Exploring organizational agility and the added value of human resources:

Creating organizational agility by using individual competencies and organizational practices

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Abstract

The goal of this explorative research is to gain more insight into the profile of individual competencies that are essential to operate in agile organizations and which organizational practices are implemented in order to develop these individual competencies in the context of organizational agility. Besides, it will discuss how those competencies and practices are formed in the setting of high or low degrees of institutional pressure the organizations experiences from the environment. Since there is little literature focusing on the connection between individual competencies and organizational agility, this research will contribute to a better understanding of this relationship. Therefore, this study has the objective to contribute to additional theory development in the rather new research area of agility. More explicit, this research attempts to formulate hypotheses which could be tested in future research.

Data was collected via semi-structured interviews across five different cases and via document analyses. The data was analyzed via systematic coding and cross-case analysis. The findings show that employees are evaluated as an important asset within the organization and that they make a difference in the organizational performance. Hence, all cases indicate that individual competencies of their workforce have a significant contribution to organizational agility. The examined cases illustrate a relative similarity to a number of competencies that are related to the characteristics of agility, namely: flexibility, adaptiveness, result orientation, problem solving, entrepreneurship, innovativeness, stress resistance, craftsmanship and troubleshooting. Commitment and intrinsic motivation are illustrated as essential components to encourage and generate specific behavior towards organizational agility. In order to develop or obtain needed individual competencies for agility, four practices could be implemented: staffing, training and development, performance management and rewards and recognition. Moreover, the findings show that the influence of the institutional mechanisms on the implementation of the organizational practices for competence development depends on the response chosen by the organization to these pressures. Based on the findings, this paper provides inspirational notions for practitioners, as well as suggested hypotheses which can serve as input for future research in the concept of organizational agility.

Keywords: Dynamic environment, organizational agility, Resource Based View, individual competencies, organizational practices, institutional mechanisms.

Preface

This paper is written as a final product for the Master program of Human Resource Studies at Tilburg University. The subject of this paper is exploring organizational agility with a special focus on the human resource value in order to survive in a dynamic environment. Numerous academic literature has provided me new and useful insights which led to the completion of this paper.

Although writing this paper was an individual activity, it would not have been possible without the help of several people. I would like to take this opportunity to thank the persons who have supported me while conducting this research. People who provided me with valuable feedback, useful insights and challenging questions. First, I would like to thank the supervisor, drs. M. Nijssen for his help and guidance during this process, for his effort in finding key informants for this study and for providing me with useful literature. Furthermore I would like to thank my family and friends for their support and trust, the key informants for their time and information and last, but not least, my fellow student M. Hanssen for the brainstorm sessions and prof. dr. J. Paauwe for his effort as the second reader of this paper.

Janneke van Stekelenburg
March 2012

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1. Introduction

Organizations today operate in a business environment where time is a key resource and competitiveness a constantly moving target (Sherehiy, 2008; Qin and Nimbhard, 2010). Organizations which operate in a dynamic environment face the inevitability of constant change (Breu, Hemingway and Strathern, 2001). The problem about how organizations can successfully deal with an unpredictable and constantly changing environment has been a popular topic in both manufacturing and academic fields for a few decades. Many different solutions were proposed, but the notion of organizational agility is the most dominant and popular key lately (Sherehiy, 2008). Organizational agility is considered as a necessary dynamic capability for organizations operating in a dynamic environment. In order to survive and thrive in a dynamic environment, agile organizations need to possess the capacity to react quickly to ever changing circumstances (Brown and Agnew, 1982). Nijssen and Paauwe (2010) suggest that organizational agility consists of three elements that contribute to survival in dynamic environments, namely: a scalable workforce (in terms of quantity and quality), fast organizational knowledge creation and a highly adaptable organizational infrastructure. Besides that agility is an essential solution for surviving a dynamic environment, there is still one top question on managers' minds (Van Assen, 2000); which resources do organizations need in order to achieve organizational agility? There are a lot of solutions for this question, but one possible answer could be; using the added value of human resources.

Organizational agility offers instruments to "respond quickly to changing markets, to produce high quality products, to reduce lead times and to provide a superior customer service, in a dexterous way" (Van Assen, 2000, p. 143). In this perspective, Dyer and Shafer (1998, p. 6). discuss a "growing interest in an entirely new organizational paradigm – one that views organizational adaption not as a one-time or even periodic event, but as a continuous process. That paradigm is "Organizational Agility". In other words, organizational agility could be evaluated as a constant strategy/dynamic capability that allows to fit and cope with environmental dynamism. There are different ways to organize organizational agility, but several theorists argue that the workforce of an organization is seen as a main driver and key source for organizational agility (Kerr and Jackofsky, 1989; Milliman, Von Glinow and Nathan, 1991; Wright and Snell, 1998). For instance, the Resource Based View of Barney (1991) argues that firm-specific capabilities and internal resources are the fundamental elements of success, whereas the human resources are seen as the most important asset within an organization (Becker and Huselid, 2006; Breu et al., 2001; Paauwe, 2004). As a result, agile organizations are mainly dependent on the capabilities and competencies of its workforce, both managers and workers, to learn and progress with change (Spearman and Hopp, 1996). Consequently, when considering human resources as the most important assets in an organizations asset structure, we need to think about the capability to reconfigure and transform the workforce to business needs with the result to create organizational agility. Therefore, a workforce is expected to exploit competencies by proactively innovating their skills and capabilities based on organizations' needs in order to adapt to diverse and changing requirements (Breu et al., 2001). To obtain this objective, it is essential to identify a set of skills, abilities and capabilities that an employee is supposed to have in order to operate in an agile organization (Becker and Huselid, 2006; Breu et al., 2001; Paauwe, 2004). The need for a certain set of skills, abilities and capabilities can be recapped in the need for individual competencies. According to recent literature, it is possible to define a set of individual competencies that a workforce ought to possess in an agile organization. Plonka (1997) for instance, examines the contribution that employees can make to improve workforce capabilities in the lean and agile manufacturing environments and indicates some important characteristics that those employees supposed to have in order to be employed in an agile organization: 1) attitude towards learning and self-development; 2) problem-solving ability; 3) being comfortable with change, new ideas, and new technologies; 4) the ability to generate innovative ideas, and 5) accepting new responsibilities. Besides, Dyer & Shafer (2003) state that achievement of workforce agility requires three main competencies; being proactive, adaptive and generative.

Overall, this research focuses on individual competencies which are needed in order to operate in agile organizations, so that - besides the three elements of organizational agility - the added value of human resources could be used to empower the dynamic capability organizational agility.

Since organizational agility is seen as a constant dynamic capability that copes with market dynamism and individual competencies are evaluated as an important source for achieving organizational agility, it is essential to implement organizational practices across the organization in order to develop and retain the required individual competencies for agile organizations (Wright and Snell, 1998). In the field of strategic human resource management (HRM), scholars emphasize "the pattern of planned human resource deployments and activities intended to enable the firm to achieve its goals," (Wright & McMahan, 1992, p. 298). Reflecting on this research, it could be argued that organizational practices create the possibility that individual competencies are developed or aligned to the business need of being agile as an organization. This means that the organizational practices in this study are aimed at developing the individual competencies that lead to the dynamic capability of organizational agility. This requires organizational practices that concentrate on strategy formulation and planning (Dyer and Erickssen, 2006), such as staffing – recruiting, selecting, screening, developing, transferring and retiring personnel for the jobs which are created by an organization. Or organizational practices that develop individual competencies which enable rapid and easy transitions from one aligned human resource configuration to another, for example competence based training or job rotation (Dyer and Erickssen, 2006).

Overall, there exist many literature about the development of individual competencies in general, but there is not much literature known that focuses on the organizational practices that an organization could implement in order to gain the individual competencies for functioning in agile organizations. For this reason, this research hopes to find a set of organizational practices that would optimize the required individual competencies with the result to achieve organizational agility.

To summarize, in this research two elements are central; individual competencies and organizational practices. This research emphasizes on individual competencies which are needed in agile organizations and the organizational practices that make a contribution to a better development of these competencies.

Besides exploring the above mentioned aspects, this research will investigate and discuss the institutional setting in relation to the implementation of these organizational practices and more importantly the response of organizations to these contexts. Sometimes, organizations appear to implement organizational practices that do not seem to match with the objective of coping with a dynamic environment. Paauwe (2004) explains this situation by stating that contingency factors restrict the leeway of both organization and management. Institutional theory offers an explanation for organizational action within this leeway (Dacin, Goodstein and Scott, 2002; Paauwe, 2004, Pursey, Heugens and Landers, 2009). The strategic choice and human agency provide organizations several alternatives to cope with institutional pressures varying from active resistance to passive response (Oliver, 1991). Boon, Paauwe, Boselie and Den Hartog, (2009) build up three types of strategic responses based on Oliver (1991) and Mirvis (1997): conformist, innovative and defiant.

In conclusion, this research aims to identify which individual competencies are needed to operate in agile organizations (individual level), to identify present organizational practices in the creation of these individual competencies (organizational level) and to determine in what way institutional contexts facilitate or hinder organizations in achieving and developing individual competencies. Overall, the main focus of the research is to answer three research questions 'What kind of individual competencies help to achieve organizational agility?', 'Which organizational practices are present in agile organizations in order to achieve and develop individual competencies, which contribute to organizational agility' and 'In what way do institutional mechanisms facilitate or hinder the creation of individual competencies in agile organizations?'.

