand, their primarily concern is rational, involving functional benefits that are linked to the product. The functional values are correlated to the emotional values. On top of this, to simplify the brand, a promise is communicated to the stakeholder, which can rapidly enable the latter into deciding how the product can bring value to him. Moreover, the extent to which the internal and the external components of the brand triangle are congruent gives the brand strength.

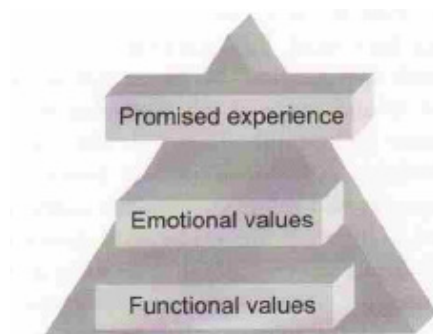


Figure 2. The brand triangle. (de Chernatony 2002: 116).

On the other hand, brands can bring a number of benefits to the company. The brand is considered to be an intangible asset to the organization and bring value. “Brand value is the value of the additional cash-flows generated by a product because it is identified with its brand” (qtd. in Calderon, Cervera & Molla 1997). In addition, Aaker (qtd. in

Calderon, Cervera & Molla 1997) considers a brand value to be "[a] set of assets and liabilities linked to the brand, its name and symbol, which incorporate or diminish the value supplied by a product or service exchanged with the company's clients".

Kapferer (1997: 31) believes that just as a brand diminishes the risk for a consumer, it diminished the risk for the company. In his view, if a brand is strong, it benefits from a high degree of loyalty and therefore its futures sales are stable. In addition, strong brands can also function as an entrance barrier for competition on a certain market, as it is considered a point of reference for the product (Kapferer 1997: 31).

Therefore, brand value is of great importance not only regarding the financial significance when quantifying intangible assets but also because the brand is a core element in company's strategy and management.

With such success that brands are receiving, it was a natural step to extend the concept from product brand, to service brand, place brand, non-profit brand, political brand, national brand, industrial brand and last but not least corporate brand. As the present study will focus on branding an organization as a whole, I will shift my attention to the concept of corporate branding and try to explain in depth its meaning and its role.

2.5. From product brand to corporate brand

As presented in the previous subchapter, the main purpose of a brand is to add value to a product or service, with the purpose of creating brand preference and loyalty.

The study of branding has traditionally been focused on the explanation of product brands, the focus of which is on the unique features associated with a particular item of a firm's product portfolio.

However, because of globalisation, as markets are becoming more complex and products and services are quickly imitated and homogenized, maintaining credible product differentiation has become more difficult requiring the positioning of the whole

corporation rather than simply its products. As noted by Argenti and Druckenmiller (2004) in their study involving 20 senior communication officers of “Best Global Brands”, the change in product marketing has implied an increase of the corporate brand in comparison to the product brand. Corporate brands like Coca-Cola, Microsoft, IBM, GE and Nokia, have proved to be the top 5 highest valuable global brands in 2007.

However, product branding remains closely linked, as according to the world’s most valuable brands survey (qtd. in van den Bosch, de Jong & Elving), 19 out of the 20 companies listed, share the same product and corporate name. It is true that product brands continue to be successful in domains of relatively standardized mass consumption.

Ward and Lee (2000) found that there was a shift by firms away from reliance on product brands to reliance on corporate and service brands (qtd. in Xie & Boggs 2006). Thus, the fast innovation, increased service levels and diminishing brand loyalty characterizing today’s marketplaces, have led to corporate branding becoming a strategic marketing tool (Morsing and Kristensen, 2001).

Corporate branding, like corporate reputation, has come into the business spotlight in recent years, in fact, 2001 marking the debut of Business Week and Interbrand's ranking of the "Best Global Brands", which used a valuation methodology to assign dollar values to this important "intangible asset" of some of the largest global companies (Argenti & Druckenmiller 2004).

Some consider that corporate branding is built on the tradition of product branding, in the need of creating differentiation and preference. However, corporate branding is very different from product branding (see table 2).

Firstly, corporate branding is conducted at the company’s level, as opposed to the product or service level (Hatch and Schultz 2001). This means that corporate branding exposes the organization and its stakeholders to a larger extent. In addition, corporate

branding tends to be more general, identifying broad themes that are easily agreed upon, whereas product branding is typically based on specific product qualities and benefits.

Secondly, product branding focuses more on the consumer. Product branding is about getting brand recognition from the customer: Does the customer recognize the product? Does the product make sense to the customer? Schultz & de Chernatony (2002) believe that “corporate branding provides a basis for a corporation to develop and express its distinctiveness through its consistent relationship with its stakeholders”.

Table 2. How corporate branding differs from product branding. (Hatch & Schultz 2001).

	Product brands	Corporate brands
Focus attention on	The product	The company
Managed by	Middle manager	CEO
Attract attention and gain support of	Customers	Multiple stakeholders
Delivered by	Marketing	Whole company
Communications mix	Marketing communications	Total corporate communications
Time horizon	Short (life of product)	Long (life of company)
Importance to company	Functional	Strategic

According to the marketing thinking, the stakeholders of the company resume only to customers and shareholders. However, once the organizational theorists have developed the branding literature, organizational members have been also introduced in the stakeholders' category (Morsing & Kristensen 2001). Therefore, a company's stakeholders are made up by employees, customers, investors, suppliers, partners, regulators and local communities. In addition, Schultz and de Chernatony (2002) suggested that unlike companies that pursue product brands, organizations that establish corporate brands are more dependent on the employees that deliver the brand promise.

Thirdly, Balmer and Gray (2003) believe that corporate brands are fundamentally different from product brands in terms of disciplinary scope and management. In addition, Balmer (2001) states that the difference between product and corporate brand lays in the strategic focus and its implementation; which combines corporate strategy, corporate communications and corporate culture. Moreover, according to Ind (1997), corporate branding has three distinct features that are marketed different in concept and operation by the “standard” product branding.

Although corporate branding is seen as being intangible, it becomes tangible with the message that it communicates and with the relationships that it develops with the stakeholders. Unlike product brands, which usually are intended towards specific stakeholders, the customers, corporate brands appeal to all the internal and external stakeholders of an organization.

In addition, it is these messages and relationships that a corporation creates that make the corporate brand highly complex. For a corporate brand, corporate social responsibility should also be taken into consideration. In particular, the people that deliver brand messages and the organization’s ethical and social responsibility. Having communication and the right people to send the message for the corporate brand has been also argue by Harris and de Chernatony (2001).

Hatch and Schultz (2001) believe that corporate branding is an alignment of three different elements: vision, culture and image that are coordinated by the top management so that there are no discrepancies between them and the message that the corporate brand conveys to its stakeholders. In addition Harris and de Chernatony (2001) believe that corporate branding requires a different management approach, as it needs cohesion in communication, consistency of approach and above all, the right people to deliver the right 'message'. Moreover, it should be noted that managerial responsibility for product brands usually rest in the middle-management marketing function, while corporate brands usually involve strategic considerations at top executive level.

According to Hatch and Schultz (2003), product brands are relatively short-term, compared to corporate brands, which live both in the past and the future. According to Olins (qtd in Hatch & Schultz 2003), corporate brands are associated with heritage and articulate strategic visions of what is there to come.

New ideologies in corporate branding suggest that corporate branding should not be viewed as merely a marketing-communication activity. While product brand relies on advertising, distribution, and communicated image to communicate a message to the customer, corporations should include corporate branding in the strategic framework. Thus, it will give the company a clear sense of direction and prove to be a competitive advantage. That is why corporate branding is more complex than product branding, as it requires simultaneous and effective interaction of strategic vision, organizational culture, and images.

So far, I have presented a general insight in what the branding phenomenon means, and presented a comparison between two main applications of branding: product versus corporate. However, as the subject of the thesis is strongly related to corporate branding, the concept requires a better understanding. With this in mind, the next sub-chapter will investigate the definition and construct of corporate branding.

2.6. Corporate brand - an analysis

The reason for adopting a corporate brand has been described by de Chernatony (2006: 32) as follows: “through building respect and trust with one of the organization’s offerings, consumers are more likely to accept the corporation’s promises about other offerings”. In addition, corporate branding emphasizes value through employees' involvement in relationship building and internally signals messages about desired culture and externally it reduces the information overload problems from line branding, decreasing customers' information processing costs.

Over the years corporate branding has been viewed in many different ways: as a metaphor, a conceptual framework, a management process, a strategic tool-kit, a communication facilitator or an organizational business model (Schultz & de Chernatony 2002).

What is important to know is that a corporate brand is not limited to a nice logo or to a powerful advertising. But, a corporate brand's scope is to give an organization the sense of what it stands for. In addition, Keller (2003) states that corporate branding means that companies can express themselves in means different from their products or services.

When dealing with corporate branding the following questions regarding the organization should be answered: what does the organization stand for, what are its ethical principles, how does it treat its employees, what are its attitudes towards customers, suppliers, the environment, etc (Morsing & Kristensen 2001).

Ind (1997) suggested that a corporate brand is the sum of values that represent the organization. Moreover, a brand is seen to encapsulate the additional values that are inherent in or associated with the corporation and its products and services.

A corporate brand conveys expectations about what it should be delivered in terms of products, services and customer experiences. Similar to product brands, corporate brands are seen as a guarantee of quality, as an insurance against risk of poor performance or financial risk.

Taking into account the differences between the product and corporate brand presented in the last chapter and the ideas regarding the definition of corporate branding presented in this part of the study, the corporate brand definition can be rounded to the following: the process of communicating the values of the organization to its internal and external stakeholders, through marketing and corporate instruments. It is very important to have congruity between the values, their communication and the experiences that stakeholders actually undergo.

According to Balmer (2001), corporate brands have a utility in several regards: they communicate the brand's values (often seen as a promise), they afford a means of differentiation from their competitors, and they enhance the esteem and loyalty in which the organization is held by its stakeholder groups. Others may see a corporate brand as a contract between the company and its key stakeholders, which demonstrate, unceasingly and over time, that it has delivered the promise (Balmer & Gray 2003).

A successful corporate brand will enable the users and potential users to easily identify the benefits that they will receive by choosing that brand. Moreover, successful brands are internationally well known. Olins stated that corporate brands are often much well known than nations (qtd. in Melewar & Walker 2002). In addition, Aaker (1996) considers corporate brands as assets that are worth million of dollars to the organization. Therefore, having a well-developed corporate brand is crucial for some companies (Balmer 2001).

However, when deciding to build a corporate brand, there is a concept that needs to be taken into consideration: corporate identity. The two concepts, although used interchangeably (Balmer 1998), are describing two different aspects from the process of branding in a company. As Rode (2004) has stated, corporate identity can be seen as the internal part of the corporate brand, without which the corporate brand cannot be consistent.

On the other hand, Aaker and Joachimsthaler (2000: 45), talk about brand essence as part of identity: "the brand essence can be viewed as the glue that holds the core identity elements together".

As key element for the whole business concept, the idea of corporate identity needs a more in depth discussion. Thus, the following chapter will aim to define the concept and its construct. In addition, another key point of the next chapter is to analyze the challenges that appear when trying to build an identity for a cluster. However, let's first go through the main ideas of this chapter.

To sum up, this chapter has introduced two concepts to its readers: clusters and brands. Clusters should be perceived as geographical concentrated companies, specialized in a

certain field, which form with each other relationships of cooperation, knowledge sharing, based on trust. In addition, these clusters are characterized by entrepreneurship and innovation.

A brand is a more complex concept, which has received great attention in the business literature. Firstly started as characteristics to products, the concept was quickly shared through various entities like services, organizations, countries, places and people. Brands are intangible resources for these entities, and actually act as mirrors for what the entity stands for. The main benefits from creating a brand stand in the fact that brands offer unique opportunities to achieve sustainable competitive advantage.

3. CORPORATE IDENTITY

The previous chapter has ended with a short dispute in arguments, regarding the relationship between the corporate brand and corporate identity. This chapter is meant to clear all these uncertainties, starting with the definition of corporate identity and going deeper into analyzing its elements.

3.1 Introduction to identity

The term identity draws its roots from the psychological and sociological studies, where it is used to express the sense that a person has about his or herself. Moreover, identity is the features that makes one unique or at least to distinguish between one individual and another. The corporate identity concept refers to a series of attributes of the entity and address the questions “who am I?”. Thus, we can say that identity is linked with personality and character.

As Mead suggested, identity is also linked to different roles that the entity has in the society (qtd. in Ashman & Winstanley 2007). Playing these different roles automatically translates in the fact that an entity has multiple identities. Inevitably these identities appear, disappear, reappear and alter over time depending upon individual situations and circumstances. Therefore, although the starting point for the construction of an identity is the individual consciousness, the environment that surrounds the entity, be it economical, political, social and cultural is an important factor that shapes the identity.

Organizational identity is constructed on the same basis as the individual identity. That is why, in the organizational identity theory, many concepts come from psychological and sociological studies. Precursors in the study of organizational identity, Albert and Whetten (1985) believe that organizational identity is made up by a set of beliefs that are the most important, enduring (like the ability to be flexible in the organization) and distinctive (how the organization differ from others in ways of for example

management) about the company. They add that the concept of identity appears in an organization once people in the organization start asking: “Who are we?”.

Organizational identity refers to what members perceive, feel and think about their organizations, and it is view as a collective, commonly shared understanding of the organization’s distinctive values and characteristics. In addition, the identity of an organization is a critical perception of organizational members that guides and influences their interpretations of the strategic issues facing the organization. Furthermore, the organizational identity motivates individuals to support strategic goals and serves as a gauge against which organizational members evaluate and justify acting on issues facing the organization (qtd. in Dhalla 2007).

However, similar to the individual identity, individuals in the organizations have multiple conceptualizations about “who we are”, based on personal experiences or on positions held in the organizational hierarchy. Moreover, Sillince (2006) was arguing that an organization could have multiple identities as the strength to specific resources that are crucial to resources based view and competitive advantage.

The concept of corporate identity, which is actually the main focus of the chapter, as it is the key piece in constructing a corporate brand, although is keeping the same main ideas as the organizational identity, is different than the latter. The discussion of identity within the organizational literature has developed around the concept of organizational identity, while it is the marketing literature that focuses on corporate identity (Hatch & Schultz 1997).

Well known scholars in the field of corporate identity, Balmer and Olins agree that corporate identity differs from organizational identity in the degree to which it is conceptualized as a function of leadership and by its focus on the visual (Hatch & Schultz 1997). The organizational literature has stressed more on the relationship of the employees with the organization, while the marketing literature has focused on the communication of the key message from the top management to the external stakeholders.

The next sub-chapter will apply the marketing approach toward identity and examine in depth the definition and characteristics of corporate identity.

3.2. The concept of corporate identity

There has been an increased interest in the corporate identity concept in the recent years. However, there is still no clear definition of the corporate identity and there are misuse of the term to express the concept of brand, corporate brand and employee brand. (Melewar, Karaosmanoglu & Paterson 2005).