1.1 Overview of the paper

Chapter one introduces the concepts regarding organizational agility and describes the problem statement of this research, which includes the two central research questions. Chapter two deal with the different concepts more in-depth and supports the theory from various fields of literature. Organizational agility, environmental dynamism and institutional pressures are discussed, and the concept of Resource Based View that includes individual competencies and organizational practices is operationalized. To give a direction to the research, a heuristic framework is developed, and three propositions are formulated based on the relevant academic literature. Chapter three discusses the methodological aspects of this study, including the research set-up, the sampling strategy, the data collection and analysis. Chapter four provides a brief summary of the research findings. Chapter five offers a conclusion and discussion about this research. The conclusion will focus on the degree to which the findings match with the expectations as presented in the propositions and whereby the discussion part will give a critical reflection on the findings and the conclusions. Besides, possible explanations for the (lack of) findings, as well as possible alternative explanations and critical notes are given. Chapter six focuses on the limitations of this research and offers recommendations for future research. This is followed by chapter seven, which shows the implications of this research for practice. Figure 1 illustrates the structure of this study.

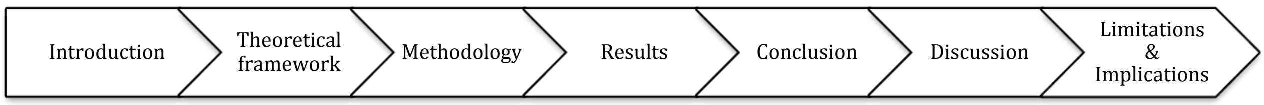

Figure 1. Overview paper

1.2 Problem statement

This study is designed in order to develop new theory. The goal of this explorative research is to gain more insight into the required individual competencies and organizational practices in the context of organizational agility. Besides, it will discuss how this is formed in the setting of high or low degrees of institutional pressure the organizations experiences from the environment. Since there is little literature focusing on the connection between individual competencies and organizational agility, this research hopes to make a contribution to a better understanding of this relationship. As a result, this study has the objective to contribute to additional theory development in the rather new research area of agility. More explicit, this research attempts to formulate hypotheses which could be tested in future research. Besides, the outcomes of this study are expected to be of interest for organizations who operate in a dynamic environment so that they have an insight in the main drivers of agility, which might help improve their position and consequently increase the chances of survival. Overall, in this study three research questions are central:

What kind of individual competencies are needed to contribute to organizational agility?

Which organizational practices are present in agile organizations that help achieve and develop individual competencies, which contribute to organizational agility?

In what way do institutional mechanisms facilitate or hinder the creation of individual competencies in agile organizations?

2. Theoretical framework

The following paragraph will describe the theoretical foundation of this study. This research is based on several theoretical notions which will be used to form the context of this study and to establish the relation between the presented concepts. Based on the theoretical notions, the propositions and the heuristic framework are presented.

2.1 Dynamic environment

This research focuses on organizations which operate in a dynamic environment. As mentioned in the introduction, organizations today operate in a business environment where time is a key resource and competitiveness a constantly moving target (Sherehiy, 2008; Qin and Nimbhard, 2010). Consequently, organizations which operate in a dynamic environment faces the inevitability of constant change (Breu et al., 2001). Sharifi and Zhang (1999) even believe that turbulent times and uncertainty in the business environment have been recognized as the reason of most failures in industry. For this reason, numerous research and management studies focus on change and uncertainty in the business environment (Sharafi and Zhang, 1999). Overall, it can be concluded that an organization is constantly influenced by various external forces from the environment. Before distinguishing dynamism, first it is essential to determine what is meant by the environment.

In this research the environment will be defined as an organizational field, which refers to "those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies and other organizations that produce similar products and services" (DiMaggio & Powell, 1983, p. 148). Because an organization is constantly influenced by various external forces from its environment, it is interesting to investigate how organizations survive in this dynamic environment. Therefore it is relevant to conceptualize the level of dynamism in the organizational field.

The study of Brown and Eisenhardt (1997) shows that the level of dynamics within an environment is caused by changes in both market pressures and institutional pressures. Ansoff and Sullivan (1993) describe the level of dynamism by four features; (1) the complexity of proceedings which occur in the environment, (2) the understanding of the successive proceedings, (3) the rapidity with which the proceedings develop after being observed and (4) the visibility of the consequences of the proceedings. The four features of Ansoff and Sullivan (1993) can be summarized into the definition of Dess and Beard (1984) in which they explain what the level of environmental dynamism is; the level of dynamism can be seen as the degree of change that is difficult to predict, causes uncertainty and is challenging to implement within an organization process. Ansoff and Sullivan (1993) acknowledged that dynamism is concerned with all changes, which have an impact, which are hard to predict and which occur with a certain frequency. Important to note, Duncan (1972) adds to this definition that the degree of change is determined by how an organization experiences and perceives the level of dynamism. In other words, the research of Duncan (1997) admits the important role to what extent an organization perceive the uncertainty in a dynamic environment. For instance, when an organization perceives the environment as dynamic, it tries to find at least a minimum number of solutions by which it can cope with these perceived dynamics in order to survive in these dynamic environments. Hence, it is important to determine if an organization is perceiving a level of dynamism and how it copes with this degree of uncertainty.

Taking the above in consideration, the following conceptualization of environmental dynamism in this research could be defined as: 'the degree of change that is hard to predict, which has a high frequency and significant impact that increases perceived uncertainty for key organizational members'.

After having discussed the concept of environmental dynamism, now the focus is on organizational agility which is seen as a dynamic organizational capability in this research.

2.2 Organizational agility

In the beginning of the 1990s, a new way of coping with dynamic environments originated. This new concept was called the "organizational agility" concept. Organizational agility is a term that has many different definitions in literature (Bottani, 2009; Yusuf, Sharhadi and Gunasekaran, 1999). The inventors of the ''agility'' concept at the Iacocca Institute, of Lehigh University (USA) described the term as: ''A manufacturing system with capabilities (hard and soft technologies, human resources, educated management, information) to meet the rapidly changing needs of the marketplace (speed, flexibility, customers, competitors, suppliers, infrastructure, responsiveness)" (Yusuf et al., 1999, p. 36). However, in literature there exist many more equivalent descriptions of the organizational agility concept. For instance, Reed and Blunsdon (1998) describe organizational agility as an organization's ability to align its internal structures and processes in response to changes in the environment. Yusuf et al. (1999) proposed that organizational agility can be seen as the successful application of competitive bases such as innovation, flexibility, speed and quality by the means of the implementation of reconfigurable resources and best practices of knowledge-rich environment to offer customer-driven products and services in a rapidly changing environment. Furthermore, the agile-based competence management research of Van Assen (2000) suggests that organizational agility is a dynamic capability to respond reactively or proactively to various demands from changing environments.

It can be concluded that various definitions of agility have been brought forward and consequently there is still no overall, widely accepted definition of organizational agility (Bottani, 2009; Yusuf et al., 1999). Comparing the different definitions and views of "agility", it can be concluded that all descriptions emphasize the speed, flexibility and the effective response to change and uncertainty as the primary qualities of an agile organization (Gunasekaran, 1999; Kidd, 1994; Sharifi and Zhang, 1999; Yusuf et al., 1999). By all means, academics suggest that agility has an organizational orientation (e.g. Christopher, 2000; Conboy and Fitzgerald, 2004) and is applied collectively throughout the firm. It can be considered as an organizational philosophy (Conboy & Fitzgerald, 2004). According to this perspective, numerous theorists stated that surviving in a dynamic environment is due to the fact that firms need a minimal level of agility; the ability to interact on unpredictable changes. Overall, organizational agility is hypothesized to be shaped by three organizational processes: (1) workforce scalability, (2) fast organizational knowledge creation and (3) reconfiguration and transformation of the organizational infrastructure (Nijssen and Paauwe, 2010). First, workforce scalability refers to "the capacity of an organization to keep its human resources aligned with business needs by transitioning quickly and easily from one human resources configuration to another and another, ad infinitum" (Dyer and Erickssen, 2006, p.11). In other words, workforce scalability refers to the organizations' capacity to compensate the environments unpredictability by creating multifunctional staff, by recruiting extra talents or letting go redundant employees. By doing so, an organization has the opportunity to become more flexible within their human resources and become capable to respond more quickly to the changes within their environment; achieving organizational agility (Dyer and Erickssen, 2006). Dyer and Erickssen (2006) distinguish these human resource configurations into four dimensions: (1) headcount (the number of full-time equivalents), (2) competence mix (how employees' knowledge and skills are spread), (3) deployment pattern (workforce assignments across organizational and/or physical locations) and (4) employee contributions (organizational value of the performing tasks).

Second, organizational knowledge creation refers to the organizations' knowledge reservoir, "the capacity to constantly create, adapt, distribute and apply knowledge‟ (Dyer and Shafer, 2003, p.14). In other words, organizational knowledge creation stands for having the right knowledge at the right time in order to respond proactive to unpredictable circumstances in the dynamic environment. Thereby, organizations should manage the constant creation, adaptation, distribution and application of this knowledge (Nijssen and Paauwe, 2010, p. 16) and should make knowledge available that is created by individuals trough experience and knowledge development, so it could be connected to an organization's knowledge system (Nonaka and Von Krogh, 2009, p. 635)

Finally, reconfiguration and transformation of the organizational infrastructure discuss the coordination and integration of organizational activities that facilitates workforce scalability (Dyer and Ericksen, 2006; Dyer and Shafer, 2003). Organizational design, business processes and supporting technologies are the three elements that involves organizational infrastructure (Dyer and Shafer, 1998). Thereby identify Dyer and Shafer (2003) two different types of perspectives; (1) fluid organization design whereby little hierarchy exists and boundaries are minimal and (2) flexible core business processes that involve internal processes as guiding principles and stimulates employee initiative.

In order to achieve a level of agility, it is suggested that organizations should implement these three processes in such a way that it fits their current setting (Huang, 2009; Nelson and Winter, 1982). By doing so, organizations are enabled to respond faster on changes and thus gain competitive advantage which leads to survival in the organizational field. According to this reasoning, this paper assumes that the presence of organizational agility will lead to survival within a dynamic environment .

Building on the above characteristics of agility and on the previously discussed conceptualization, this paper summarizes and outlines organizational agility as "the ability to adapt to or seize the opportunities presented by changes in the (environment of the) organization in a timely, speedy, effective and cost efficient manner to achieve a series of temporary competitive advantages leading to survival in a dynamic environment".

2.3 The added value of HR

According to Gunasekaran (1999), the overall goal of firms to generate organizational agility is to achieve and sustain competitive advantage in order to survive in a dynamic environment. In the study of Nijssen and Paauwe (2010) the focus is on the agility concept at an organizational level and is hypothesized to be shaped by the three organizational processes as mentioned before. However, this study believes that besides those three elements for agility on an organizational level, the human resource factor (i.e. agility on an individual level) also plays a key role within the process of achieving organizational agility.

Teece, Pisano and Shuen (1997) established the dynamic capabilities framework to examine how and why certain firms achieve and sustain competitive advantage in dynamic environments. The dynamic capabilities framework discusses the combinations of competencies and resources that can be developed, organized and protected as sources of competitive advantage. By focusing on the dynamic capability of an organization, the research on achieving sustainable competitive advantage takes an inside-out approach i.e. whereby the starting point of the strategy making process is the organization's internal environment (Grant, 1996). The resource based view (Barney, 1991) is a dominant theory in the inside-out approach literature, emphasizing firm-specific capabilities and internal resources as the fundamental elements of success. In other words, this business research perspective seems to be suitable for providing directions and guidelines for agile management, resulting in a phenomenon called competence-based competition (Van Assen, 2000). According to the resource based view (RBV), internal resources that meet the demands of scarcity, difficult to imitate, hard to replace and/or economically valuable make a contribution to the distinctiveness of an organization. One element of these internal resources, and the most important in this research, is the workforce within an organization. In essence, by using the RBV some consensus might be achieved on the areas within the human resource architecture in which sustainable competitive advantage could be realized. Figure 2 provides a graphical view of these characteristics.

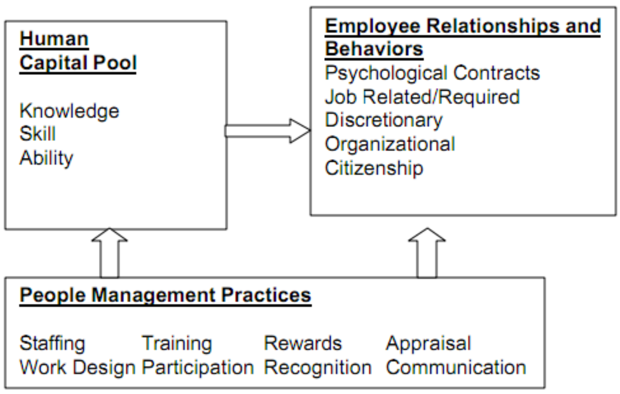

Figure 2. Characteristics of the Resource Based View (Dunford, Snell and Wright, 2001)

In general, the RBV conceptualizes the following aspects; (1) human resources are the most important asset of an organization because of their uniqueness, scarcity, economic value and difficulty to imitate, (2) a human capital pool with a stock of skills, abilities, knowledge and behaviors which are important in achieving sustainable competitive advantages, (3) employees are controllable and developable in such a way to respond to the desirable or necessary internally or externally initiated changes, in order to achieve sustained competitive advantage (Barney, 1991) and (4) human resource systems can contribute to sustained competitive advantage through facilitating the development of individual competencies that fit the organizations mindset and that are hard to compete with (Barney, 2001; Reed and DeFillippi, 1990). Reproducing from the RBV, two important aspects are needed that contribute to organizational agility, namely; individual competencies and organizational practices (Breu et al., 2001; Dyer and Erickssen, 2006). Since it would make a difference whether an employee is capable to participate on the dynamics of the organizations environment, organizations should focus on individual competencies of the employee (Breu et al., 2001; Dyer and Erickssen, 2006). In short, the individual competencies are focusing on the individual level, it ensures that employees possess a profile of required competencies so that they are able to operate in agile organizations and can be transferred dynamically through the organization. By doing so, an organization has the opportunity to become capable to respond more quickly to the changes within their environment; achieving organizational agility (Dyer and Erickssen, 2006). In order to develop individual competencies that are aligned to the business needs (e.g. being agile), organizations could manage this expansion in capabilities by introducing fitting organizational practices. These organizational practices are focusing on the organizational level, whereby an organization deploys practices in such a way that workforce alignment can be reached and obtained. In other words, organizational practices create the possibility to align or complete individual competencies to the business need of being agile.

As mentioned in previous paragraph, organizational agility consist of three elements. This research specifically concentrate on individual competencies and organizational practices that are present in agile organizations. However, it is expected they would be in line and contribute to the three elements of Nijssen and Paauwe (2010) consequently it will influence organizational agility with the result on the survival in a dynamic environment.

In the following two paragraphs, the concepts of individual competencies and organizational practices are described in more detail. Furthermore, we will discuss the relation with organizational agility and the synergy between these two factors.

2.4 Individual competencies

Accordingly, the success of an agile organization emerges in cooperation with the strategic use of individual competencies (Breu et al., 2001; Dyer and Erickssen, 2006). The strategic use of individual competencies can be achieved in two different ways. The first option is to align individual competencies to the business strategy which emerge from environmental needs. By doing so, organizations scan their external environment and select needed competencies in order to achieve competitive advantage for that period of time. Teece et al. (1997) describe this process as "scan the environment, evaluate markets and competitors, and to quickly accomplish reconfiguration and transformation ahead of competition" (p. 520). However, research has shown that achieving this type of fit is not always desirable. As Lengnick-Hall and Lengnick-Hall (1988) stated: “a focus on maximizing fit can be counterproductive if organization change is needed or if the firm has adopted conflicting competitive goals to correspond to a complex competitive environment” (p. 460). Therefore, a second option is to align individual competencies to the dynamic capabilities of an organization (e.g. being agile). Paauwe (2004) discusses a way of modeling whereby HRM can be used as an enabler for a range of strategic options. This model does not take the business strategy as a starting point but shows that the modeling of HRM must meet criteria of economic and relational rationality. Advantages of ethical HRM will be that employees have a willingness to trust management, willingness to change and more room for maneuver for management. This is a better starting point for implementing change. This is especially important in order to become an agile organization, that needs flexibility and adaptability. For instance, a higher degree of employees' trust and willingness to change means a better starting point for implementing change and different strategies. In conclusion, the modeling of Paauwe (2004) provides a unique combination of achieving economic and relational rationality that will lead to an agile organization that creates room for the parties involved. By using this strategy an organization is focusing more on the long term and tries to align internal resources to organizational agility in order to achieve a strategy that is suitable for multiple and changing situations. Wright and Snell (1998) argued this perspective by stating "In a dynamic, unpredictable environment, organizations might achieve this by using organic HR systems that promote the development of a human capital pool possessing a broad range of skills and that are able to engage in a wide variety of behavior" (p.758). Given this perspective, this research focuses on the second perspective of strategic use of individual competencies.

In the process of aligning individual competencies to the organizational capability "being agile as an organization", it is concluded that the workforce within an agile organization is expected to be: ''a highly skilled, technologically competent and adaptable workforce that can deal with non-routine and exceptional circumstances'' (Youndt, Snell, Dean and Lepak, 1996). Consequently, workforces in agile organizations have been claimed to concentrate on skills by proactively innovating their skills and having the required competencies based on the needs of the organization in order to adapt to diverse and changing requirements (Breu, et al., 2001; Prahalad and Hamel, 1990; Yusuf et al., 1999). To obtain this objective, it is essential to identify the set of skills, abilities and capabilities that an employee is supposed to have in order to create the ability to operate in an agile organization (Becker and Huselid, 2006; Breu et al., 2001; Paauwe, 2004). The need for a certain set of skills, abilities and capabilities can be recapped in the need for individual competencies. Individual competencies describe "a relation between requirements placed on a person or self-created requirements and these persons' skills and potentials to be able to meet these requirements" (Reinhardt and North, 2003, p. 1374). Additionally, Hoekstra and van Sluijs (2007) state that individual competencies involve expertise and behavioral repertoire. Expertise refers to the combination of knowledge, understanding and crystallized experiences which are useful in given standard features of a problem or task (Hoekstra and van Sluijs, 2007). Expertise requires a so called “fine tuning” that emerges in behavioral repertoires. Behavioral repertoires are an adaptation to a certain situation and involve behavior, attention and emotion that are useful in changing contexts or situations in which a task should be completed. Hoekstra and van Sluijs (2007) state that several other researchers use different definitions of an individual competency, but the essence is similar. The essence of an individual competency in definition includes the following six features (Hoekstra and van Sluijs, 2007): (1) a latent ability of an employee, (2) to effectively perform, (3) in a particular task- or problem situation, (4) that is objectively observable and could be assessed, (5) it is shaped by a combination of expertise and behavioral repertoire and (6) can be attained by learning in some extent and aimed at development. Finally, Hoekstra and van Sluijs (2007) noted that individual competencies - expertise and behavioral repertoire - are developed uniquely per person and are inimitably formed by that person. Given the definition of Hoekstra and van Sluijs, Mulder (2001) goes more in-depth and examines the relationship between behavior and competencies of individuals in order to clarify that these two elements differ. Mulder (2001) explains that a competency is considered as a condition for behavior. More specific, a competency is the ability to activate behavior that leads to a preferred result. A small overview of principles in defining the concept of competencies by Mulder (2001), is presented in appendix A. Taking the above in consideration, the following conceptualization of individual competencies within this research could be defined as: “the set of identified skills, knowledge and abilities that directly and positively impact the effective performance and success of an employee. In summary, it is something someone is good at” (Hoekstra and van van Sluijs, 2007).