According to Melewar and Jenkins (2002) a potential cause for this is that corporate identity has been associated with a wide range of functions in an organization, starting with business strategy, corporate culture and visual design, which are both interdependent and unique to every organization. As a result, the concept of corporate identity has different connotations to different stakeholders. A potential second cause is that the management of the corporate identity has a multi-disciplinary approach. This characteristic can be clearly seen from the statement that International Corporate Identity Group, an organization leaded by key scholars in this field has published (figure 3).

"The Strathclyde Statement"

Every organization has an identity. It articulates the corporate ethos, aims and values and presents a sense of individuality that can help to differentiate the organisation within its competitive environment. When well managed, corporate identity can be a powerful means of integrating the many disciplines and activities essential to an organisation's success. It can also provide the visual cohesion with each other and result in an image consistent with the organisation's defining ethos and character.

By effectively managing its corporate identity an organisation can build understanding and commitment among its diverse stakeholders. This can be manifested in an ability to attract and retain customers and employees, achieve strategic alliances, gain the support of financial markets and generate a sense of direction and purpose. Corporate identity is a strategic issue.

Corporate identity differs from traditional brand marketing since it is concerned with all of an organisation's stakeholders and the multi-faceted way in which an organisation communicates.

Figure 3. The Strathclyde Statement. (Balmer 2001).

Another expressed difference regarding to corporate identity is the one between the opinions of practitioners and scholars. Seven distinct schools of thought have been identified and they broadly fall into two categories: practitioners and scholars (Balmer 2001). Although the two opinions are very different in terms of thinking between the two groups, they do share a common view upon the corporate identity: that corporate identity is closely related to how a firm presents itself to the public.

As it can be seen from table 3, the practitioners' literature on corporate identity defines the concept from the visual arrangements of elements of the company, which focus on the corporate name and logo. In addition, the practitioners' approach is process-oriented and is concerned with more tangible elements of identity. This school of thought emphasizes the importance of graphic design and argues that visual changes are massive catalysts for changes of every kind. But, its concentration on visual elements has made it overlook some important areas.

On the other hand, the scholars take the definition of corporate identity to a higher level of abstraction, focusing on the intangible from a firm's behavior to its reputation. The attention is focused on the question of strategy, culture and communication, namely the non-design aspect of corporate identity. They are more structured-oriented and address a number of mix components.

Table 3. Definitions of corporate identity throughout the years. (Alessandri 2001).

Author(s)	Year	Definition of corporate identity
Abratt	1989	A set of visual cues – physical and behavioral – that makes a firm recognizable and distinguishes it from others. These cues are used to represent or symbolize the company
Ackerman	1988	A firm's unique capabilities
Balmer	1993	A fusion of strategy, behavior (culture) and communications. It is not the preserve of any one management discipline, but instead draws from several. It comes into being when there is a common ownership of an organization's philosophy
Balmer and Soenen	1997	It encompasses 3 core dimensions: the mind, the soul and the voice. The mind is the product of conscious decisions. The soul results from subjective elements such as the firm's distinct corporate values and the sub-cultures present in the firm. The voice represents all of the ways the firm communicates
Carls	1989	Corporate identity is "active" and visual consistency is more of an "attitude" than a "rigid set of rules". The corporate identity program is a series of compatible but not uniform images
Gioia et al.	2000	The consistent and targeted representations of the firm with an emphasis on corporate symbols and logos. It is strategic and applied both internally and externally
Gray and Balmer	1998	<i>The reality – the distinct characteristics – of the firm</i>
Gregory and Wiechmann	1999	The planned visual elements that distinguish one firm from all others
Hawn	1998	Identity is what the firm is. Image is how the firm is perceived. A corporate identity program is the visual melding of identity and image
Lambert	1989	All the distinctive manifestations of a firm
Leitch	1999	Both corporate identity and "logo-centrism" see identity as something that can be constructed – therefore controlled – by the firm
Leuthesser and Kohli	1997	The ways an organization reveals its philosophy and strategy through communication, behavior and symbolism
Margulies	1977	All the ways a company chooses to identify itself to all its stakeholders – the community, customers, employees, the press, present and potential stockholders, security analysts and investment bankers
Markwick and Fill	1997	The firm's presentation of itself to stakeholders and the ways it distinguishes itself from all other firms through a variety of cues. It represents how the organization would like to be perceived and can include corporate identity programs, advertising, dress codes and standards of customer contact. Some of the cues will be part of the visual identity. Some will focus on behavior
Olins	1990	"Consists of the explicit management of some or all of the ways in which the company's activities are perceived. It can project three things: who you are, what you do, how you do it"
Portugal and Halloran	1986	The comprehensive and orchestrated presentation of what a firm is, where it is going and how it is different. Corporate identity is the communicated essence of the firm
Schmitt et al.	1995	The degree to which the firm has achieved a distinct and coherent image in its aesthetic output
Topalian	1984	Articulates what the firm is, what it stands for and what it does. Corporate identities are projected and are largely under the control of the host organizations
van Rekom	1997	"The set of meanings by which an object allows itself to be known and through which it allows people to describe, remember and relate to it"
van Riel and Balmer	1997	Indicates the way a company presents itself through behavior, as well as through symbolism, to internal and external audiences. It is rooted in the behaviour of individual firm members, expressing the firm's "sameness over time", "distinctiveness", and "centrality"

To conclude, there are four important features that characterize the corporate identity. Firstly, corporate identity is concerned with the reality of the corporation, most specifically the strategy, the philosophy, history, business scope, the products or services offered and its internal and external communications. Secondly, the concept is a multi-faceted one, which can be easily seen from the table below. Thirdly, the corporate identity of a corporation is based on its personality. It can be interpreted as an organization's ethos, aims and values that create a sense of individuality, which differentiate a brand. Fourthly, as defined by Melewar and Karaosmanoglu (2006), corporate identity is a presentation of the company that includes what makes an organization unique and it incorporates the organization's communication, design, culture, behavior, structure, industry identity and strategy. It is thus intrinsically related to both the corporate personality and image.

The above sum-up of the main features of corporate identity is an introductory part of my next sub-chapter, which will focus on describing the construct of the corporate identity.

3.3. The corporate identity formation

As presented before, there is no clear conception regarding what corporate identity really is. The same confusions appear in concern to the elements that form the corporate identity.

In Markwick and Fill's (1997) view, there are three components in the management of corporate identity: corporate image, corporate reputation and corporate personality. The objective of corporate identity management is to form a favorable corporate image among an organization's key stakeholders i.e. its employees, suppliers, customers and shareholders, which over time results in the acquisition of a favorable corporate reputation (Balmer and Wilson, 1998).

However, it is important to differentiate between these three concepts and not to misunderstand these terms as elements that form the corporate identity of a company. But, they should be considered as consequences of the communicated corporate identity. Corporate image is actually the public perception of the organization, which can be easily described when answering at the following question: “What do others think we are?”. Corporate reputation is a reflection of the historical, accumulated impacts of previously observed identity cues and possible transactional experiences and it can answer at “What do we know about what others think we are?”.

In another view, corporate identity is constructed from cohesively interconnected physical, operational and human elements of an organization. Melewar et al. (2005) consider that corporate identity is a sum of the following elements: corporate design, corporate culture, corporate communications, corporate behaviour, corporate structure, industry identity and corporate strategy, as seen in figure 4.

This framework was drawn by the authors based on interviews with 32 individual from 20 different companies. Their result has also shown that corporate identity is not fully understood as two main opinions have derived from their research. On one hand, corporate identity is seen as a marketing tool, while on the other hand it is seen as an inclusive concept that deals with every aspect of the company starting with strategy and ending with culture.

The above-mentioned framework is based on the study that Melewar and Jenkins have established in 2002. At that time, there were only four elements that constitute the mix of corporate identity, namely: communication and visual identity, behaviour, corporate culture and market conditions.

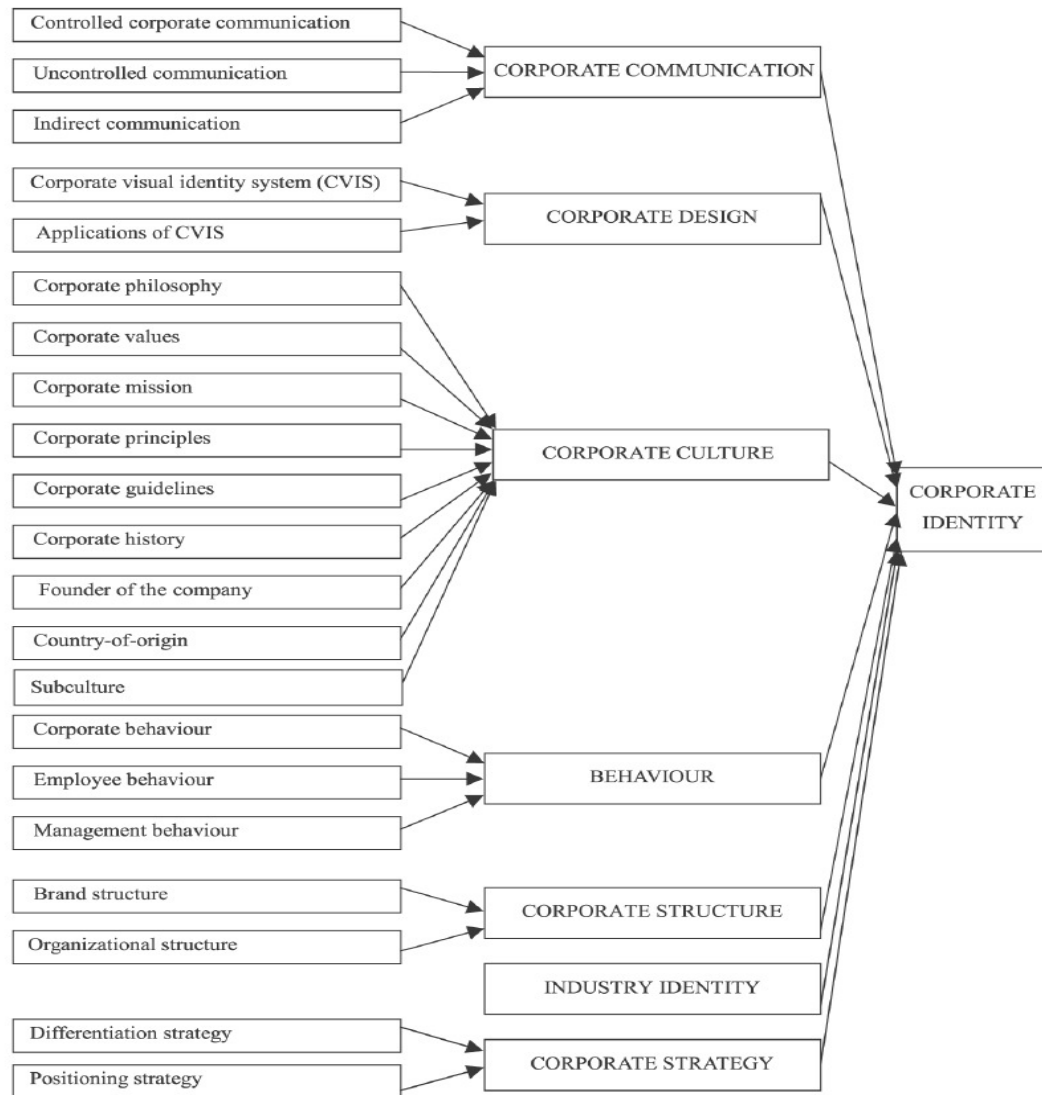


Figure 4. Corporate identity components. (Melewar and Karaosmanoglu 2005).

Rode and Vallaster (2005) has studied the corporate branding for start-ups. In their view corporate identity is the internal part of corporate branding, where corporate identity is the sum of corporate culture, corporate design, corporate behaviour and corporate communication. As seen from figure 5, they consider corporate culture as being the central point in the corporate identity of a company, while the other three components are supporting elements of the core concept.

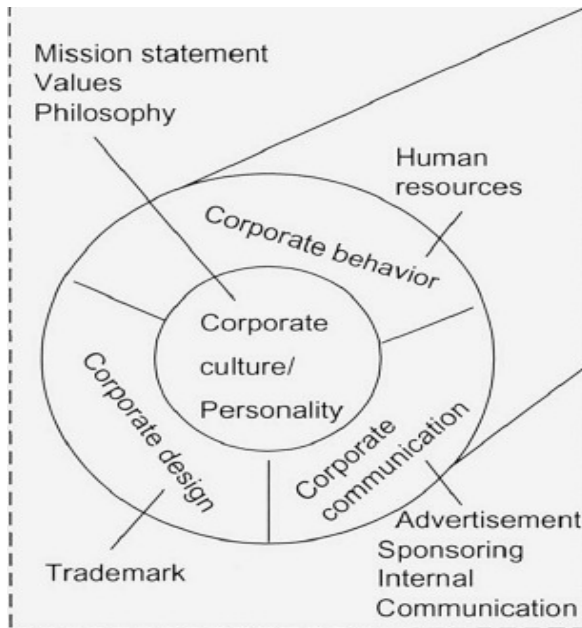


Figure 5. Components of corporate identity. (Rode and Vallaster 2005).

In their work, Leuthesser and Kohli (1997), consider corporate identity as referring to “the way in which an organization reveals its philosophy and strategy through communication, behaviour and symbolism.” This is supported by Birkigt and Staedler (qtd. in van Riel 1995: 30), who believe that corporate identity is the planned and operational self-presentation of a company, both internal and external, based on an agreed company philosophy. Moreover, they believe that the self-presentation can be expressed in three ways: behaviour, communication and symbolism, while the central part remains the philosophy.

Symbolism is described as the aspect, which communicates a firm's corporate personality through visual means to stakeholders. It should be noted that symbolism doesn't mean assigning a symbol to an organization. But a tool which increases the organization's visibility. This will help the company to achieve identification, distinction and differentiation among stakeholders.

Behaviour is a key element to the corporate identity mix, which relates to activities, actions, mannerisms of the internal members of an organization. Target groups will judge the company by its actions.

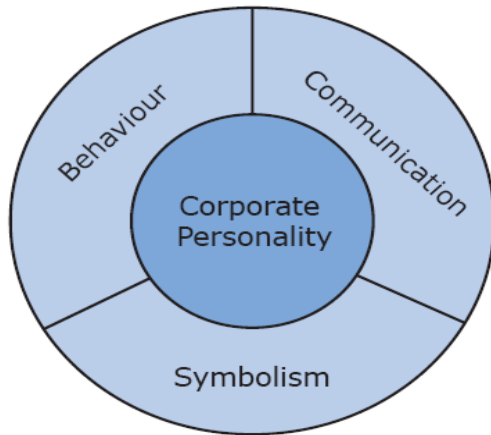


Figure 6. The essence of corporate identity.

Communication is the activity that primarily deals with transforming the corporate identity into corporate image and reputation. It primarily sends verbal and visual messages to the target group. Balmer and Wilson (1998) argue that the corporate communication should reflect the corporate personality, which is the essence of an organization's corporate identity (figure 6). Their view is supported by van Riel (1995), who considers that all the three elements, namely symbolism, behavior and communication, have the source in the corporate personality. Therefore, understanding corporate personality should be interpreted as a prerequisite for understanding the corporate identity. Furthermore, corporate personality is seen as the total values and beliefs that an organization shares. This has been suggested several times by Olins (1994), who explained that the tangible manifestation of a corporate personality is its corporate identity.