Now the construct of individual competencies is clearly defined, this research will continue by determining what kind of individual competencies are needed in order to function in an agile organization. According to recent literature, it is possible to define a set of individual competencies that a workforce ought to possess in order to operate in an agile organization. Plonka (1997) for instance, mentions some important elements for a workforce which function in an ever-changing environment: 1) attitude toward learning and self-development; 2) problem-solving ability; 3) being comfortable with change, new ideas, and new technologies; 4) the ability to generate innovative ideas, and 5) accepting new responsibilities. Moreover, Dyer and Shafer (2003) state that achievement of workforce agility requires three main competencies; being proactive, adaptive and generative. A short definition of each competency is given in figure 3.

Be Proactive	Be Adaptive	Be Generative
Initiate Actively search for opportunities to contribute to organizational success and take the lead in pursuing those that appear promising Improvise Devise and implement new and creative approaches to pursuing opportunities and dealing with threats	Assume Multiple Roles Perform in multiple capacities across levels, projects, and organizational boundaries – often simultaneously Rapidly Redeploy Move quickly from role to role Spontaneously Collaborate Engage often and easily with others with a singular focus on task accomplishment (and disengage just as easily when contribution is no longer needed)	Learn Continuously pursue the attainment of proficiency in multiple competency areas, eschewing over-specialization and complacency Educate Actively participate in the sharing of information and knowledge through the organization, as well as with its partners and collaborators

Figure 3. Agility-Oriented Mindset and Behavior (Dyer and Shafer, 2003)

Besides these two visions of individual competencies, Hoekstra and van Sluijs (2007) provide in their book a list of more general recognized individual competencies. This list is presented in appendix B. Moreover, van Assen (2000) distinguishes ten basic individual competence attributes that a workforce within an dynamic environment should possesses. These basic individual competence attributes are presented in appendix C.

Given the numerous existing competencies in literature, the core problem is that everyone possesses - at least at a minimum level - these basic attributes of individual competencies (Hoekstra and van Sluijs, 2007). While several researchers try to make a first step to sketch a profile of individual competencies for agility, there is still no widely accepted profile of individual competencies that are useful or required for only these individuals that operate in an dynamic environment and which are expected to be agile. However, based on the above mentioned literature a combination of the most important individual competencies for agile organizations can be assumed, see table 1.

Table 1. Overview about how the combination of individual competencies for agility is set up

Van Assen (2000)	**Hoekstra and van Sluijs (2007)**	**Plonka (1997)**	**Dyer and Shafer (2003)**	**Competencies for agility**
Innovation	Creativity	The ability to generate innovative ideas	Generative	**Innovative**
Information retrieval	Learning orientation	Attitude toward learning and self-development		**Learning orientation**
Information relaying	Learning orientation	Attitude toward learning and self-development		**Learning orientation**
Cooperation	-	-	-	**-**
Independent functionality	Entrepreneurship	Accepting new responsibilities		**Entrepreneurship**
Initiative	Result orientation / proactive		Proactive	**Result orientation / proactive**
Willingness to change and improve	Flexibility	Being comfortable with change, new ideas, and new technologies	Adaptive	**Adaptive**
Service sensitivity	-	-	-	**-**
Problem solving	Problem solving / risk awareness	Problem-solving ability	Generative	**Problem solving**
Stress resistance	Planning (prioritizing)	Being comfortable with change, new ideas, and new technologies		**Stress resistance**

By constructing the combination of individual competencies for agility, the individual competence attributes as proposed by Van Assen (2000) serve as a basis since these individual competencies focus especially on the dynamic environment in which organizations today are operating in. However, other individual competence attributes as mentioned above may be denoted as well, since their significant affect for acquiring organizational agility (Dyer and Shafer, 2003; Hoekstra and van Sluijs, 2007; Plonka, 1997). More specific, in the overview about how the combination of individual competencies for agility is set up, each competence attribute is linked to an alternative competency of Van Assen (2000) in order to complete the combination for individual competencies for agility. As presented in the overview, two competencies of Van Assen (2000) are excluded from the overall combination: cooperation and service sensitivity. Cooperation could be defined as the degree to which an individual is able to cooperate with other individuals and business systems (Van Assen, 2000). Service sensitivity could be defined as the degree to which an individual is service sensitive (Van Assen, 2000). In my opinion both competencies do not contribute to the process of achieving organizational agility since these competencies could be evaluated as more standard individual competencies which could be useful in more industries or tasks and not specific in dynamic environments. For instance, an employee working at a municipal service should be service sensitive to customers/clients but the environment is not seen as dynamic, because of standard rules and standard actions. Or someone working in a kitchen should cooperate with colleague cooks in order to prepare a nice meal for guests. However, their work environment is not evaluated as dynamic, because of a standard menu, standard ingredients and a standard work processes. Moreover, concerning these two competencies we do not see a comparison and overlap in relation to the other presented competencies (of Dyer and Shafer, 2003; Hoekstra and van Sluijs, 2007; Plonka, 1997). Given this reasoning, it is decided to excluded these competencies in the overall combination of individual competencies for agility. Overall, the final and complete combination offers seven individual competencies for agility which will be projected in this study, see table 2.

Table 2. Overview of the seven individual competencies for agility

Individual competency	
Problem solving	Identifying (potential) problems / issues and solve this independently or in collaboration with others.
Learning orientation	Pay attention to new information, absorb this information and apply effectively.
Adaptive	When problems or opportunities arise, if necessary, change own behavior style in order to achieve a stated goal.
Innovative	The degree to which an individual initiates, implements, realizes or early adopts change, improvement and renewals.
Stress resistance	The degree to which an individual is resistant for stress.
Entrepreneurship	Identify and convert opportunities into strategies and improvement or renewal activities that contribute to better corporate performance.
Result orientation / proactive	Actions and decisions towards the actual realization of expected results. Think ahead.

Based on the previous mentioned theoretical notions, the first proposition could be drawn:

Proposition 1: In order to operate in an agile organization, the following individual competencies are required: problem solving, learning orientation, adaptive, innovative, stress resistance, entrepreneurship and result orientation.

Nijssen and Paauwe (2010) suggest that organizational agility consists of three organizational competencies that contribute to survival in dynamic environments, namely: a scalable workforce (in terms of quantity and quality), fast organizational knowledge creation and a highly adaptable organizational infrastructure. As mentioned before, this research assumes that - besides the three elements of organizational agility - individual competencies plays a key role in creating organizational agility. In other words, individual competencies are needed to fulfill the implementation of the three elements for organizational agility. For example, in order to switch the workforce across different departments in periods of high amount of work (scalability), the employee should be innovative and adaptive (competency) in order to achieve a transfer of this reconfiguration. In summary, each element of organizational agility is accompanied by a particular individual competency. Given this perspective, it is expected that the proposed individual competencies could be seen as a synergy between- and should have an overlap with the three elements for organizational agility. A short overview of this synergy is presented in table 3. Important to note, this overview is based on own insight and input from the study of Nijssen and Paauwe (2010).

In conclusion, in this research the focus is on the value of the human resource, assuming that when the workforce of an organization possessed of a required profile of individual competencies which allows fast modification, an organization become more agile within their dynamic environment because their human resources could be deployed better to business needs. More specifically, it is expected that the workforce possesses the seven proposed individual competencies and that these provide instruments in order to cope in an agile organization.

Table 3. Synergy between individual competencies and the three organizational agility-competencies

Individual competency for agility	Workforce scalability	Fast organizational knowledge creation	Organizational infrastructure
Problem solving	Problem solving empowers risk awareness which is important to oversee strengths and opportunities for a better workforce alignment.	Trough experimentation, new knowledge could be applied.	Flexible core business processes or a fluid organization design requires employee initiative to identify problems and solve them autonomously.
Learning orientation	By absorbing and applying new knowledge and skills, employees will be able to be transitioned quickly from one human resources configuration to another. This perspective creates a more multifunctional staff.	A person's learning orientation provides the capacity to constantly create and adapt new knowledge. Besides, it can be distributed to coworkers.	Continuously try to improve business performance.
Adaptiveness	In order to become scalable as an individual, it is necessary that a person could change his own behavioral style so it fits a new condition.	Applying new knowledge.	Comfortable with new responsibilities.
Innovativeness	An innovative workforce results in a better handling of new technologies, procedures and changing circumstances.	A persons inquisitive and curious spirit enables that knowledge is applied in new developments and renewals and allows the adopting of change.	Flexible core business processes, decentralization or a fluid organization offers an environment and freedom to be more innovative.
Stress resistance	Unpredictable modifications between activities demand stress resistance.	Openness for new knowledge.	Organizational infrastructure is accompanied by decentralization which demands stress resistance.
Entrepreneurship	Showing entrepreneurship results in better employee contribution and a higher organizational value of the performed tasks.	Willingness to obtain new knowledge, networking.	Little hierarchy and minimal boundaries need individual entrepreneurship to renew activities that contribute to a better corporate performance.
Result orientation / proactiveness	A person's proactive behavior initiates that an employee is engaged to make an extra step in hectic times.	Result orientation facilitates the process of turning knowledge into actions towards the actual realization of expected results.	Try to control on output and target setting.

2.5 Organizational practices

Each organization holds a workforce with a certain set of individual competencies. Although these competencies often are adequate for the organization, a dynamic environment requires adaptability and development of competencies in order to preserve fit. For this reason it is essential to implement certain activities that accomplish a better fit between existing individual competencies and business needs and empower the workforce to achieve alignment with the dynamic environment (Wright and Snell, 1998). The use of organizational practices is an efficient way to achieve this objective. In other words, when knowing what kind of individual competencies have to be built and deployed in order to operate in an agile organization, it is essential to specify which underlying organizational practices have to be emphasized, developed or even acquired in order to develop or complete individual competencies for future agility.

Organizational practices are defined as being an efficient (i.e. which uses few resources) and effective way (i.e. which gives the expected result) to carry out a task or a process in an organization (Wright and Boswell, 2002). In the field of strategic human resource management (HRM), scholars emphasis on the concept organizational practices as "the pattern of planned human resource deployments and activities intended to enable the firm to achieve its goals," (Wright and McMahan, 1992, p. 298). In the perspective of this study, organizational practices create the possibility that a workforce fits to business needs of agile organizations or complete individual competencies that are needed for functioning in a dynamic environment. In other words, this research focusses on the organizational practices for individual competence development that organizations apply to cope with a dynamic environment, thereby enhancing their level of organizational agility.

In general, the development of individual competencies for business alignment (e.g. being agile) requires organizational practices that concentrate on strategy formulation and planning or organizational practices that enable rapid and easy transitions from one aligned human resource configuration to another (Dyer and Ericksen, 2006). In the studies by Cabrera and Cabrera (2005) and Youndt, et al. (1996) a couple of relevant people management practices are mentioned that impact employees and shape their competencies, cognitions and attitudes such as communication (both upward and downward), work design, training and development, culture, staffing and information technology. In addition, Dyer and Shafer (1998) represent a corresponding overview about HR activities aimed at building individual key competencies for agility, see figure four.

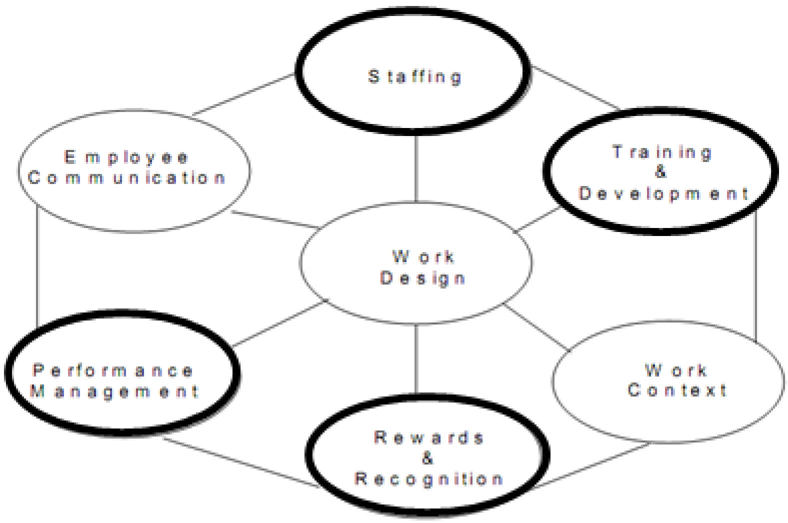

Figure 4. Human Resource activities (Dyer and Shafer, 1998)

In general there are two ways to obtain the necessary individual competencies: develop existing competencies and/or hiring workers who possess these competencies. How to conceptualize those two methods is explained by Dyer and Shafer (1998). Although the overview (figure 3) represent seven Human Resource activities, Dyer and Shafer (1998) argued that specifically four practices contribute to the development/acquiring of individual competencies for agility (in which work design is the central component): staffing, training and development, performance management and competency based pay. Employee communication and work context are excluded in this context since they have no direct link to the development of individual competencies for agility (Dyer and Shafer, 1998, p. 22-23). Each organizational practice which is of interest, will be discussed below.

Briefly, work design is the central component and refers to the way in which assignments are defined. Cabrera and Cabrera (2005, p. 724) stated that 'work design directly affects the structural dimension of social capital by establishing interdependencies, frequency of interactions and information flow requirements among jobs. Therefore, work design is an important tool for fostering knowledge flows by leveraging social networks'. Dyer and Shafer (1998) discuss that agile organizations strive to construct an environment where employees and their colleagues at all different levels see themselves as owners of fluid assignments with responsibility for results rather than as workers of fixed responsibilities for performing tasks. For example, rather than designing stable and individualized jobs with concrete tasks, work can be conceptualized as a series of tasks where employees work closely with other employees on a set of projects. Such work design encourages an environment where employees could interact with each other which results in knowledge sharing. In this context, work design is not seen as an organizational practice in which competencies are developed but more like a context in which individual competencies are formed. For this reason, the component work design acts as a central factor in which organizational practices for competence development are being merged.

Staffing refers to the way in which the workforce is established and which includes recruitment and selection practices. Such practices offer the opportunity to select potential employees which fit best on the individual competencies as required or needed by the organization. For instance, person-organization (P-O) fit is a hiring practice that emphasizes the compatibility between organization and employee characteristics. It is often measured in terms of the congruence between organizational values and beliefs and individual personality, values and needs (Chatman, 1991). It could be discussed that a P-O fit is not a practice for competence development but it is a critical factor during job interviews to test if a potential employee fits the e.g. dynamic environment and complexity in which the company operates (Chatman, 1991). Moreover, during job interviews the organization could test potential employees if they possess the necessary competencies, i.e. by using selection instruments such as psychological tests or assessments. Besides, staffing also includes the hiring of fixed- and temporary workers or allowing organizational slack. Because of the ever-changing situations in the markets supply and demand, agile organizations are forced to attract and dismiss redundant employees. For instance, when demand in manufacturing is high, a manufacturing organization should attract more temporary workers to fulfill the need in supply. Or, the other way around, flow off workers when demand is low and supply is high. By building relations with suppliers of human resources as well as potential employers of the workforce an organization is able to make trustful arrangements about what kind of individual competencies are needed in which period and during which amount of time. It allows HR suppliers to deliver more specific competencies that are required by the organization. Although, with respect to these staffing patterns (core vs. contingent employees), Dyer and Shafer (1998) argued that agile organizations face a dilemma. On the one hand, they need to be able to flex the numbers and types of employees they have to adapt to changing business conditions. On the other hand, contingent employees, especially agency workers and contractors, are difficult to incorporate into the agile way of operating because of the training period and lack of knowledge of the specific culture of the organization.

Practices that are focused on training and development can be used to enhance self-efficacy levels among employees. In other words, training and development provide the opportunity to reinforce competencies and to develop expertise. Dyer and Shafer (1998) provide several ways by which self-efficacy can be strengthened: (1) Job rotation, learning on the job and role-playing. These training instruments let employees experience and practice how to deal with specific job situations. These exercises will improve employees' professional identity.

(2) Competence based training which specifically focuses on those competencies which need a certain refinement or should be developed. These competence based trainings are given to achieve a better placement of the workforce. (3) The use of mastery or success experiences and coaching to distribute crystallized knowledge over “younger” workers. By using (senior) coaches or mastery experiences, competencies are better able to remain – at a constant level – within the organization, irrespective of the fluctuations in the environment or in staff. All of these methods can be included in training programs to increase levels of employee self-efficacy and consequently to refine individual competencies. Hence, the use of extensive training and development programs should help to increase general levels of self-improvement among organizational employees. Consequently, employees will feel more confident of their abilities, will be more likely to exchange their knowledge with others and should be able to be more self-employed.

Performance management is ‘an HRM process concerned with getting the best performance from individuals in an organization. Effective performance management therefore involves sharing an understanding of what needs to be achieved and then managing and developing people in a way that enables such shared objectives to be achieved’ (Armstrong, 2000, p. 69). Questions like what is the development of the employee, what are the profits and how can organizations ensure that employees continue to make profit are central in performance management. To make performance management more effective, it is suggested by Armstrong (2000) that during performance reviews competence development is a point of discussion. Employees become aware of the importance of this development and would possibly perform better on this aspect (Dyer and Shafer, 1998). Moreover, Dyer and Shafer (1998, p. 29-30) state that ‘agile organizations have attempted to engage in goal-setting around common performance metrics and to establish a norm giving all employees a right to receive real-time, primarily informal performance related feedback, either positive or negative (but preferably stacked toward "catching someone doing something right")’. To stimulate this norm, agile organizations communicate and encourage to “walk the talk” on shared values (embracing change, trust, prudent risk-taking, teamwork and cooperation, open information exchange), provide training on goal setting, evaluating behavior and performance and mainly providing constructive feedback. In conclusion, Armstrong (2000, p. 70) argues that a well-developed performance management system will include the following aspects: (1) a statement outlining the organization’s values, (2) a statement of the organization’s objectives, (3) individual objectives which are linked to the organization’s objectives, (4) regular performance reviews throughout the year, (5) performance-related pay and (6) training and counseling.