To further support the understanding of corporate identity, Balmer has developed Balmer's Afinity Audit, which explains the driving forces that sustain the corporate identity. His research concludes that corporate identity formation is grounded in a basic social psychological process based on affinity.

As seen in figure 7, Balmer's Afinity Audit, is a four-step process that gains access to the values and belief system of a corporation. Firstly, it needs to be defined the corporate mission and strategy of the company. Secondly, it should show the values and the belief system within the corporation. Thirdly, it should evaluate the values and belief system

against the mission and strategy of the company. And lastly, there is the urge to nurture those values and beliefs which support the corporate mission and strategy.

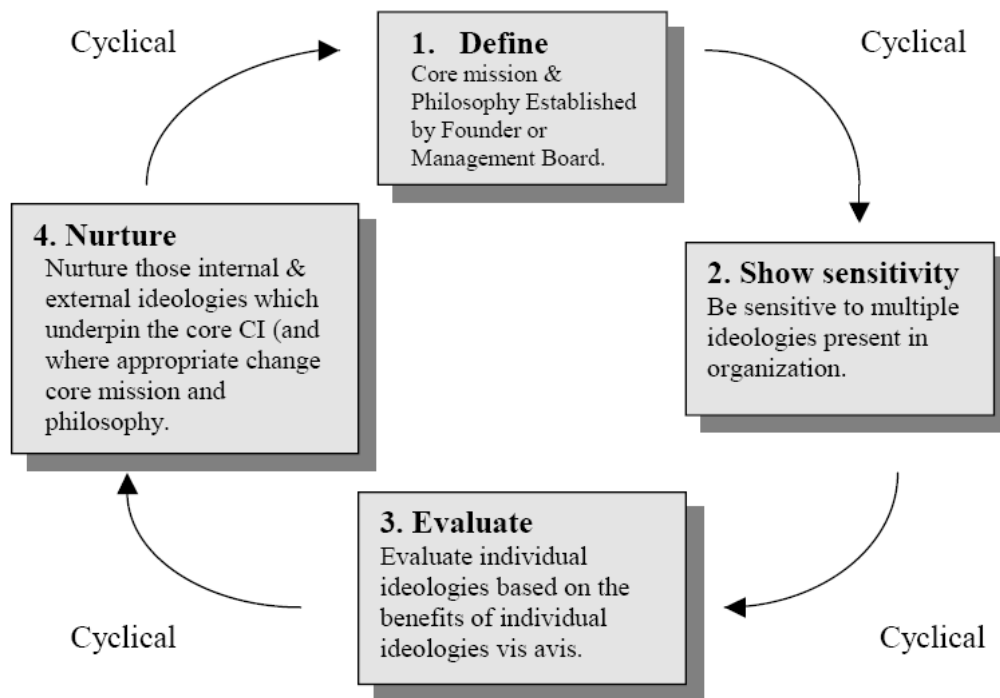


Figure 7. Balmer's Afinity Audit. (Van Riel & Balmer 1997).

To sum up, in order for a company to be successful and to use its corporate identity to gain competitive advantage, it first needs to have a clear corporate mission and philosophy and to understand its corporate personality. These three concepts will be further explained in the next sub-chapter of the paper.

3.4. Corporate identity elements

As I have presented in the above sub-chapter, there is no clear view on the formation of corporate identity. However, I believe that the core elements of the corporate identity lie in the philosophy and personality of the corporation. I consider the rest of the activities

being support activities, which companies use in order for their corporate identity to reach the intended stakeholders. In order to better understand the concepts that form the corporate identity, I will analyze them one by one.

3.4.1. Corporate philosophy

Corporate philosophy is associated with the fundamental values and assumptions of a company created by senior management. The company's philosophy directs decisions, policies, and actions and entails core motivating assumptions, principles, values, and belief. It is the organization's business philosophy brings the company's uniqueness to the corporate identity construct.

According to Collins and Porras (qtd. in Simoes, Dibb & Fisk 2005), philosophy can be expressed in the mission statement to convey a sense of commonality and purpose. Furthermore, corporate mission is seen as the most important component of the corporate philosophy. Many practitioners consider the mission statement as the starting point for a corporate identity program. A mission statement has a general understanding as being a broad declaration of the organization's purpose, goals and functions. According to Olins (1994) mission statements help managers to maintain the strategic decision and to remind the employees on what the organization is about.

Both concepts, as Balmer (1995) sustains, represent the definition of a company's core competencies, its position on the market and the expressed values of the corporate owner or of its chief executive and management board. It is also Balmer that stressed on the influence of a clear corporate mission and philosophy have on the success of brand management.

3.4.2. Corporate personality

Corporate personality refers to the ideologies inside an organization. These ideologies are revealed through the value systems and through the behaviour of the personnel. I believe that corporate personality has its main component the corporate culture of the

organization. In addition, the business practices in general and the corporate strategy in particular, are other important characteristics of the personality of a corporation.

Corporate culture

Corporate culture has been formally defined as being “the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with the problems of external adaptation and internal integration, and that have worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problem.” (Schein 1984.)

In addition to this definition, I also embrace the point of view that De Long and Fahey (2000) are suggesting, that an organizational culture consists of practices, norms and values. Often, the organizational culture has been regarded as an iceberg, where on its top are the practices, further down are the norms and deeply embedded are the values of the organization. Continuing on the same thinking path, the literature mentions that the organizational culture can be changed, but on the visible surface i.e. practices and norms.

In this view, practices are the most visible elements that compose the organizational culture. They refer to repetitive employees’ behaviours for example how people interact with each other or with their clients and how they do certain tasks. In addition, the organizational norms can be both visible and invisible in the same time, as they derive from the values. They are mostly derived from the employees’ perceptions, it relates to the cognitive level of the human mind.

The invisible part of the corporate culture consists of the values, this being the part that it is very difficult to change. However, as De Long and Fahey (2000) suggest, values can be reshaped. They see the organizational culture as a continuum. Values are at the basis of the corporate culture, and they have a great impact on the norms. In turn, the norms help to design the organizational practices. Starting from these assumptions,

managers, in their need to change a company's values, they work on changing the practices and norms in a company.

Corporate strategy

Porter (1998) referred to corporate strategy as “what makes the corporate whole add up to more than its business parts”. According to Melewar et al (2005), corporate strategy is the blueprint of the firms' fundamental objectives and strategies for competing in their given markets. It is built on core competencies of the corporation, which makes the organization compete successfully. Corporate strategy sets the direction for the management and the employees of the company. It is practically the vision of the company translated into action. A strategy is based on a specific goal. Thus, it should concentrate efforts and investments to achieve the set goal. Strategies can be set for a different periods of time. However, they should provide consistency for the company. Last, but not the least, a corporate strategy should ensure flexibility, which means that a strategy should ensure the predication of change and adaptation according to different situation of the company.

In conclusion, corporate identity is a sum of two important elements: corporate philosophy and corporate personality. At their turn, these concepts can be divided into sub-elements, which I have analyzed in this sub-chapter. It will be this corporate identity framework that I will further use in conducting the research. However, due to the nature of the subject of the study, there might be some challenges that need to be approached. Therefore, the next sub-chapter will try to address these challenges.

3.5. Challenges to constructing a cluster identity

So far in the thesis, I have been discussing the issue of corporate identity. However, with the appearance of the “new economy” there is a shift between the organization to the cluster.

The concept of cluster identity might not be as simple as that of corporate identity. Similar to a corporation, as it is formed by many individuals, a cluster can be considered the sum of a number of corporations. Another similarity between the two concepts is the existence of a certain purpose. The existence of a shared sense of purpose is actually the core prerequisite for creating an identity for a collective, be it a firm or a cluster.

It is important when two or more companies form an alliance to create a new corporate identity, and this new corporate identity must be nurtured in order to allow its various stakeholders to identify with the new strategic group. Similar to the situation when a new employee joins an organization, companies can face an unfamiliar corporate culture. Therefore it is important to identify the core values of the companies, and to recognize both potential synergies and area in which the corporate cultures may clash.

In a cluster it is important to interpret the organisations perception of itself and others and how they identify other organisations as we, them and the others, as one part of identifying process and defining the boundaries of your organisation. Organizational identification arises when there is an acceptable level of 'Me-We' synchronization, a shared sense of purpose and destiny. In the same way, when organizations join together within a defined cluster boundary characterized by a shared sense of purpose a corresponding definition of a 'We-Us' synchronization applies on the organization cluster level.

A cluster is considered to be the sum of three distinct elements actors, relationships and activities. At the organization level, the spirit of competition is much more emphasized than at the individual level. It is important to reiterate the fact that a cluster is a group of companies that want to achieve the same goal and enter in direct competition. However, the cluster is set between some boundaries. The actors in the cluster should realize that they are able reach their own goals if, and only if, the others also reach theirs.

However, when talking about identification with the cluster, then the issue is escalated to a higher level. Organizations identify with the cluster when they perceive an overlap

between cluster attributes and their own attributes. The corporations not only need to have common goals but also common values.

In order to research the existence of a corporate identity and its contents, a research framework needs to be constructed. Therefore, the next sub-chapter of the thesis will be a synthesis of the reviewed literature and will conclude with a framework that will be used in the present research.

3.6. Synthesis

Due to rapid changes in the business world, creating a competitive advantage is a major concern of corporations. The access to resources and the quality of them seem to be the core element of competitiveness for a company. In this way, two of the main adopted strategic operations will be discussed in my thesis. One of them is the strategic alliances that form between companies. The purpose of forming alliances can be based on various reasons. By far the most important in my opinion is the sharing of resources. According to the knowledge-based theory, knowledge is the most strategically significant resource of a firm.

However, there is another core resource of the company that has received attention in the literature and is considered as being a source for sustainable competitive advantage: corporate identity. As Balmer (1998) believes, corporate identity is an important corporate asset, representing the firm's ethics, goals and values, that differentiate the firm from its competitors.

The subject of the thesis incorporates both concepts and aims to investigate the existence and the components of the cluster identity. In order to conduct the research, I have initiated a previous literature review on both subjects.

In the first theoretical chapter, I have addressed the concept of cluster and its elements, as well as general views about the brand. It was in the second chapter of the thesis that I

started to narrow down the subject and approach more in depth the concept of corporate identity, its formation and its construct.

As an outcome of the theoretical review, the following theoretical framework has been built (see figure 8).

As it can be seen from figure 8, the center of the clusters are the actors, the SMEs, research institutes and governments that are a part of the cluster. They are bound together by the main elements of the clusters, which were previously discussed: knowledge sharing and innovation, trust and cooperation, entrepreneurship and networks.

It is important to know that these actors share a common cluster philosophy based on their fundamental values of the cluster. An element of the philosophy is the cluster mission, which is usually communicated to the stakeholders through the mission statement. The next element that adds to the mission, in order to create the philosophy is the cluster vision, which is also represented in the figure.

Going up to the next level, it is the corporate personality of the cluster. In the current study, personality is understood as a sum of two important factors: the culture and the strategy of the cluster. According to Balmer (1995) the main concern for management is that these cultures and the resulting behavior of organizational members should reflect the organization's personality.

The last square in the framework, which can be interpreted as a sum of the other presented factors, stands the cluster identity. As mentioned before, corporate identity has been identified in the literature as a potential resource for creating competitive advantage. As Rowden (2000) suggests, the greatest benefit for having a clear identity is that the cluster is seen to be different, because it makes it visible and separates it from the others.

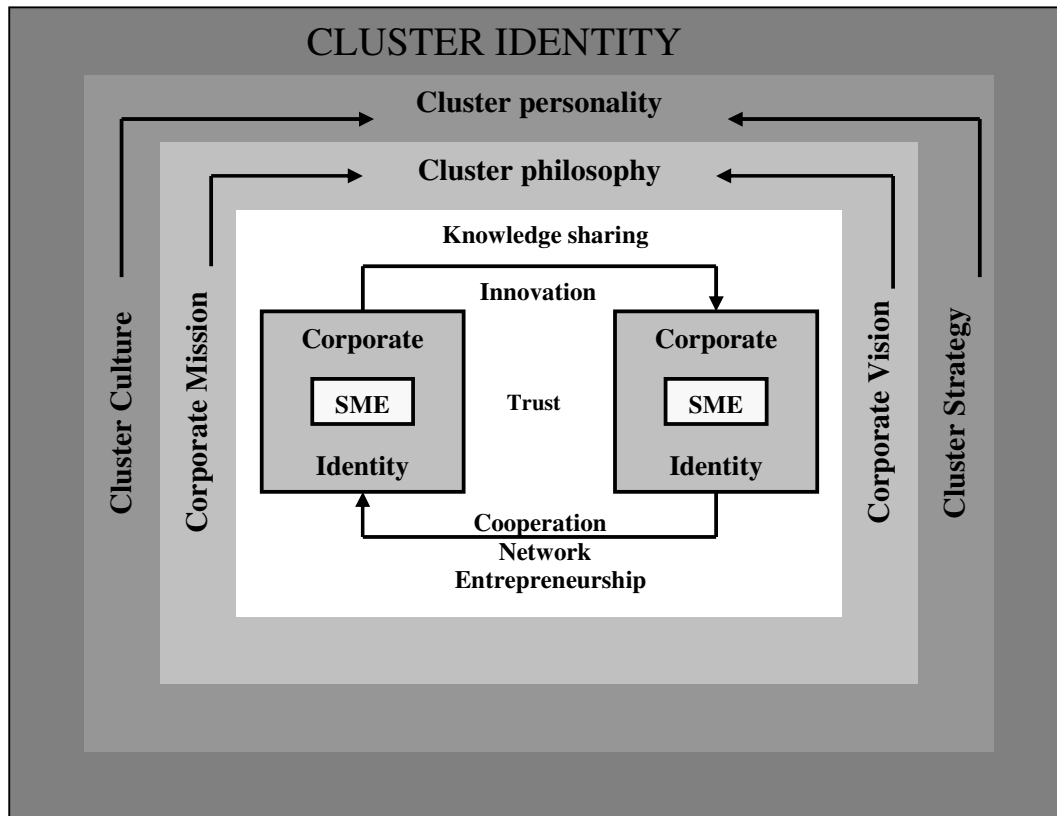


Figure 8. Theoretical framework of the study.

So far, the paper has been following the theoretical objectives of the thesis. Going further, the next chapters will focus on the research itself and will aim to answer to the empirical objective that was set in the introductory part of the paper.

4. RESEARCH METHODOLOGIES

After the literature review, this chapter serves as a mean to describe the research methodology that will be used for conducting this research. It will first mention the research design and the data collection methods and then it will bring up the issues of validity and reliability.