Competency-based pay or rewarding and recognition is not directly focusing on the development of individual competencies but is a critical factor to encourage preferred behavior and attitudes of employees (Dyer and Shafer, 1998). Given the predicted impact of the perceived benefits of sharing important competencies i.e. knowledge sharing, performance appraisal and compensation systems must be designed to encourage knowledge-sharing behaviors. Rewarding and recognizing these behaviors sends a strong signal to the employees that the organization values the qualities of the employees (Dyer and Shafer, 1998).

Taking the four organizational practices in consideration, there is still one element missing. Cabrera and Cabrera (2005) also mention culture as a very important element for competence development. For instance, organizational culture influences knowledge sharing because it creates an environment of caring and trust which is important for encouraging individuals to share with others. Besides, an organizational culture which allows openness for experimentation foster employees to perform on their own initiative, being more innovative and provide a capacity to learn. Therefore it can be concluded that culture is closely linked to work design. On the other hand, culture could not been evaluated as an organizational practice since it is perceived as a consequence of organizational practices. In other words, culture arise- and is caused by the implementation of certain organizational practices and is not a direct component for competence expansion. For this reason, this study will not include the culture aspect.

In conclusion, the organizational practices which would examined in this study are presented in table 4.

Table 4. Organizational practices for individual competence development in this study

Organizational practices regarding:	
Staffing	• Person-organization (P-O) fit • Job interviews (psychological test and assessment) • Building relations with suppliers of human resources as well as potential employers of the workforce
Training and development	• Modeling and vicarious learning (job rotation, learning on the job and role-playing) • Competence based training • Mastery or success experiences and coaching or verbal persuasion
Performance management	• Performance reviews based on competence development • Goal-setting around common performance metrics • Constructive feedback / counseling
Competency-based pay	• Performance appraisal • Compensation systems

A final note concerning the organizational practices, although an organization uses different HR tools or does investments to encourage employees to develop their skills, behaviors and knowledge, it is an employee's own responsibility and willingness to change and to develop in such a way it is beneficial for the organization (Cabrera and Cabrera, 2005).

Based on the previous mentioned theoretical notions, the second proposition could be drawn as followed:

Proposition 2: In order to develop individual competencies for achieving organizational agility, an organization should implement the organizational practices regarding staffing, training and development, performance management an competency-based pay as presented in table 4.

In conclusion, this research will investigate which specific organizational practices are essential to develop the individual competencies to the required level in order to contribute towards achieving organizational agility. Important to note, the research will first explore what kind of individual competencies are present within agile organizations. Second, it will distinguish what kind of organizational practices should be implemented in order to develop the required individual competencies for the capability to anticipate on the dynamics of the organizations environment.

Besides exploring the above mentioned aspects, this research will investigate and discuss the institutional setting in relation to the implementation of the organizational practices and more importantly the response of organizations to these contexts. In the following two paragraphs, these concepts will be discussed.

2.6 Institutional context

As explained in the dynamic environment paragraph, the level of dynamism within an environment as well as the responsiveness of organizations, is influenced by changes stemming from both market- and institutional pressures (DiMaggio and Powell, 1983; Paauwe, 2004). Regarding the dynamism organizations experienced from the environment, this research will explore which specific institutional pressures influence the implementation of organizational practices for individual competence development.

The concepts of institutionalization emphasizes that behavior of an organization is formed by institutions in the environment (DiMaggio and Powell, 1991). According to Hodgson (2006, p. 2) institutions could be defined as 'systems of established and prevalent social rules that structure social interactions. Language, money, law, systems of weights and measures, table manners, and firms (and other organizations) are thus all institutions.

Besides that behavior of an organization is formed by institutions, DiMaggio and Powell (1991) also mention that "organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness" (DiMaggio and Powell, 1983, p. 150). Greenwood and Hinings (1996) add to this that besides effectiveness and financial success, organizations will be required to be perceived as legitimate in order to survive in the dynamic field in the long run. In this environment, different kind of stakeholders (i.e. trade unions, Works councils and professional organizations) regulate whether an organization could be evaluated as legitimate. In order to be evaluated as legitimate, organizations have to deal with institutional actions. Oliver (1997) shows that institutional actions of an organization are influenced by processes that are associated with each individual, organizational and inter-organizational level of analysis. At the individual level, standards, habits and traditions give an explanation to institutional activities. At organizational level, corporate culture, a shared ideology and the political way of managing processes support the institutional structures of an organization. Institutionalization at inter-organizational level is controlled by pressures from the external environment such as the influence of the government, industry, expectations from society (e.g. rules, norms, standards on product quality or occupational safety). These pressures form the socially acceptable behavior of an organization. In summary, the macro- or environmental perspective is the most dominant actor in the institutional theory.

DiMaggio and Powell (1983) published an article concerning institutional theory and distinguish three isomorphic mechanisms about how institutional effects are spread across an organizational field (all organizations which form a recognizable institutional life with each other) and how organizational practices are shaped in this institutional context. The institutional isomorphism can be categorized into three types of institutional mechanisms that influence organizational decision-making; coercive-, mimetic- and normative mechanisms (DiMaggio and Powell, 1983; Paauwe, 2004). Coercive institutional pressures arise from pressures of other organizations on which a firm is dependent and by the cultural expectations in society (DiMaggio and Powell, 1983) or by political influences like laws, politics and social norms. For instance, a coercive pressure occurs when an organization prefer to reward employees on the bases of competence development, but the Collective Labor Agreement does not permit this compensation system or the Works council does not approve the implementation of this system. In this situation, coercive institutional pressures hinders the organization in the application of the organizational practice for competency-based pay.

Mimetic pressures follow by the fact that organizations face uncertainty and they are inclined to imitate 'best practices' of similar organizations in their organizational field which perceive legitimate and successful. In other words, it refers to copying (benchmark) other organizations which may include ideas or an approach on specific elements of a production process, but also to the way an organization should be. The coping elements are expected to deliver competitive advantage.

Normative pressures come from professional organizations like the relationship between the management policy and the background of employees; education, work experience and professional networks (DiMaggio and Powell, 1983; Paauwe, 2004). For instance, colleges and universities deliver well educated and skilled workers into the labor market with the result that knowledge transfer becomes conceivable.

Important to note, all three mechanisms arise from the need of an organization to have at least a certain level of legitimacy (DiMaggio and Powell, 1983; Paauwe, 2004) and can hinder of facilitate the implementation of organizational practices. Based on the degree of impact of normative, coercive and mimetic factors, the institutional pressure can be perceived as low or high.

In conclusion, this research focuses on the way in which the three isomorphism mechanisms of institutional pressures facilitates or hinders the implementation of organizational practices, which intend to develop individual competencies.

2.7 Strategic response to institutional context

Sometimes, organizations appear to implement organizational practices that seem to mismatch with the objective of coping with a dynamic environment. Paauwe (2004) explains this situation by stating that contingency factors restrict the leeway of both organization and management and more important it affect the leeway of organizations in choosing the best organizational practices. Overall, institutional theory offers an explanation for organizational action within this leeway (Dacin, Goodstein and Scott, 2002; Paauwe, 2004, Pursey, Heugens and Landers, 2009).

Primarily, organizations or sectors can perceive different levels of institutionalization: (1) highly institutionalized with many rules, regulations and strong norms from society, (2) a low degree of institutionalization with little perceived pressure of the institutional environment and thus a broader room to manoeuvre or (3) everything in between low- and high institutionalization. Organizations have to respond in some way to these institutional pressures in order to survive in their external environment. According to Oliver (1991) each organization has a certain degree of choice in responding to these pressures. This response is determined by the strategic choice. The strategic choice provides organizations several possibilities to cope with institutional pressures varying from active resistance to passive response (Oliver, 1991). Boon, et al. (2009) develop three types of institutional fit based on Oliver (1991) and Mirvis (1997): conformist, innovative and defiant. Conformist behavior refers to a passive or neutral response. More specifically, organizations comply with the rules and regulations and follow the normative and mimetic pressures. In contrast, deviant behavior refers to active resistance, so organizations are not complying with rules and regulations and not following normative and mimetic pressures. The innovative response to institutional pressures means being innovative in managing the institutional context where the firm actively leads, initiates or develops changes in the institutional mechanisms (Paauwe, 2004). Overall it is recognized that organizations which experience a high degree of institutionalization perceived little room to manoeuvre in their organizational behavior. However, according to Boon et al. (2009) the diverse institutional pressures does not automatically mean that organizations experience the institutional pressures as hindering. Instead, organizations can build up leeway in choosing the best organizational practices by themselves, even if the organization operates in a highly institutionalized context (Oliver, 1997). But whatever strategic response a firm chooses it needs a certain level of legitimacy from various institutions in society in order to be allowed to survive (e.g. Paauwe, 2004). DiMaggio and Powell (1983, p.150) describe this concept as “Organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness”. In other words, it is important for organizations that they are accepted or judged suitable by their environment because it is relevant for an organization’s access to resources (Deephouse, 1998, p. 360). For instance, DiMaggio and Powell (1991) discuss that firms establish their structures and routines to conform to institutional standards in order to be seen as legitimate by its environment, i.e. it can provide an organization with a superior pool of applicants because of the good image.

In summary, it has been discussed that each firm is embedded in an institutional environment containing of normative, coercive and mimetic mechanisms (DiMaggio and Powell, 1983). These three mechanisms have an impact upon the organizational practices of competence development. But, the institutional pressures are not deterministic (Paauwe, 2004). Each organization has a degree of strategic choice; it has a choice to conform, defy or react with innovative solutions to the institutional pressures (Paauwe, 2004). Hence, it is predictable that the strategic choices made by an organization to cope with institutional pressures, impact upon the degree to which the institutional mechanisms hinder or facilitate the implementation of organizational practices. In conclusion, how an organization deals with institutional pressures is due to the strategic choice they make. Subsequently, this strategic choice is critical in the implementation of the organizational practices (Boon et al. 2009). For this reason, this research will explore how the strategic choice of an organization related to institutional pressures will influence the implementation of organizational practices aimed at developing individual competencies for organizational agility.