4.1. Research design

There are two main research approaches within social sciences: quantitative and qualitative method (Yin 1994). A quantitative method is formalized and structured and has the purpose to make generalizations, based on the processed results of the investigation. The results of a quantitative research are measurable and can be easily presentable in figures. On the other hand, qualitative methods engage researcher's attitude, interpretation and intuitive understanding, which are not subject to quantification and quantitative analyses. To give a better understanding of the differences between the two methods, the following table (4) was established:

Table 4. Main differences between quantitative and qualitative methods. (Malhotra & Birks 2007).

Quantitative method of research is associated with:	<ul style="list-style-type: none"> • Seeks to quantify data • Large scale studies • Answer specific hypothesis • Use statistical analysis
Qualitative method of research is associated with:	<ul style="list-style-type: none"> • Words as unit of analysis • Description • Small-scale studies • Holistic perspective • An emergent research design

The emphasis on this thesis has been placed on a qualitative method where a more detailed investigation is carried out to gain a deeper understanding on specific situations. The situations investigated under qualitative studies are typically “banal” or normal ones, reflective of the everyday life of organizations. Therefore a main task for qualitative studies is to explain the way people in certain situations understand, account for, take action and manage their day-to-day situation (Miles & Huberman 1994: 7).

Qualitative research aims to produce rounded understandings based on the rich, contextual and detailed data as in qualitative analysis the analysis is done with words. These words are then organized to allow the researcher to contrast, compare, analyze and draw out pattern based on them. The researcher plays a key role in the research as he attempts to capture data on the perceptions of local actors “from the inside” through a process of deep attentiveness, of empathetic understanding of suspending or “bracketing” preconceptions about the topics under discussion. (Miles & Huberman 1994: 6-7).

4.2. Research strategy

The decision to use qualitative method in the present thesis implies also that there needs to be chosen a research strategy. There are several choices of research strategies to be implemented: an experiment, a survey, a history, an archival analysis and a case study (Yin 1994: 3). Each of the strategies mentioned above have a different way of collecting and analysing empirical evidence.

Moreover, the main difference between these five research strategies resides in three main issues: the type of research question, the control an investigator has over actual behaviour events and the focus on contemporary as opposed to historical phenomena (Yin 1994: 1). The differences based on these three criteria have been gathered and table 5 has been created.

Table 5. Relevant situations for different research strategies. (Yin 1994: 6).

Strategy	Form of RQ	Require control over behavioral events?	Focuses on contemporary events?
Experiment	How, why	Yes	Yes
Survey	Who, what, where, how much, how many	No	Yes
Archival analysis	Who, what, where, how many, how much	No	Yes/No
History	How, why	No	No
Case study	How, why	No	Yes

By applying Yin’s reasoning, if the “how” and “why” research questions are the focus of the study, the researcher has still to choose from designing an experiment, a history or case study. However, since the thesis focuses on contemporary events and does not require control over behavioural events, experiments and history as strategies are excluded.

As a result from the above investigation, the best research strategy for the thesis is indeed the case study. The choice of strategy is also backed up by some other arguments, presented in the next paragraphs.

According to Daymon & Holloway (2002), a case study is an intensive examination, using multiple sources of evidence of a single organization, which is bounded by time and place. The main purpose of the case study is to increase knowledge about the real insights of the issue of interest and offering particular relevance to researchers’ work.

Yin (1994) agrees with Daymon & Holloway (2002), who elaborates: “in organization studies, case studies are often accorded a central role in research with the case being

allowed to stand on its own in order to generate theory, test theory (is theory applicable to all contexts, for instance?), enable findings from other studies to be confirmed or achieve insights into territory that is previously uncharted or not well documented.”

These final remarks reiterate the importance of using the case study strategy for the present research. Moreover, as Yin (1994) stated, the case study is appropriate when the focus of the investigation is limited to a single aspect of an organization, which in our case is the identity of the cluster.

4.3. Interviews as means of data collection

Data collection for case studies can rely on many sources of evidence. Yin (1994: 78), distinguishes from six different sources: documentation, archival records, interviews, direct observation, participant-observation and physical artifacts.

Interviews are extremely flexible research tools. In the context of this research, an interview will be used as a tool of gathering empirical data that will be analysed and further compared with the theoretical issues about the topic in question. Thus, the interview will serve as a method for making analysis and interconnecting the theoretical framework with reality.

However, all the research methods have their downsides. As presented by Yin (1994: 80), interviews can be biased due to poorly constructed questions, have response bias, can have inaccuracies due to poor recall or have reflexivity (interviewee give interviewer what the latter wants to hear). However, they are targeted methods, as they focus directly on the topic of the case study. In addition they can also be insightful by providing perceived causal inferences.

Given the above facts about interviews plus the fact that they are an essential source of case study information, the main method for gathering primary data for the case study

will be the interview. However, we will also use several documents (websites, marketing material, etc.) in order to collect secondary data for the case study.

According to Brewerton (2001), interviews can take a variety of forms, depending on the data required and the research question. There have been identified three different types of interviews: unstructured interviews, structured interviews and semi-structured interviews.

When the researcher does not follow an interview sequence and obtains information by engaging the interviewee in a free and open discussion on the topic of interest, it is considered that the researcher conducts an unstructured interview.

Opposed to the previous concept is the structured interview. In this type of interview, the interviewer uses an interview sequence with predetermined questions that are asked in exactly the same way. According to Brewerton (2001), this type of interview ensures rapid data coding and analysis and easy quantification of data, but the approach constrains interviewees and does not allow for exploration into further areas of interest.

A semi-structured interview is a middle way of interviewing between the unstructured and structured interviews and it incorporates the advantages of the both above-mentioned techniques: easy to analyse, quantify and compare gathered data. Moreover, as suggested by Brewerton (2001), this type of interview gives the interviewee the chance to explain their given answer and to provide a more in-depth view on the subject in matter.

4.4. Data collection process

The subject of study for this research is a robotic and automation cluster from Denmark, called RoboCluster. It is important to find out that RoboCluster is actually the reason of this research. While studying as an exchange student at the University of Southern Denmark (SDU), in autumn 2007, I was researching topics for my final thesis. It was

clear for me at that time that I would write a topic related to the corporate branding area. After a meeting with the Viden til Vaekst office in SDU's premises, I have found out that RoboCluster was actually interested in finding new ideas for internationalization. In order to discuss more about the subject, I set up a meeting with the Marketing responsible of the cluster. Their main problem was finding methods of reaching international awareness, so that they can attract international members and be able to receive international financing.

As mentioned before, one viable way of reaching international awareness is through branding. After I have approached my professor of Brand Management, Matthias Bode, he has suggested that the starting point of the paper should be that of identity. Therefore, I have decided that it will be challenging to study the concept of cluster identity, especially that the study has not received any previous attention.

As discussed in the previous sub-chapter the appropriate method to collect data in order to use in the present case study is the interview. There are two different ways to administer the interview: face to face and telephone interview. In the present study I have used both way, however in different cases.

In order to collect information for the case study I have used the cluster website, various brochures provided by the cluster and other relevant information found on the internet. However, there were still some issues that needed some clarification, therefore it was necessary to contact the cluster and conduct some face to face interviews with the people from the Secretariat. Therefore, I have conducted two face-to-face interviews with employees from the Secretariat of the cluster. The questions that I needed to clarify were divided into two different sections (see appendix 1). First it was the section with questions related to corporate identity, which was administered to the Marketing responsible of the cluster. The second part had to do with the selection and integration of the members and had to be administered to the project coordinator in the SupplyNet.

Both interviews were administered at the Secretariat site on the 17th of September. The first interview with the Marketing responsible has lasted about 15 minutes, while the

second one relatively 30 minutes. In the latter one although having a clear structure, it was felt the need of adding extra questions to better understand the answers. After the results were analyzed, they were sent to the Marketing responsible of the cluster in order to correct possible misunderstandings.

The second type of interviews, with the companies, had a different approach. The first step was to design the questionnaire (see appendix 2). After it has been completed, it was sent to the Marketing responsible of the cluster for further corrections. Then it became a problem of administering the interview as well as selecting the target sample of the research.

RoboCluster is specialized into four different areas: play and entertainment, biological production, industrial production and health care. SupplyNet is the network inside the industrial production specialization and is actually the core in RoboCluster. However, the members inside this network can deliver to all the focus areas and not just to industrial production. Therefore, it makes sense to apply the research to this network.

SupplyNet is formed by 32 companies. Although the majority is concentrated in the Funen area, there are also some members in the other regions of Denmark. Therefore, conducting face-to-face interviews with the companies might have proved to be a problem. It is important to note that one of the criteria for selecting future members in the cluster is that the General Manager should be the contact person for the network. Therefore, it is implied that the interviews should be conducted with the General Managers of the companies that are cluster members. As a rule, General Managers are very busy persons. Therefore, in order to overcome the distance and time process it was natural to conduct telephone interviews with the members.

In the selection of members the following criteria were considered. Firstly, I wanted to have a diversified sample, therefore I didn't want to include members with the same characteristics. The criteria that I had in mind when selecting the member was: number of years of being a member, number of years since the company was founded,

geographical position and whether the member was an active or latent member in the cluster.

The project coordinator for SupplyNet was responsible with contacting the companies and setting up phone interviews. Initially the number of persons interested in taking the interview was five, but it was downsized to four due to the unavailability of one member to take the interview in due time. Moreover, there was a change in the companies that have participated in the research. After the third interview there was a clear view on how the results look like and it was interesting to add to the interviewee a company that is bigger in size and with more experience on the market than the others. In order to better describe the final target sample, table 6 have been constructed.

After the data has been gathered, it was prepared for analysis. Firstly, the data has been coded, in order to differentiate and to combine the retrieved data. According to Miles and Huberman (1994: 56), “[c]odes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during the study.

Table 6. Sample companies for the research.

Questions	Company A	Company B	Company C	Company D
1	2004- initially a research project	1981	1977	1987
2	7	20	10	30
3	Robotics and Vision	Automation & Quality Securance	Equipment for automation, Robot components, Hydraulic cylinder, etc	Trade house of Robots
4	6 years	2 years	1 ½ years	7-8 months

Qualitative data are harder to interpret compared to the quantitative data. While quantitative data can be easily analyzed with statistics methods, the qualitative data analysis depends to a high degree on the displays that compress and order the data.

According to Miles and Huberman (1994: 141), there are two major families of displays: matrices and networks. The final results of the research have been compiled in a matrix (see appendix 3).

The first step in analyzing the data was across rows, which means analyzing the responses for each company. Then, the answers were linked to the profile of the company, in order to better understand and link the data to a specific characteristic of the company. After the answers to the questions have been investigated one by one, the research is taken to a higher level, that of comparing the responses with the cluster characteristics.

4.5. Reliability and validity of the study

According to Kirk, Miller and Silverman (qtd. in Perakyla 1997), reliability and validity are important in a research as they put the objectivity of the research at stake. In the following paragraph I will present the two concepts and their implications on the present study.

Validity is seen as the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. For a study to be valid, it has to “conform to, and ”pass” certain design tests with regard to various levels of research validity” (Yin 1994). Yin (1994) has identified three different types of validity: construct validity, external validity and internal validity (see table 7).

Construct validity comes in place when there were correct operational measures established for the concepts studied (Yin 1994: 34). This refers whether and how the researcher has developed the operational set of measures and whether he/she has developed any subjective judgments in the collection of data. In order to meet the test of construct validity, there are three steps that the researcher can follow. In the data collection stage, using multiple sources of evidence and establishing a chain of evidence

can improve the construct validity. The third method can be applied in the composition stage and it consists of having key informants to review draft case study report.

Table 7. Validity in case study research. Yin (1994).

Tests	Case study tactic	Phase of research in which tactics occurs
Construct validity	<ul style="list-style-type: none"> • Use of multiple sources of evidence • Establish chain of evidence • Have key informants review draft case study report 	Data collection Data collection Composition
Internal validity	<ul style="list-style-type: none"> • Do pattern matching • Do explanation building • Do time-services analysis 	Data analysis Data analysis Data analysis
External validity	<ul style="list-style-type: none"> • Use replication logic in multiple case studies 	Research design

In order to improve the construct validity in the study, I have used data source triangulation, by gathering data from multiple sources: open-ended interviews and various documents. Nonetheless, in order to clarify all the unclear aspects, the contact person in the cluster reviewed the initial draft of the case study report.

By internal validity, Yin (1994: 35) understands “establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships. According to Yin (1994: 35), there are three different methods that can be applied in the data analysis stage in order to ensure the internal validity of a study. Firstly, it can be used a within case and cross case pattern matching compares an empirically based pattern with a predicted one. A second method, which we have also adopted in the present study, is the use of illustrations and diagrams in order to assist the explanation building of the case. The third suggestion is time-series analysis where measures of the dependent variable are made in order to look at changes over time.

External validity can be understood as the domain to which the study findings can be generalised (Yin 1994: 35-36). It is recognized by Yin (1994: 35-36) as the major barrier in doing case studies. There are some methods that can be applied in order to

ensure the external validity of the study. A single case study is typically a poor base for generalizations; therefore it is impossible for the author to apply the replication logic. However, according to Marshall and Rossman (qtd. in Riege 2003) having the definition of the scope and boundary of the study in the research design phase will help to achieve analytical generalizations.

Reliability is defined as the extent to which another study, if conducted in the same way, will yield the same results. According to Yin (1994: 36), “[t]he goal of reliability is to minimize the errors and biases in a study.” In the same way as with ensuring validity, there are a number of techniques that can be applied in order to ensure reliability. Due to the extended number, I will only present the ones that I have applied in order for the present study to be reliable.

Firstly the questionnaire has been sent to the contact person inside the cluster in order to correct the way of questioning, structure and the terminology used in questioning. In addition, a tape-recorder was also used during all the interviews that enabled the author to double check that the respondents had relevant answers in regard to the actual question. A case study database was created, in order “to provide a characteristic way of organising and documenting the mass of collected data” (qtd. in Riege 2003). Last but not least, with the help of the contact person in the cluster, the most proper respondents were identified and asked to participate in the study.

However, similar to other study, this research too has some downsides in terms of validity and reliability of the study. One of these can be considered the small number of respondents that participated in the study. As the total sample is 32 cluster members, 4 represents only 8% of the cluster. Moreover, another potential threat to the validity and reliability of the research is the fact that out of four investigated companies, only one differed significantly from the others in terms of years on the market and stage in the life cycle.

5. EMPIRICAL ANALYSIS AND FINDINGS

The purpose of this chapter is to present and analyze the findings of the research. The chapter starts by introducing the case cluster to the readers, in order for them to get a better understanding of the subject of this case study. Subjects like the history of the cluster, its mission and vision, cluster, strategy and a short introduction in how members are selected and integrated in the cluster will be touched. Then, the findings based on the empirical research on the members are analyzed and discussed. In order to verify the findings of the research, I have added appendix 3 to the paper, which is actually a transcript of the interviews, for each company.

5.1. The formation of the cluster

RoboCluster was founded in 2002 as a result of collaboration between the Odense Steel Shipyard and the Maersk McKinney Moller Institute at University of Southern Denmark. The purpose of the new founded cluster was to promote the business opportunities in the robotic sector and was supported by the Odense Municipality and the Funen County. Its location is a strategic one, as it lies between three major science institutes: University of Southern Denmark, Faculty of Engineering and the Technical College of Odense.

The initial members of the cluster come from a common background and have shared a common history: the robotic department of the Odense Steel Shipyard. Although initially thought as a cluster at a regional level, RoboCluster has developed in a national cluster with members from all over Denmark. And things are more and more ambitious, as they also aim to gain international awareness. However, although it has reached a national level, the core of the cluster is still in Funen and the region of Southern Denmark. It is here that the most members and the Secretariat of the Cluster are located. A good argument for maintaining the core activity on Funen might be the saying of RoboCluster coordinator, Michael Wehner Rasmussen *“there is an amazing amount of*

knowledge about robotics technology and production automation in many large and small robotics companies in Odense”.

However, the year 2007 is considered to be a milestone for the cluster. It is in the autumn of 2007 that the top management of the cluster has changed and in turn it becomes more ambitious and aspiring. In order to achieve its vision, RoboCluster is aware that it needs a local fundament to be established, the regional platform to have a critical mass, a national focus to be noticed international and international awareness in order to broaden its focus and innovational strengths. As it shifts forward from a young upcoming cluster into a mature one, it also reached the level of turning from a regional cluster to a national one. This process will be covered more in depth in the following subchapters.

5.2. Philosophy

The main objective for the cluster is “to maintain and further expand the robotics sector in Denmark by generating and ensuring optimal conditions for innovation in new as well as existing enterprises and to motivate highly-educated employees to stay in the region” (RoboCluster 2008). To achieve this objective, RoboCluster has created knowledge sharing clusters between supplier, producers and education and science institutions that concentrate their activities in the field of robotics and automation.

RoboCluster has a strong mission and vision (see figure 9), which is communicated to both external and internal stakeholders. According to their website, the vision of RoboCluster is “to become one of the world’s most innovative growth environments in the field of robotics and automation technology in 2010”.

Regarding the mission of the cluster this can be summed up as following “RoboCluster encourage economic growth through knowledge exchange between industry and knowledge institutions involved in robotics and automation technology”. According to Rune Larsen, the previous manager of RoboCluster, both small and large companies in

Odense have a great amount of knowledge in the field. However, few companies know that this knowledge exists. As RoboCluster has “knowledge about knowledge” (Larsen 2006), it will act as a facilitator for companies to find out the knowledge that they need.

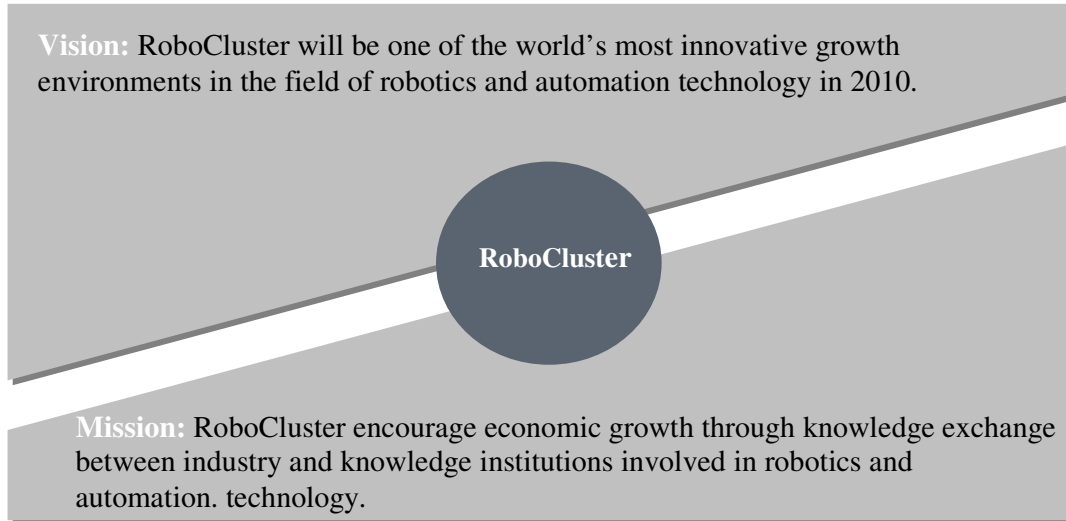


Figure 9. Mission and vision of RoboCluster.

5.3. Personality

RoboCluster is still a young organization that has principally focus on knowledge sharing through different projects. Although it has a strong philosophy, which is greatly advertised, it has no focus on the softer characteristics of the organization like values or culture. Therefore, RoboCluster has not formed nor communicated any sort of values to its stakeholders.

However, in order to have a better understanding of the cluster, I have conducted a short structured interview with the Marketing responsible for the cluster in order to find out how the cluster can be described and how the stakeholders should perceive it.

In the interviewee's mind, the cluster can be characterized by three distinct words: collaboration, innovation and economic growth (see figure 10). Firstly, collaboration is

the type of relationship that develops inside the cluster between the science institutions and companies in order to share the knowledge. Secondly, innovation is the core activity for an R&D cluster. RoboCluster aims to develop new products and processes using robot technologies. At its turn, this will create new opportunities and new markets for the members of the cluster. Thirdly, RoboCluster is bringing economic growth for companies. As most members of the cluster are concentrated in the Funen region this also means an economic growth for the region, as well as for the country, as the activities will create more jobs for the highly educated people, form new market opportunity for the companies, attract more students to the education institutions, etc.

As I have previously mentioned, autumn 2007 was a turning point for RoboCluster. Before, RoboCluster was perceived as someone who created many activities through projects and many opportunities for companies and persons interested in the robotic field. The main motto for the cluster was “to set robots in action”.

Cluster's characteristics		
Collaboration	Innovation	Economic growth

Figure 10. RoboCluster characteristics.

As the cluster has reached a new phase in its evolution, maturity, it tries to differentiate itself from a regular cluster and the core activities will bring new characteristics in the mind of the stakeholders (see figure 11). For starters, there is professionalism. RoboCluster should be perceived as a professional cluster in regards to its tasks. Participation into projects will not be done randomly, but through a more structured approach. In addition, it will add new activities to its portfolio. While, so far it was focusing just on knowledge sharing and collaboration, it will also focus on commercialization. We should not forget that the cluster is based on knowledge both

from the Danish robotic sector and the new technologies developed inside the cluster. This creates a new opportunity for the cluster that of commercializing this knowledge.

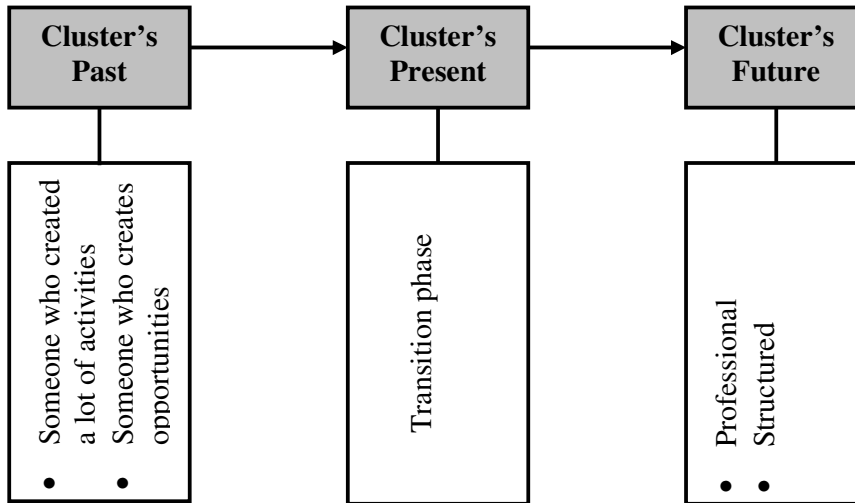


Figure 11. How RoboCluster should be perceived.

As I have already mentioned in the theoretical part, strategy is practically the vision of the company translated into action. Therefore, how can RoboCluster become one of the world's most innovative growth environment in the robotics and automation field by 2010?

RoboCluster has set for itself a number of goals in the short term (see table 8). I have already mentioned the shift from a regional cluster to a national one. RoboCluster has already have members on Jylland and Sjaeland, including two science institutions: Aalborg University and Technical University of Denmark (DTU). Being relatively far from the centre of the cluster, a logic solution will be the creation of "satellite" office near these places, which will improve the communication and cooperation.

Robotic technology is a broad subject. RoboCluster has chosen to focus its activities into four specialized areas: play and entertainment, biological production, industrial production and health care. It is important to know that these four areas are somehow separate as they have their own networks.

Table 8. RoboCluster goals.

RoboCluster goals
<ul style="list-style-type: none"> • Become an acknowledge cluste in Northern Europe • Shift from regional to national exposure • Focus on four key specializations • Create „satellite“ offices in Aalborg, Arhus abd Copenhagen • Aim to develop the nearby hospital as the most automated hospital • Collaborate with other international clusters • Appoint a international relationship person

The play and entertainment category has received a lot of attention in the media lately mostly due to the international robot festival held in Odense: Robots at Play. Then, the industrial production has been the area where some of the biggest projects in RoboCluster have been developed.

However, with the construction of 5 new hospitals in the area, one that will be very close to the cluster Secretariat, the health care area is receiving much more attention, as it aims to develop the nearby hospital as one of the most automated hospitals. CareNet is the network in this area and one of the activities in Health Care. The new hospital will also create the opportunity for a science park in the neighboring area, which will act as a Robomedic Valley that will deliver technology to the hospital.

RoboCluster not only aim to gain national recognition, but it is also concerned into achieving international awareness as an important cluster in the Northern Europe. It is aware that knowledge resides not only in the members of the cluster. New technology and processes are developed in robotic clusters all over the world. In this case, collaboration with clusters from Germany, Japan or the United States in order to transfer knowledge will save time and resources and will develop more advanced technology.

With the aim of strengthening the cooperation with international organization, RoboCluster will appoint a person inside the organization that will only focus on traveling abroad and creating international relationships and nets.

5.5. Members

RoboCluster partners come from three different areas. There are education and research institutions, public institutions and companies. The companies inside the cluster can be members of different clusters (i.e SupplyNet or CareNet). They can be either small companies, with up to ten employees but also large companies with hundred of employees. RoboCluster member companies are between the most important players in the market as they account for more than 80% of robot sales in Denmark.

In order to better understand more about the selection of the members and the interaction that takes place afterwards, I have conducted a semi-structured interview with a project manager in the SupplyNet. It is very important to understand that due to the specialization of the cluster into four different areas, there is a creation of individual networks in those four areas. Therefore, RoboCluster members are in fact members of the networks created in the four areas. SupplyNet is the core in RoboCluster, as its 32 member companies are the ones that deliver commercial robotic solutions, which can be delivered to all the four focus areas in RoboCluster. In addition, SupplyNet has its own Decision Board made up by 6 persons.

Regarding the selection of the members there is a semi-structured procedure to it. In most cases companies hear about the cluster either by word of mouth or by attending different fairs. After expressing their interest in becoming members, companies need to fill out an application form and write a motivation letter for joining the network. There are two main important elements in order to become a member. Firstly, only the General Manager of a company can apply for the company to be a member, as he will be the main contact person with the cluster. Secondly, the company should be willing to

spend funds on Research and Development. In addition, members also have to pay a yearly membership fee.

After being accepted by the Board as a member, the company needs to sign the acceptance papers and he will officially become part of the cluster. When asked whether there is an introduction program for the company to the cluster, the interviewee responded as there were no such activities until recently. Without a proper introduction to the cluster and its members, the cluster is predisposed to loose the member or to turn it into a latent member. It should be stressed that a cluster, especially based on knowledge sharing should first of all function on trust. Therefore, a new member has to be integrated properly and explained what the cluster is and what its goals are.

Moreover, future members should be clearly explained what they are expected to deliver to the cluster, not only what they should expect to receive. As Per Krogh Terkelsen, a manager for one of the companies inside the cluster was saying: “you cannot expect to join a network and get something out of it without giving something yourself. You have to go into it whole-heartedly”.

SupplyNet coordinators are aware of this situation and new actions to integrate new members will be implemented. For starters, a new member will have to visit a number of the existing members so they will interact and get to know more about each other. However, a more structure process will need to be implemented.

Regarding the communication between the members and secretariat this is mostly held by emails. A smaller part of the ongoing communication is held by phone conversations and invitations. The reason for a smaller number of phone conversations is the unavailability of the General Managers.

Members communicate between themselves according to the relationships between them. For example companies that have been working on numerous times on the same projects are more likely to communicate between themselves more often from their own initiative, than companies that don't. Moreover, it should be reminded that some of the

founders of the cluster came from the same background; therefore the probability of them being closer together is higher than companies coming from a different background. I have also mentioned earlier that most of the members are concentrated in the Funen region (see figure 12). With this in mind, it will be easier for companies in this area to interact with each other than companies located on the other two regions.

The Board organizes bigger meetings once or twice a year. However, the members have the opportunity to interact with each other in smaller meetings, for example workshops on a specific theme, fairs or conferences, which are aimed to happen four to six times a year.



Figure 12. Repartition of RoboCluster members across regions.

It should not be overseen the fact that knowledge inside RoboCluster is shared through projects and interaction. Therefore, the more actions to get the members together and making them know each other better, the bigger the trust and the knowledge sharing between them.

In order for the readers to get a better understanding of the subject of my study, I have tried throughout the first part of this chapter to make a short introduction to RoboCluster. In the following part of the chapter, I will present the results of the research based on the interviews, and then discuss the findings. The subchapter will be structured in three different parts. Firstly, it will investigate the actors and their own identity. Secondly, the impact that being part of the cluster has on companies is discussed. Lastly, the sub chapter will approach the subject of cluster identity.

5.6. Actors' identity

As already discussed in the Research Methodology part, I have chosen as subjects of the research, companies with various backgrounds in terms of number of years on the market or number of employees. Therefore, it will be very interesting to find out whether we can talk about identity at the actors level or not.

According to the theoretical part, the present thesis is based on a framework, where corporate identity is formed by corporate philosophy, which include the mission and vision, and corporate personality, which is made up by corporate culture and corporate strategy. As a result, I will apply this framework to investigate whether there is a corporate identity of the actors in RoboCluster, and investigate the motives for which this exists or not.

The analysis will start from the first point of creation of an identity, which is the corporate mission and vision. When asked about how their company mission and vision are described, the half of the companies interviewed couldn't answer to the question. The fact is that they have allocated less time to this activity compared to the other core activities of the company. One of the interviewee was mentioning: "*we would like to (have a mission and a vision), but we have a lot of other things to do now*".

Another company was also saying that they don't have a clear mission or vision, but it could be summed up in some words. This can be interpreted as the company having actually a mission and vision, but an implicit one, which has not been communicated or promoted in any way.

Looking back at the pattern of respondents and their answers, it can be easily figured out, that a company, which has been founded not too long ago, has to prioritise other activities, like for example research and development, and try to focus on the core activities. As a new entrant on the market, focusing on the core competencies of the firm and on differentiation to other companies is more important than conducting marketing activities.