Based on the previous mentioned theoretical notions, the third and last proposition could be drawn:

Proposition 3: The influence of the institutional pressures on the implementation of organizational practices for competence development (facilitating, hindering or neutral) depends on the response the organization chooses towards these institutional pressures (conform, innovate or defy).

Before discussing the heuristic framework, table 5 provides a brief summary of the theoretical concepts as argued so far. It gives an overview of the definitions this paper has developed for its key concepts.

Table 5. Overview of the key points in the theoretical framework

Key concept	Key points
Dynamic environment	Environmental dynamism is defined in this paper as: "the degree of change that is hard to predict, with a high degree of change and with significant impact that increases perceived uncertainty for key organizational members".
Dynamic capabilities	Dynamic capabilities reflect the "ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997, p. 516) in order to achieve new forms of competitive advantage.
Organizational agility	There is still no widely excepted definition of the organizational agility concept (Bottani, 2009; Yusuf et al, 1999). Based on several found definitions of the concept, this paper outlines organizational agility as "the ability to adapt to or seize the opportunities presented by changes in the (environment of the) organization in a timely, speedy, effective and cost efficient manner to achieve a series of temporary competitive advantages leading to sustainable competitive advantage". Overall, organizational agility is hypothesized to be shaped by three organizational processes and competencies. The integration and coordination of workforce scalability is one of these practices. The additional two processes deal with the organizational knowledge creation and reconfiguration and transformation of the organizational infrastructure (e.g. Nijssen and Paauwe, 2010). This research specifically concentrate on individual competencies and organizational practices but it is expected they would be in line with the three elements consequently it is supposed it will influence organizational agility with the result on the survival in a dynamic environment.

Individual competencies versus organizational practices	The RBV suggests that the human resource factor is the most important source for organizational success. Reproducing from the RBV, two important aspects are needed that contribute to organizational agility, namely; individual competencies and organizational practices (Breu et al., 2001; Dyer and Erickssen, 2006). An organization should focus on individual competencies of the workforce since it would make a difference whether an employee is capable to participate on the dynamics of the organizations environment (Breu et al., 2001; Dyer and Erickssen, 2006). Individual competencies in general are defined as identified behaviors, knowledge, skills, and abilities that directly and positively impact the success of an employee. Hoekstra and van Sluijs (2007) stated that individual competencies involves expertise and behavioral repertoire. In order to develop individual competencies that are aligned to the business needs, organizations could manage this extension of capabilities by introducing fitting organizational practices. Organizational practices are needed to develop and acquire individual competencies. In this paper, the organizational practices are focusing on the organizational level, whereby an organization deployed practices in such a way that the stimulate individual competencies which fit the business needs for agility.
Institutional mechanisms	The institutional isomorphism can be categorized into three types of institutional mechanisms that influencing organizational decision-making; coercive-, mimetic- and normative mechanisms (DiMaggio and Powell, 1983; Paauwe, 2004). Coercive institutional pressures arise from political influences like laws, politics and social norms. Mimetic pressures follows by the fact that organizations facing uncertainty and they are inclined to reproduce 'best practices'. Normative pressures come from professional organizations like the relationship between the management policy and the background of employees; education, work experience and professional networks.
Strategic response	In order to survive in an external environment organizations have to respond in some way to institutional pressures through their strategic choice. The strategic choice provides organizations several possibilities to manage with institutional pressures varying from active resistance to passive response (Oliver, 1991). Boon, et al. (2009) develop three types of institutional fit based on Oliver (1991) and Mirvis (1997): conformist, innovative and defiant.

2.8 Heuristic framework

The emphasis of this paper is on the organizational practices and individual competencies in relation to institutional mechanisms, strategic choice, organizational agility and as a result the survival in a dynamic environment. Figure four represents the heuristic framework for the research questions posed in this study. In short, the framework starts with the institutional mechanisms. These institutional mechanisms have an impact upon the organizational practices of competence development. But, the institutional pressures are not deterministic (Paauwe, 2004). Each organization has a degree of strategic choice; it has a choice to conform, defy or react with innovative solutions to the institutional pressures (Paauwe, 2004).

Individual competencies (including its practices for development) one proposed to be an opportunity to impact upon the organizational capability of organizational agility, which in turn is proposed to impact upon the organizational outcome of survival in a dynamic environment.

See figure five for the visualization of the heuristic framework

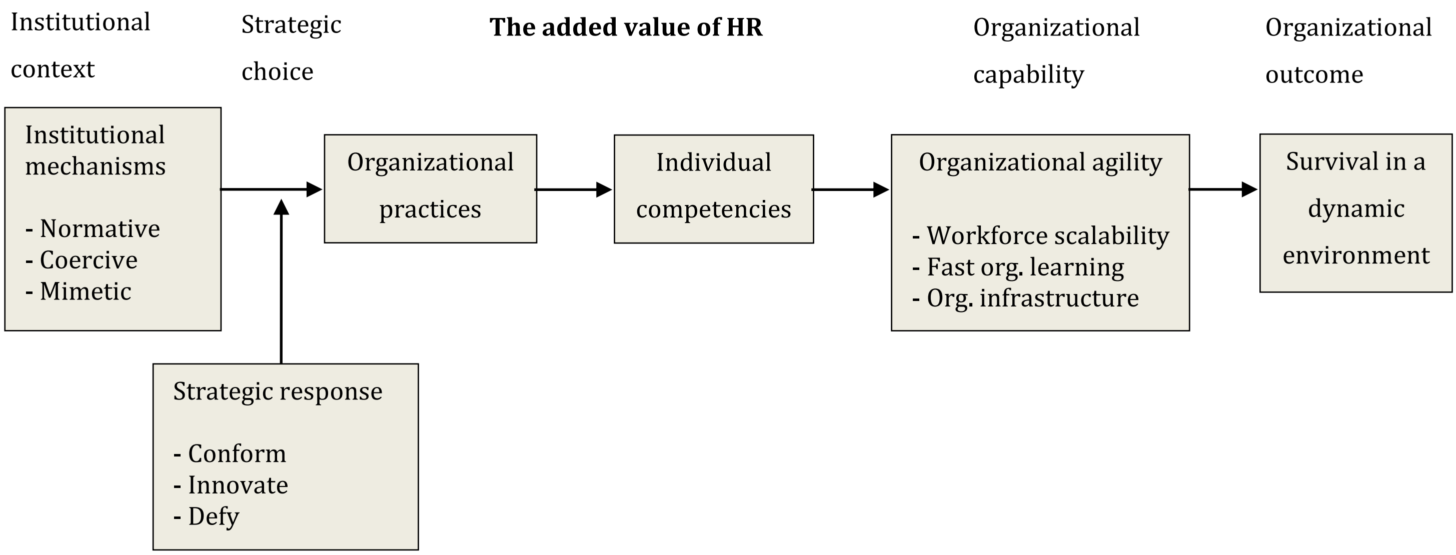

Figure 5. Heuristic framework

2.9 Propositions

Based on the above mentioned theoretical notions three propositions can be outlined:

Proposition 1: In order to operate in an agile organization, the following individual competencies are required: problem solving, learning orientation, adaptive, innovative, stress resistance, entrepreneurship and result orientation.

Proposition 2: In order to develop individual competencies for achieving organizational agility, an organization should implement the organizational practices regarding staffing, training and development, performance management and competency-based pay.

Proposition 3: The influence of the institutional pressures on the implementation of organizational practices for competence development (facilitating, hindering or neutral) depends on the response the organization chooses towards these institutional pressures (conform, innovate or defy).

3. Methodology

The methodological framework describes the approach that was used in order to provide an answer to the research questions. This study uses a case study approach, which allows examining a wide range of variables. The explorative nature of the research questions necessitates an inductive approach by using case studies (Yin, 2003). This research used five different firms (cases) with the purpose to explore which individual competencies are needed to operate in agile organizations and which organizational practices could be implemented in order to obtain these required individual competencies. Besides, the way institutional pressures and the organizations' response to these pressures has an impact upon the organizational practices will also be examined. This research does not have the objective to generalize to a bigger population, but to study a relatively new topic area more in-depth.

3.1 Research design

This explorative research is part of a larger study (Nijssen and Paauwe, 2010) which explores three concepts (workforce scalability, organizational structure and organizational knowledge creation) as determinants for organizational agility, and which explores the role of institutional mechanisms in this. This part of the study is of qualitative nature. Qualitative oriented research allows going in-depth into ill-explored concepts and theory. The research will make use of the concepts of grounded theory. Two basic concepts are central to grounded theory, namely constant comparison and theoretical sampling (Glaser and Strauss, 1967). Constant comparison refers to the process in which data are collected and analyzed simultaneously. This is in contrast with the traditional view of a clean separation of data collection and analysis (Suddaby, 2006). Theoretical sampling refers to the process of choosing new research sites or cases to compare or contrast with ones that have already been studied. The flexibility and limited structure in this kind of research help to keep an open view and allow room for initial insights to develop new theory based on the data (Glaser and Strauss, 1967; Yin, 2003). In contrast to this open view is that the method of grounded theory does not ignore existing literature and knowledge. The researchers will use their prior knowledge and concepts obtained through professional background and literature during the review (Strauss and Corbin, 1990).