However, the problem of not having a mission and vision could also be identified in companies that have been founded decades ago. Firstly, I should not oversee the fact that corporate identity is a relatively new concept; therefore being for more than 30 years on the market should not imply that a corporate mission and vision should be instated. In addition, looking closely at these subjects, another pattern comes into attention. All of these companies are micro enterprises, with less or equal to 10 employees. In this case, one explanation why they do not have an explicit mission and vision might be the fact that being such a concentrated group of people working together, they already know their expectations and where they will like to be, so there will be no need to make an official mission statement or to communicate their vision.



Figure 13. Factors influencing the mission and philosophy.

To conclude, as it can be noticed from figure 13, due to the fact that the companies are small in size and relatively young on the market, their attention is drawn to more core activities than that of marketing. Therefore, the majority of the actors do not have a clear mission and vision of their own.

The same direction is carried for the corporate culture, which includes the values of the company. Being focused on research and development, the softer side of the business has been overseen. The term of culture and values is not present in their mindset and cannot be easily described. Therefore, I have tried to investigate the words that best describe their company. This time, the answers were very distinctive, based on the life cycle that the company has reached.

It should be noted that in my view, although the stage in the life cycle is directly influenced by the years on the market, it should not be understood as being similar to the latter. Instead, the stage in the life cycle of a company is given by a combination of elements like size, age, complexity and management approach.

As the research shows, companies that are still in the early stage of the life cycle value more the entrepreneurship spirit and the technological developments. On the other hand, companies that have over passed this phase and are in the growth stage will most likely value other qualities as for example: people, quality and excellence.

Therefore, as the firms inside the cluster are positioned in different stages in their life cycle, they might have different reasons and interests from being part of the cluster. While the newly established companies are interested in working closely to develop new technology, the mature companies might be interested in other opportunities inside the cluster like achieving awareness by being a member of a cluster.

To sum up, the research has found different cultures between the companies. While ones are focusing more on the technological side, the others that have reached a higher stage in the life cycle have shifted into a more approachable humanistic side (see figure 14).

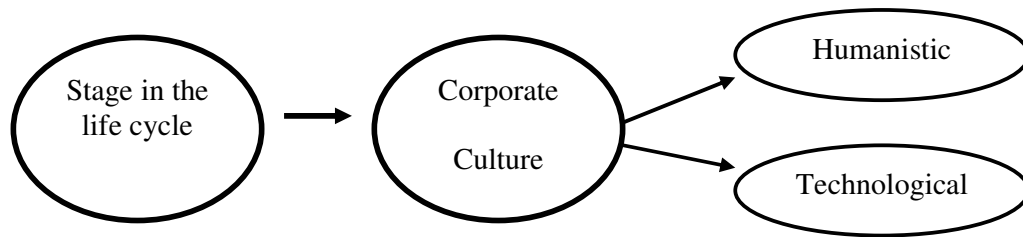


Figure 14. The influence on corporate culture.

Last but not least in the formation of an identity is the corporate strategy. At the basis of the strategy of an organization is the goal that should be reached. The lack of the organizational concentration on the marketing field had an impact on this question as well as on the others.

Once again, there can be noticed a discrepancy in the answer of the subjects, based on the life stage of the company (see figure 15). Technology development and its implementation is still a goal for a young company together with other commercial goals. In the meantime, established companies are looking to achieve better market share in order to become national leaders and well known in the Scandinavian region on their segment.

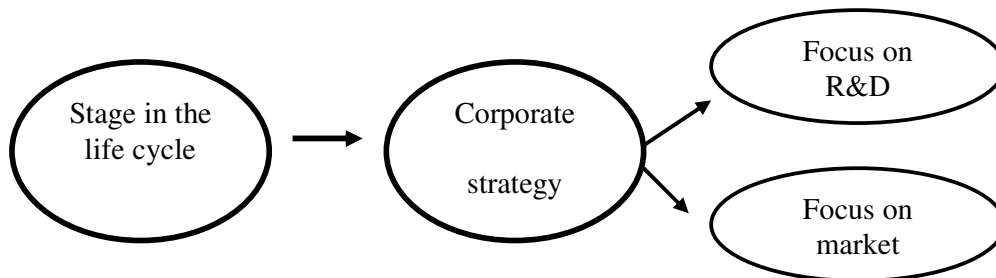


Figure 15. Influence on the corporate strategy.

In the following paragraph, I will compare to a certain degree the corporate identity of the cluster, as presented in the first subchapter and the identity of these companies.

As presented in the first subchapter, RoboCluster has already a mission and a vision that is strongly communicated to the members. Meanwhile, as presented above, the majority

of the interviewed companies don't have a philosophy of their own. Some good explanation can be the fact that young and small companies don't have time and don't need to communicate this philosophy. Although not communicated they still exists as an overall goal that bounds the company together. RoboCluster on the other hand, already has 32 member companies and a total of 14 employees in the Secretariat, therefore, having a clear mission and vision is needed.

Regarding the values that the cluster has, I have already pinpointed to collaboration, innovation and economic growth. They are very different from the ones mentioned by companies: people, quality and excellence. It is obvious that the values of the cluster are incorporating specific characteristics of a cluster, while the companies focus more on the softer side of the business.

RoboCluster has many medium term goals that are strongly connected to their vision. Although different in terms of scope, the goals from the cluster are closely related to those of the companies in the maturity phase. The cluster itself has emerged from the initial upcoming cluster to a more mature one. Being a national important cluster and receiving Scandinavian awareness are common goals for all the parties involved. In addition one of the interviewee has mentioned that his goal is *“to get the industry to acknowledge a new technology, we are working with ... and that goes for the RoboCluster as well, as we are both involved in developing this technology.”*

In the previous subchapter I was talking about members that become a part of the cluster in order to see how they can benefit from the cluster. However, the above mentioned company that share a common goal with the cluster can be categorized as the type of member that thinks how they (the company and the cluster) can do something to benefit both them and the cluster. I believe this is the type of collaboration that should develop inside the cluster.

With this being said, I will begin the next part in my research, namely to see whether the cluster had an impact on the members and what opportunities does the cluster create for them.

5.7. Impact of the cluster on its members

Creating and sharing knowledge is the main purpose for an R&D cluster. However, companies can have other motives for joining a cluster, depending on their image about the cluster and the opportunities that the cluster can bring them. With this in mind, it was interesting to see what opportunities clusters expect from being members and whether the cluster has influenced them in any way. The responses have been gathered in figure 16.

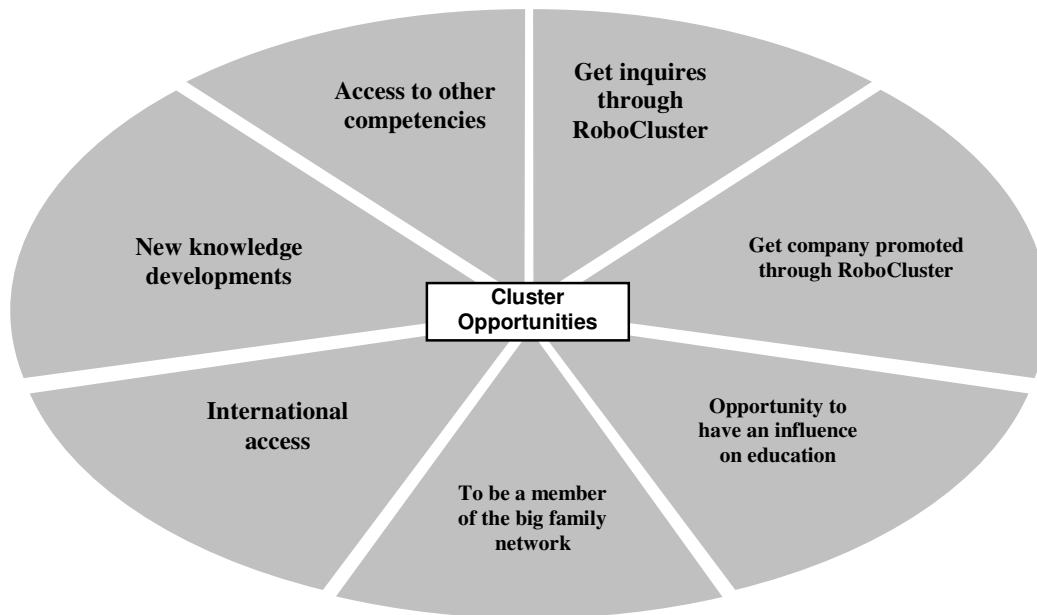


Figure 16. Opportunities from being a part of the cluster.

Some of the companies joined the cluster due to its network existence. As one interviewee was saying, his reason for joining RoboCluster is “*to be a member of the big family*”. Being part of the network and meeting different people within the same background gives them the opportunity to discuss more about robotics and automation. Moreover, the existence of the network gives companies the opportunity to develop good relations between members.

Another member considers that the cluster is a facilitator that can grant access to other competencies, by gathering companies that are specialized in the field. Furthermore, the cluster does not only give access to existing competencies, but also creates new knowledge through different project and collaboration between members. Being part of the cluster can help the company shape the future technology. As one member suggested, the cluster gives them *“opportunity to have an influence on education”*.

On the commercial side, being part of the cluster is considered as a mean of promotion for some of the companies, as they can receive inquiries through RoboCluster. By reaching an international status, it also gives the companies the opportunity to access international markets.

Although there seems to be many opportunities for members, it is interesting to see how it actually impacted the companies that are in the cluster. The fact that they were part of a network has impacted the most the companies. As mentioned before, as network members companies benefit from the opportunity to interact with other well-educated people in this field. Therefore, being a member of the cluster gives companies the opportunity of *“get a very open dialog at a very high-tech level”*.

The impact of the cluster on companies can be felt also on the commercial and development side. Companies can apply solutions in more than one industry; however it is hard to enter a new industry. As one of the interviewee mentioned, by joining the cluster it now *“has openings to some industries it wouldn’t get in”*.

When asked whether their strategy or goal has changed in the recent years, all the respondents answered affirmatively. However, it is only one company that has acknowledged this being a result of the cluster membership. This case also bears a special history inside the cluster. Started initially as a research project in the vision field, it was a part of the cluster since the beginning. And in time, they have realized that the focus of the company should be vision and robotics.

However, the other companies, which joined the cluster at a later stage in their life cycle and had their own concrete goal and strategy before joining the cluster, have not felt any impact on them from being part of the cluster. But, the cluster has acted as a facilitator for reaching their goals as one interviewed company has mentioned. According to the interviewee, the cluster creates “*opportunity to achieve our goals*”.

After investigating the reasons for joining the cluster and how the cluster has impacted the companies, the next sub chapter will investigate whether the companies can function as an entity and develop some common understandings of what the cluster really is.

5.8. Cluster identity

In the previous subchapters issues like actors’ identity and opportunities from being part of the cluster have been investigated. Moreover, in the first part of the chapter, there was an introduction to the cluster and opinions of what it is and its aim were presented. This subchapter will investigate what the cluster is and whether there is a common acceptance from its members.

In the first attempt to discover how the members describe the cluster, the interviewees were asked to mention some phrases that would describe the cluster best (see figure 17). The purpose of this question was to find out whether their opinions are correlated with the mission and vision of the cluster. There have been identified six types of answers, which will be discussed in the next paragraphs.

According to one interviewee, RoboCluster can be described as a “*relatively close connection between many robotic companies*”. He goes further on and describes what he means by a “close connection”. According to him, having a “close connection” means that all the members know who they are, shake hands; know where they work and what they do. This affirmation can be linked with the principle of networking that is at the basis of the cluster formation.

According to another interviewee, RoboCluster can be seen as “*a well known and well-educated people involved with robots on the Danish market*”. This also brings the networking aspect into discussion. As this interviewee has joined the network quite recently, for him, being part of the cluster is more about following a trend and being part of a community that other important companies in the industry are part of. This conclusion is also supported by the fact that it is this member that expects to be promoted by being part of the cluster. For him, development of new technology is not a priority, but having a good relationship with the other players in the industry.

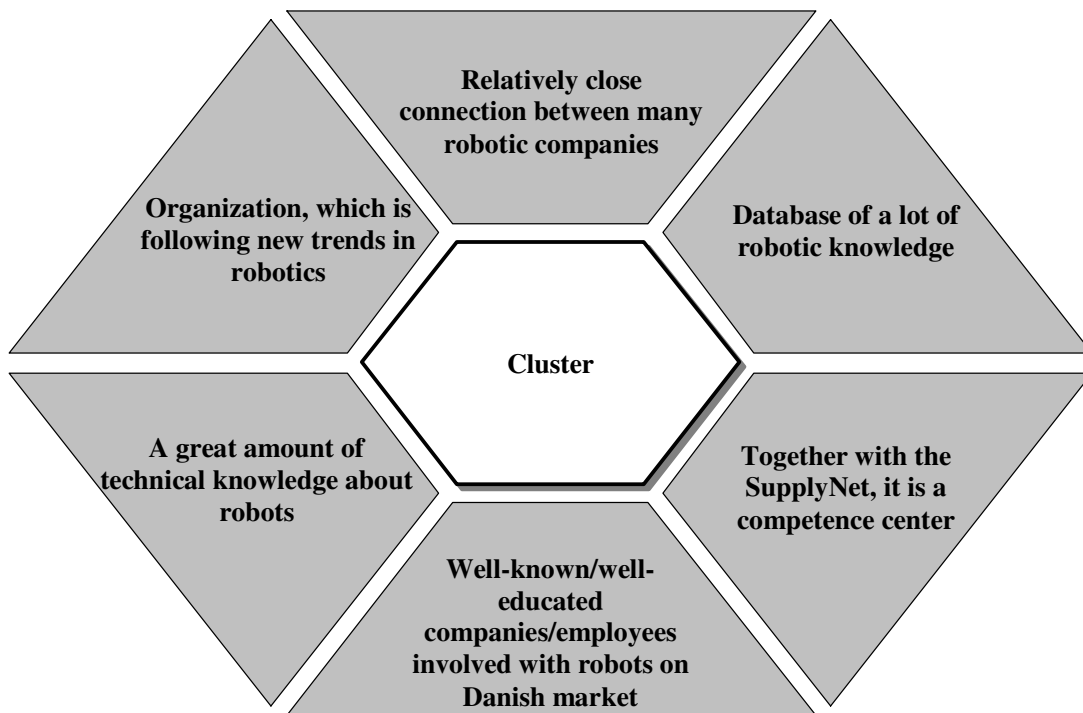


Figure 17. How members describe the cluster.

Another phrase that can describe the cluster is “*an organization that is following new trends in robotics*”. This signifies a shift in the meaning of the cluster from a network-based entity to a technological knowledge based one. In this case, RoboCluster is seen as an innovative organization, which is open to new developments in the industry and applies them in their projects. In addition, RoboCluster is perceived as being a great amount of “*very technological knowledge about robots*”.

It is a common understanding for the majority of the members, that the main resource for the cluster is knowledge, thus making RoboCluster a knowledge database. One of the interviewees goes further into this direction and declares that RoboCluster “*together with the SupplyNet it is a competence centre*”. This brings me to the resource based theory and the competence theory. In addition, it can also be referred to the knowledge-based theory, which mentions that knowledge is the resource that is capable of creating a sustainable competitive advantage. Therefore, it can be concluded that being part of the cluster and having access to this knowledge empowers the companies and gives them that competitive advantage over their competitors.

As a conclusion to what was discussed in the paragraphs above, when thinking about RoboCluster there are two major characteristics that come into the members thoughts: network and knowledge database. Actually both of the above characteristics are main characteristics of a cluster. To go further with this thought I can say that there are not distinct characteristic that makes the cluster unique except the fact that its members are well known and well regarded players in the Danish robotic and automation industry. Therefore, if it was the case of another robotic cluster emerging in Denmark, RoboCluster has no distinct features that can separate it from its competitors and gives it a competitive advantage. For the time being, RoboCluster is understood as a network formed by important robotic companies, that gather and store robotic and automation knowledge.

After discussion the first part of this analysis, I will go on to the next one, which aims to investigate the values of the cluster, as seen by its members. The members were asked to say the first words that come into their minds when they think about the cluster, and the results are represented in figure 18 and discussed in the following paragraphs.

When coding the answers, I have discovered two different types of results that can be correlated with the length of time the company has been a member of the cluster. When presenting the answers I will start first with the companies that have been members the longest time and will end with the ones that have become members more recently.

According to the interviewee that has been a member of the cluster since its formation, the words that comes into his mind when thinking about RoboCluster are: “*good understanding of robotic community, high activity and high support by regional government and to some extent national government*”. Again, it can be noticed the accent on the network characteristic of the cluster. Then, it can be noticed the activity factor. Activities, together with the actors and the resources are the main elements in business networks. Without activities there cannot be a proper functioning of the network. The most activities that a network has, in the case of the cluster the more projects it is involved in and the better his performance will be. In addition, I go back to the way the cluster should have been perceived until now and “*someone who created a lot of activities*” was one of the mentioned traits.

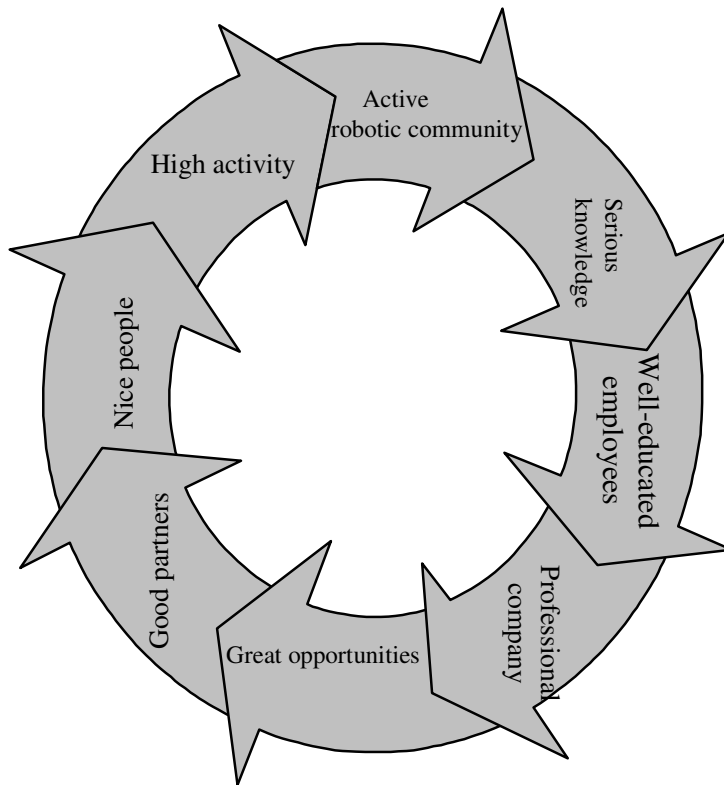


Figure 18. Words describing the cluster.

Regarding the last pair of words used to describe the cluster; high support by regional government and to some extent national government is another characteristic discussed

in the theoretical part linked to the description of clusters. In Denmark, clusters are also subjects for financing from the local or national authorities. Therefore, having a support from regional or national authorities does not differentiate RoboCluster from the other clusters.

Going further to the answers of interviewee that have not been for too long time members of the cluster, it can be found that they are totally different from the ones presented above.

Firstly, the cluster gets a more humanistic side, not focusing solely on the technological aspects. According to one interviewee, “nice people” is the word compound that can describe the cluster. Here it can be seen that there is more to the cluster than to the network itself. Members get deeper into the soul of the cluster and see the traits that make it different from a regular cluster. Another interviewee goes further into the qualities of the members and describes them as being *well educated members*. Therefore, it is not a regular cluster that has different networks in different competency areas, where the knowledge is shared. But, the companies and the people that represent the companies are well educated and nice.

Furthermore, these companies are not only some members that get together when they need to hold the meeting or to work in projects, but as one of the members that is actively involved in the cluster activities, they are also *good partners*.

Going back to the cluster identity explained by the Secretariat, it was mentioned that one way that the cluster is perceived is that of creating opportunities for companies and persons with interest in the field. Although it was then stated that this is the way the cluster should have been perceived until now, it seems like it is still understood in the same way. As one interviewee was mentioning the cluster means *great opportunities*. There have already been presented in the previous subchapter a list of the opportunities identified by the members of the cluster as being expected from being part of the cluster. Developments of knowledge and access to existing knowledge have been two of the opportunities mentioned. One more time knowledge is on the lips of the interviewee,

this time in another concept that of “*serious knowledge*”. I can even go further and extend this concept of seriousness to the whole cluster. Furthermore, to this concept it can be added that of professionalism, as it was mentioned by one of the interviewee.

From the above presentation of the results, there can be noted a major difference between the companies that have been a part of the cluster since its beginning and the ones that have joined it in the past few years. While the one that has been raised in the concept of the cluster still maintains the basic characteristics of a regular cluster, the new members tend to have a more critical view on how the organization really is. Being formed by actors, having resources and deploying activities are characteristics similar to all the clusters. However, qualities like nice and well-educated people, seriousness and professionalism are qualities that can differentiate a cluster from another one, which focuses on robotics and automation.

When talking about the actions that the cluster should take in order to become more successful, the majority of them were directly linked to a marketing approach. Firstly, the cluster should become more well known and to gain more awareness. That can be done by properly using the marketing and communicational tools. Moreover, moving from a regional to a national cluster will help achieve this goal. Gaining awareness will in turn bring more attention from other players in the industry and get more projects inside the nets.

However, the marketing effort should focus strongly on the image that they want to communicate to the stakeholders. And in order to be sure that there will be some consistency in the image, there should be critical attention headed towards consolidating the identity of the cluster.

6. SUMMARY AND CONCLUSIONS

In this chapter the final conclusions to the research will be drawn. This chapter starts by reminding to the reader what the objectives of the papers are and whether these have been reached. Besides the two aspects already mentioned above, the chapter will also include the managerial implications of the research and give some suggestions for further research.

6.1. Summary

The case subject for this study is RoboCluster, as the name indicates a robotic and automation cluster located in the Funen region of Denmark. RoboCluster was founded in 2002 and it is now in the phases of transition from a young organization to a mature one. Moreover, it has understood that in order to achieve its goals it takes more than excellence in the R&D sector. But, RoboCluster needs to gain better awareness both nationally and internationally. The natural way to achieve this awareness it would be through the branding activity. However, in order to achieve the desired image from the stakeholder, it should firstly have a cohesive corporate identity that should be communicated. With little to no research in this area the purpose of this paper is to investigate whether it can be talked about a cluster identity and which are the elements that can form it.

To make it easier to interpret the finding three different areas have been identified: actors' identity, the impact of being a member of the cluster on the companies and finally the cluster identity, which are approached separately in the questionnaire.

For the empirical research, there have been selected four companies out of 32 members to participate in interviews. The companies have been selected based on their different criteria and the aim was to choose the one from every criteria. Although the sample is small, the results of the findings can be generalized to a bigger population.

In order to investigate the identity of the members, three questions were asked, which contained issues related to the philosophy of the company, culture and strategy. As results show, there can be identified a specific trend in the formation of the identity in the R&D companies.

There have been set some additional objectives, to achieve the overall purpose of this thesis. Therefore, the paper will also aim to find an answer to three different objectives, two theoretical and one empirical, which are treated in separate chapters.

The starting point in the thesis was to define the two concepts of the study: cluster and branding. Clusters have been widely acknowledged as being a solution in overcoming the size limitations of small and medium enterprises. Moreover, clusters are an important instrument in improving companies' productivity, innovativeness and overall competitiveness. At the existence of clusters stand five different elements: actors, trust and cooperation, knowledge sharing and innovation, entrepreneurship and networks. In addition, another special characteristic of the cluster is being geographical proximity, which is thought to bring additional benefits to it. The second concept that has been investigated is that of brands. Although they have existed for hundreds of years, brands have received attention in the literature in the past 15 years. Brands can be defined in various ways, but what is most important is that they can become intangible resources for the company that help the latter to reach sustainable competitive advantage. Firstly applied to products, the concept has been extended to different area and can now be applied to services, companies, non-profit organizations, countries and even people.

The second theoretical objective is reached in the third chapter of the thesis and it marks the shift from broader concepts to exact terms and their meaning. The reader is firstly introduced in the concepts of identity and the different approaches in the existing literature. As there have not been any reference studies in the cluster identity area, I had to refer to the marketing approach of the concept, more exactly Balmer's framework, and apply it to the present study. According to Balmer, corporate identity is formed by two key elements. Firstly, it is the corporate philosophy, which is formed by the mission

and the vision of the organization. Secondly, there is the personality of the corporation, which is made by the corporate culture and the corporate strategy.

The third objective of the paper is to investigate the cluster identity beginning with the starting point of the cluster: the actors. Therefore, this objective will investigate the corporate identity of the actors inside the cluster and how they influence the formation of a cluster identity. Being actively involved in the research and development sector, marketing activities have not received that much attention by the companies. Moreover, as the cluster didn't initiate identity of its own it was impossible to investigate whether the cluster follows the theoretical framework of cluster identity formation. In turn, it had made the research more interesting in investigating, whether there is a common understanding of what the cluster stands for, so that it can further communicate this identity and foster it to all the members.

6.2. Conclusions

The current thesis aimed to introduce a new topic in the academic literature, that of cluster identity. In order to better investigate this subject, a case study has been conducted around RoboCluster. RoboCluster is a Danish robotic and automation cluster located in the Funen region. Although the cluster has a clear philosophy and strategy communicated to their members, it doesn't have any culture of its own. Therefore, it can be considered that the cluster has no identity of its own.

As a first trend identified in the research it can be mentioned the fact that the existence of a mission and a vision in a company is directly related to the number of years on the market of the company. The statement can be explained as follows. A relatively small R&D company is focusing in its first years of life more on the technological activities in the company, without allocating too many time and resources to the marketing activities. Companies, that already have experience on the market, can shift some resources from the core activities to the support activities.

A second proposition that has been developed from the research is the fact that companies that have ten or less than ten employees, micro-enterprises, are most likely not to have constructed a clear mission and vision. This can be explained by the fact that being a small company, people interact together all the time, mostly on an informal way, therefore there is no need for a written or communicated philosophy. Moreover, people that are working together, consider implicit the purpose of their work and the goals they can reach.

When studying the values of the company, there can be a third statement drawn. Apparently, companies that have not been for a long time on the market, and are still focusing its activities on the R&D side, are valuing the entrepreneurship and the technological aspects of the company. Meanwhile, companies that have been on the market for a while, and have already moved in the company's lifecycle, value other attributes like quality, people or excellence.

The stage in the life cycle of the company is also influencing the goals of the company. While companies in the entry strategy put a bigger price on the technological and development side of the business, companies that have already a steady presence on the market are aiming to get a bigger piece of the market share and become leader and well known players in the industry.

As it can be seen below, in order to better understand the previous statement, I have designed figure 19.

The second section in the empirical analysis part of the thesis was meant to investigate the opportunities that the companies can see from being part of the cluster and the impact that the cluster had on its members. As the results show, there are various reasons that companies join RoboCluster. Two major categories have been identified as being drivers for membership: network and knowledge. As it can be seen from the theoretical part, these two drivers are some of the core characteristics of clusters, as identified by Frisillo 2007.

In the first place, people join the cluster in order to interact with more people from their industry. For them it is very important to know the other player in the robotic and automation industry and to exchange ideas and knowledge. Actually, as it was also discussed in the theoretical part, knowledge sharing as well as the network, together with the actors, trust and cooperation and entrepreneurship are key elements of a cluster.

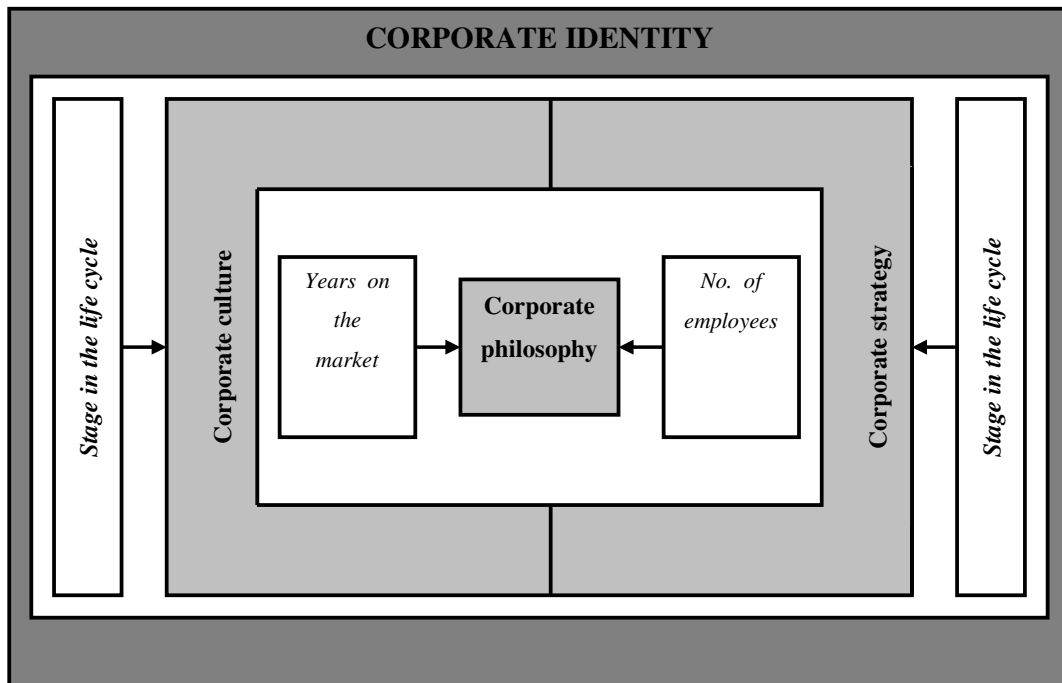


Figure 19. Factors that influence the formation of corporate identity.

The last part of the research was actually the main theme of the paper: the cluster identity. As I have already mentioned, RoboCluster has no proclaimed identity of its own. However, it was very interesting to find out whether the members can identify the same key characteristics to the cluster. As it was presented in the introduction of the cluster subchapter, the RoboCluster has grown from a young organization to a mature one. This change has also had some impact in how it should be perceived by its members. As results show, there are two different opinions regarding the identity of RoboCluster. Companies that have been part of the cluster since its beginning, associate it with traits that are common to any cluster: network, activities and financing (support).

For this companies, the cluster remains at its basic characteristics, without paying attention to the organizations a whole and what it has raised into becoming.

As opposed to the earlier conception, companies that have recently joined RoboCluster consider it as a whole organization. They see behind the basic characteristics of a cluster and the opportunities that it can bring them. RoboCluster for these companies is a professional and serious organization, which is very active and energetic in pursuing its goals. In addition, this “society”, as one interviewee called it, is filled with well-educated, nice and friendly people.

In the theoretical part, there were presented the challenges of having a cluster identity. Out of this discussion the main theme is that in order to have a cluster identity the actors need to share the same goals and values. Following the respondents’ answers in the questionnaire it can easily interpreted that companies whose values and goals are placed more on the research and development area, see the cluster as a tool in knowledge sharing and networking. While companies whose goals are softer, do see softer attributes in the cluster.

As it can be seen from the research, companies inside the cluster can be located at different stages in their lifecycle, have different experience on the market and differ in the number of employees. All these characteristics influence to a strong degree the corporate identity of the company, which in turn influence the perception that the company has on the cluster itself.

In addition, there can also be noticed a correlation between the period that the actors have joined the cluster and their perceptions of the cluster. According to the results, companies that have been part of the cluster since its beginning, still see it as having the basic characteristics of a normal cluster. Meanwhile, new joiners see more than a regular cluster in RoboCluster. They can see behind the organization and identity some traits which are only characteristics to RoboCluster and can differentiate it from the others.

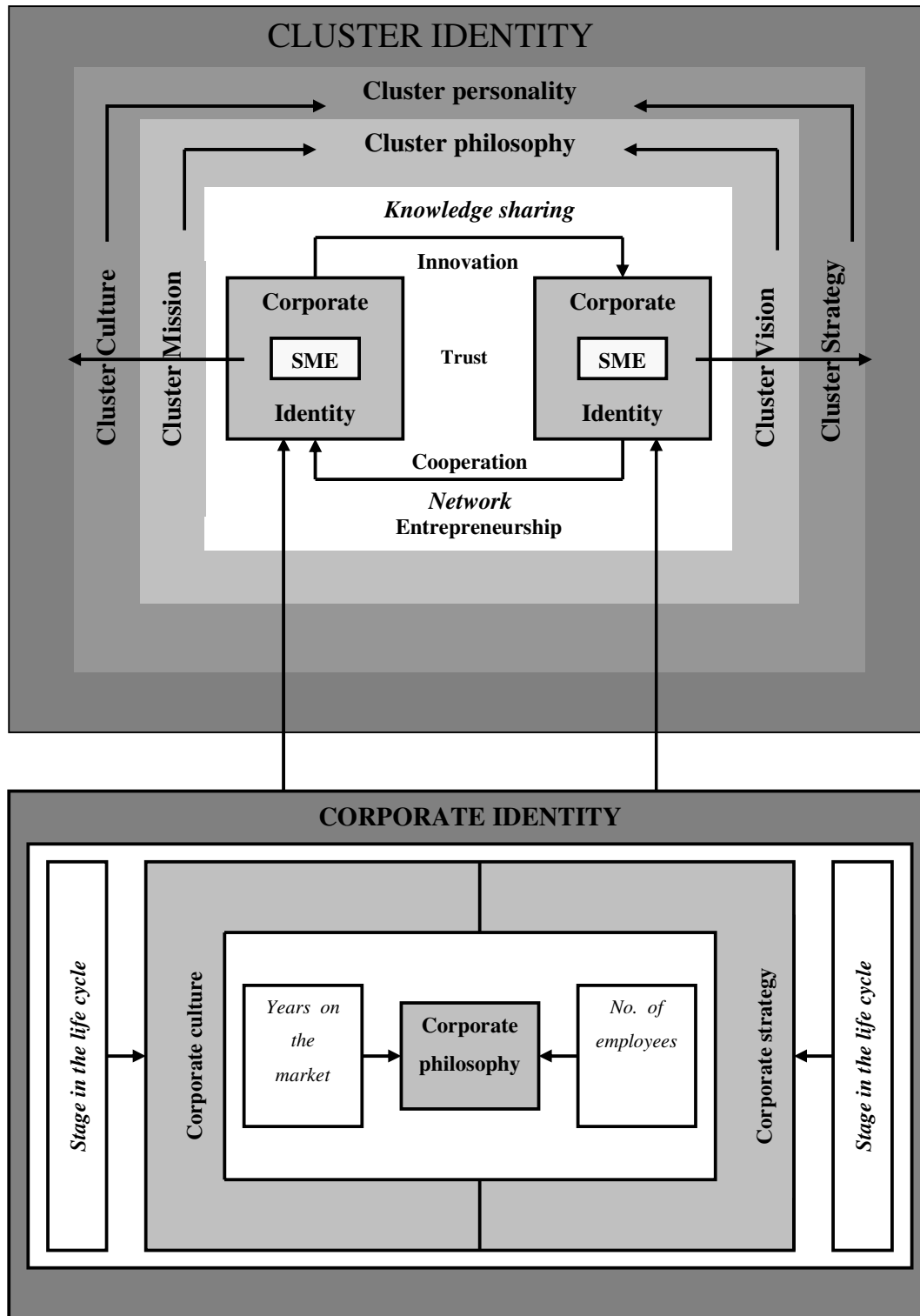


Figure 20. The creation of cluster identity.

The factors that have an influence in shaping the cluster identity is also underlined in figure 20. It can be noticed that the frame work that was extended from Balmer's approach to corporate identity, proved to be valid. Indeed, cluster identity is formed by two distinct factors: the cluster philosophy and the cluster personality. In addition, these two factors are also a merger of several factors. Firstly, cluster philosophy exists due to concentrating efforts of two other factors: cluster mission and cluster vision. Secondly, cluster personality is the sum of cluster culture and cluster strategy.

Furthermore, the characteristics of the cluster, as named by Frisillo (2007) are also validated in the study. However, there are two characteristics that stand out in importance in front of the others: knowledge sharing and networks.

The empirical work also brings new valuable findings in the construction of the cluster identity. As research shows, actors have a great influence on shaping the cluster identity. Moreover, there can be noticed a consistency in the actors' identity and that of the cluster itself. This finding has been represented in figure 20, by the arrows that go from the actors directly to the cluster identity box.

RoboCluster have recently emerged from a regular cluster, to a cluster with its own identity that can easily stand out of the crowd and compete with the other clusters. As one of the interviewees was saying, "RoboCluster is not just a bunch of people dressed in suits or dresses; it is also very active on the robotic scene". And that is one characteristic that differentiates RoboCluster from the others and creates a competitive advantage for it. RoboCluster should pay great attention to its identity. As Leuthesser & Kohli (1997) were suggesting RoboCluster should try to further reveal this identity through symbolism, behaviourism and communication. After the cluster identity can be shaped and nurtured inside the cluster, it is the turn of the marketing department to try branding this identity. As it was discussed in the theoretical chapters, branding can bring numerous benefits for the company, including international awareness, which was actually the starting point in this paper.

6.2.1. Managerial implications

The study can be a value resource to organizational managers, as well as theorists. As it can be seen from the analysis, clusters react to a great extent as companies, therefore both corporate and cluster managers can use the present study.

The study has developed a framework in the analysis of the cluster identity. This can be a starting point for future research as well as for the cluster managers in their try to create and consolidate a cluster identity.

Being part of the cluster, the actors are important pieces in constructing a cluster identity. According to the study, the actors' identities are of a great influence to the cluster identity. Cluster management should be aware that members have different opinions regarding the stage that they are in. Therefore, cluster management should expect and be able to identify different approaches from the actors, as they might pursue different opportunities inside the cluster than the others.

In addition, the study brings new insights to the corporate identity literature. Managers should be aware that their identity is specific to different phases in the lifecycle. Moreover, they should be able to identify these stages and try to form an identity that matches the phase that they are in. As there are many similarities between a regular company and a cluster, this finding can also be extended to clusters. While in their early stages they should focus first on the research and development, once they advance one step in the life cycle, they should step up to the challenges and redesign their strategies.

6.3. Further research

The empirical research for the paper was conducted on General Managers of the companies. It would be interesting to find out whether only they can share the cluster identity or the rest of the employees of the companies also share it.

The present thesis was limited to find out what the elements of the cluster identity are and whether there is a common perception of the identity inside the members of the cluster. However, the thesis has not approached the issues of nurturing the corporate identity inside the cluster and its communication to the stakeholders. Therefore, I believe that these two subjects will be an interesting input to the theory. In addition, the management of corporate identity has received great attention in the literature. With that in mind, it will also be challenging to investigate the ways in which a cluster identity can be further managed.

Last but not least, the empirical part of the paper has developed three different propositions in relation to the formation of corporate identity. According to them, the formation of organizational identity is influenced by three different factors: the experience of the company on the market, which can be translated in the number of years since its founding, the number of employees and the stage of the company in the life cycle. The testing of these hypotheses can be a subject for future academic research.

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APPENDIX 1.

Interview guide for RoboCluster Secretariat

I. Questions regarding corporate actions

1. What are the words that come into your mind when you think about the cluster?

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.....

.....

2. How will you like to be perceived as a cluster?

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.....

3. Where do you see the cluster in the next 5 years?

.....

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.....

II. Questions regarding member selection and integration

4. What are the criteria for a company to become a member of the cluster?

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5. Is there any way to integrate/introduce a new member to the cluster?

.....

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.....

6. How often do members meet/interact with each other?

.....

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.....

7. How do you communicate with the members?

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8. How is the knowledge shared between cluster members?

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.....

APPENDIX 2.

Interview Guide for companies

I. Company identification

1. When was your company founded?
2. How many employees do you have?.....
3. What is your company specialization?.....
4. How long have you been a member of the cluster?.....

II. Company identity

5. How can your corporate mission and vision be described?
.....
.....
.....
6. When you think about your company, what words come first into your mind?
.....
.....
.....
7. What are the short-term and long-term goals of your company?
.....
.....
.....

III. Impact of being a part of the cluster

8. Has your organization's goals and strategy changed during the past years? Why
and how?
.....
.....
.....
9. What opportunities does your company expect from being part of the cluster?
.....

.....

10. How does your company affiliation to the cluster impact your company?

.....

IV. Cluster identity

11. What are the phrases that describe what the cluster is like?

.....

12. What words come to your mind when you think about the cluster?

.....

13. What do you think that RoboCluster should do in order to become more performing?

.....

14. Do you have any additional comments?

.....

APPENDIX 3.

Results of the interviews

	Company A	Company B	Company C	Company D
1	2004	1981	1977	1987
2	7	20	10	32
3	Robotics and Vision	Automation & Quality Securance	Equipment for automatization, Robot components, Hydraulic cylinder, etc	Trade house of Robots
4	6 years	2 years	1 ½ years	7-8 months
5	Is not a priority, though will want to have one.	Apply modern automation technology in order to improve quality, stability, efficiency and work environment in the production industry.	No mission and vision. But it can be summed up as: <i>to deliver quality product to Danish industry for automatization</i>	To be the customer's no. 1 choice in robots and robotic solutions based on excellence in what we do.
6	<ul style="list-style-type: none"> • Very entrepreneur • Technology development 	<ul style="list-style-type: none"> • Good times being together with competent and focused people • Being with people and doing what they want to do 	<ul style="list-style-type: none"> • Technical good employees • Quality products • Excellent service 	<ul style="list-style-type: none"> • Quality • Teamwork • Hard work
7	<ul style="list-style-type: none"> • Make reference system of our technology together with important partners • Find sales channel that can handle international sales • Develop technology in packages, that can 	<ul style="list-style-type: none"> • Get the industry to acknowledge a new technology, we are working with • Make the company a well-known player in the Scandinavian industry 	<ul style="list-style-type: none"> • Be market leader for small robots in Denmark 	<ul style="list-style-type: none"> • To establish a secure customer base that guarantees a certain turnover • To become a house of excellence in Robotics

	be sold without engineers			
8	Yes it changed. At the beginning it was all about vision. But now we've realized that it is vision and robotics.	Yes it changed during the last 5 years from being a supplier of components in to becoming partners in solutions.	Yes it changed. Became technical experts in products, deliver in time, excellent service.	Yes it changed. Until 1 ½ years ago, it was a project and solution house. Now it turned into sells and service house.
9	<ul style="list-style-type: none"> • Network • Access to other competencies • New knowledge developments • International access 	<ul style="list-style-type: none"> • Opportunity to have an influence on education • Opportunity to achieve these goals 	<ul style="list-style-type: none"> • To be a member of the big family • To have a good relations with employees at RoboCluster • To discuss automatization with Robocluster • To get company promoted through RoboCluster • To get inquires through RoboCluster 	<ul style="list-style-type: none"> • No office in DK, but lots of customers. By joining RoboCluster they will have close contact to customers. • Business opportunity • Network • Bring technology
10	<ul style="list-style-type: none"> • Robotics & networks 	<ul style="list-style-type: none"> • RoboCluster and them get a very open dialog at a very high-tech level • Has openings to some industries they wouldn't get in 		<ul style="list-style-type: none"> • Offered engineering assistance to the cluster • Daily communication to members in the cluster
11	<ul style="list-style-type: none"> • Relatively close connection between many robotic companies. By 	<ul style="list-style-type: none"> • Database of a lot of robotic knowledge • Together with the SupplyNet, it 	<ul style="list-style-type: none"> • Well-known/well-educated employees involved 	<ul style="list-style-type: none"> • Very active in Robotics • Market dominant in terms of

	<p>close meaning knowing who they are, shake hands; know where they work and what they do.</p> <ul style="list-style-type: none"> • Networking 	<p>is a competence centre</p>	<p>with robots on Danish market</p> <ul style="list-style-type: none"> • Very technical (big) knowledge about robots • Organization who is following new trends in robotics • Knowledge base 	<p>lobbying Robotic solution</p> <ul style="list-style-type: none"> • Extremely friendly
12	<ul style="list-style-type: none"> • Good understanding of robotic community, • High activity • High support by regional government and to some extent national 	<ul style="list-style-type: none"> • Nice people • Good partners • Great opportunities 	<ul style="list-style-type: none"> • Professional company • Well-educated employees • Serious knowledge 	<ul style="list-style-type: none"> • Lobbyism • Energy that RoboCluster is pursuing its goals
13	<ul style="list-style-type: none"> • More known • Become national – not only be linked with SDU, but also work with Aalborg, Aarhus and Copenhagen • Get more projects 	<ul style="list-style-type: none"> • Increase in awareness by marketing in order to make known their opportunities. • By using the supply net better they will get more opportunities 		<ul style="list-style-type: none"> • Cannot say any opinion, as the time in the cluster is short