3.2 Theoretical sampling

The five case studies that were used are selected based on the relevant organizational field. Firstly, all cases should operate in a dynamic marketplace. A dynamic marketplace is an environment which faces change that is hard to predict, with a high rate and with significant impact that heightens perceived uncertainty for key organizational members (Duncan, 1972; Ansoff and Sullivan, 1993; Dess and Beard, 1984). Secondly, one organizational field is selected which has a relatively high level of institutionalization and one which has a relatively low level of institutionalization. Finally, the relevant sectors are selected based on similarity in the capital/labor ratio as well as the level of education for the employees involved in the key business processes. Based on these criteria the following organizational fields are selected: Public Broadcasting (dynamic and highly institutionalized), Engineering (dynamic and low degree of institutionalization) and High-tech industry (dynamic and highly institutionalized).

3.3 Case descriptions

In this study, five organizations were studied: two public television organizations (organization named Medianet and Be Young), two Engineering organizations (organization named Electrodesign and Techniconsult) and one high-tech organization (organization named Medical Solutions). Important to note, the above-mentioned company names are fictive names in order to ensure the privacy and anonymity of the cooperating organizations but also because it will help to identify and to improve readability of a sector of economic activity. A short description of each case will be outlined. This description will include information on the survival of each firm, number of employees and core process. Extensive case descriptions are available on request.

Medianet is a Public Broadcasting firm which has been in existence since 1994. By the end of 2008 it employed 396 workers (285 FTE). Its main goal is designing and producing shows and media content for television, radio and internet. Regarding the content of its productions, the firm faces coercive pressure ordering them to produce shows for minorities within society; shows which are not made by other Broadcasting firms. Furthermore, the firm faces strong institutional pressures which impact upon its right to exist, its financing, and its Broadcasting quantity.

Be Young is a Public Broadcasting firm which has been in existence since 1998. In the beginning of 2010, the firm had 120 employees (112.32 FTE). The core process of this firm is the design and production of shows and media content for television, radio and internet. This firms' target audience is youth and young adults between 15 and 35 years old. Just like Medianet, this organization is bounded heavily by coercive institutional pressures in the field of e.g. show content, financing and quantity of Broadcasting. When compared to Medianet, Be Young has a different stance in their attitude towards the institutional pressures; this firm focuses relatively more on investigating the benefits and losses associated with defying, or on finding an innovative response. Medianet reacts –relatively to the organization Be Young- more via compliance.

Electrodesign is an Engineering company founded in 1928. This organization employed 342 employees at the end of 2009 (322.8 FTE). The firm offers advice and service in the field of electrical and mechanical engineering. It designs and develops installations for large Public and office buildings, for instance in the healthcare and airport industries. Electrodesign focuses specifically on installations and the firm is in many fields (like health care) the market leader in installation engineering. Overall, Electrodesign has a low degree of institutionalization.

Techniconsult is an Engineering firm founded in 1953. In October 2010, it employed 210 workers (210 FTE). The core process is offering multi-disciplinary consultancy services in the field of structural, architectural and civil engineering, construction management and installations. The organization has a wide scope of disciplines in-house, allowing them to be a 'one stop shop' for clients. Like Electrodesign, Techniconsult has a low degree of institutionalization.

Medical Solutions is an organization operating in the high-tech industry. Medical Solutions is a specific manufacturing department and is active in the healthcare sector. Important to note, Medical Solutions is part of a larger division (called Healthcare) within a corporate international organization. Medical Solutions produces medical systems such as MRI systems which focuses on the fundamental health problems that people face. The firm is one of the market leaders in manufacturing MRI systems. The workforce of the organization consists of 398 permanent employees (387.25 FTE) on July 2011. In addition of the permanent workers, the organization frequently make use of a so called flex-ring (temporary workers). Overall, Medical Solutions is highly institutionalized.

A summarizing overview of the case descriptions can be found in table 6.

Table 6. Summary case descriptions

	Medianet	**Be Young**	**Electrodesign**	**Techniconsult**	**Medical Solutions**
Number of employees (FTE), and date of measurement	396 employees 285 FTE End of 2008	120 employees 112.32 FTE Beginning of 2010	342 employees 322.8 FTE End of 2009	210 employees 210 FTE Autumn 2010	398 employees 387.25 FTE Half of 2011
Existing since	1994	1998	1928	1953	2010 (Healthcare division was founded, part of a corporate organization)
Industry	Public Broadcasting	Public Broadcasting	Engineering	Engineering	High-tech
Institutional pressure	High	High	Low	Low	High
Core process	Designing and producing shows in the fields of information provision/ in-depth journalistic reports, youth, diversity and art & culture.	Designing and producing shows for youth and young adults between 15 and 35 years old.	Offering advice and services (design and develop) in the field of electrical and mechanical engineering.	Offering multi-disciplinary consultancy services in the field of structural, architectural and civil engineering, construction management and installations.	Produces medical systems such as MRI systems which focuses on the fundamental health problems that people face.

A total of 38 interviews (with 40 key informants) was conducted in the five organizations: seven interviews in organization Medianet, six in organization Be Young, seven in organization Electrodesign, eight in organization Techniconsult and ten in organization Medical Solutions. The informants are interviewed for the reason that they have the overview of all the practices used, and since they are the ones actually implementing the practices. More specifically, they direct the business processes that take place and therefore these informants are likely to give an impression of the actual practices. Multiple actors were included in order to increase more valid and reliable data and to get a representative picture of the management practices. The key informants where from different levels including e.g. CEOs, HR managers, chairmen of the works council, and industry-specific functions like editors-in-chief, engineers and supply chain manager. For a more detailed overview of the number of informants per function and per organization, see Appendix E.

3.4 Data collection

Because this study is part of a larger study, there is already some work done concerning the data collection. Previous research focused on the first two organizational fields (Public Broadcasting and Engineering) and the last data were collected at the High-tech organizational field. Semi-structured interviews with informants on the organization as a whole were carried out. The key informants were HR practitioners, managers, and worker representatives which are involved in the key business processes. All interviews lasted for about 1.5 hours and were completed by two researchers. All interviews were recorded and transcribed. A list of topics and subtopics are discussed during the interviews, and there was a flexible order of asking and stating the questions. To get more in-depth information on the subjects follow-up questions were asked. There was also room for informants to bring forward issues on their own initiative. For the total list of topics see Appendix D. Besides the semi-structured interviews, a desk-research and document analysis was carried out. Desk research and document analysis was done through annual reports, websites, plans, press releases etc.

In summary, first it was examined whether the case organizations has already survived within a dynamic environment and has already coped with dynamism for a certain period of time – the 'survival in the dynamic environment'. Therefore the impacts and aspects of the dynamic environment in which the case organization operates were discussed and examined. First, the documents that are studied offer an insight into the overall, general level of dynamics in the environment. Furthermore, the interviews presented to what extent the informants observe the firm's environment as dynamic. Questions like "How variable is the industry?", "To what extent are changes in the environment predictable?" and "To what extent do these changes have an impact on the organization?" are examples in order to investigate whether the organization has operated and coped with dynamism before. Second, 'survival' was measured by considering the longevity and performance of the firm and was covered by the years of existence. After the data collection, it can be concluded that the organizations in this research have survived in a dynamic environment already for a longer period.

The concept organizational agility is measured by asking numerous questions connected to the integration and coordination of a scalable workforce, the organizational knowledge creation process, and the reconfiguration and transformation of the organizational infrastructure. An example question is “Does the organizational structure facilitates or hinders the operation within a dynamic environment?”.

The added value of the workforce is measured by asking several questions about the organizational practices that are employed, which individual competencies are present and how this combination operates in practice. Example questions are: “What organizational practices do you employ to make the workforce fit to the strategy?” and “Are individual competencies important to create agility around your workforce and why? If so, how?”

To guarantee the quality of the research, attention has been given in the data collection to construct validity, internal validity and reliability (Bryman, 2004). Construct validity refers to the extent to which what was to be measured was actually measured and encourages the researcher to deduce hypotheses from a theory that is relevant to the concept (Bryman, 2004). Various procedures of triangulation were used to improve construct validity. Data triangulation has been executed by using multiple sources of documentation and by interviewing multiple key informants, the informants would likely offer different perspectives (Bryman, 2004). Internal validity means “whether there is a good match between researchers’ observations and the theoretical ideas they develop” (Bryman, 2004, p. 273). For instance, in order to guarantee the internal validity of this research, the key informants were asked to review the interview evaluation report and to give feedback during the research process. Through this member check, the participants could validate that their input is correctly represented in the research. Moreover, during the data collection a detailed research plan was followed in order to guarantee the quality of congruence between concepts and observations.

Reliability refers to “the consistency of a measure of a concept” (Bryman, 2004, p. 73). In order to increase the internal reliability of this study, we used existing procedures and systems i.e. we describe accurately how the data collection and analyses is done and applied the procedure in each interview. Moreover, after coding the results of the dialogues the coding’s were discussed by three researchers and been documented in memo’s in order to assure that each member of the research agree about what they have seen and heard. Attention is not much given to external validity – the degree to which a study can be replicated – since it is a difficult criterion to meet in qualitative research. This is because “it is impossible to ‘freeze’ a social setting and the circumstances of an initial study to make it replicable in the sense in which the term is usually employed” (Bryman, 2004, p. 273).

3.5 Procedure

The data was collected through both documentation and interviews with key informants. Each case study had several distinct steps, as discussed below:

- Each case study starts with a first meeting to get acquainted and to request for cooperation with the study. In this first meeting the contact person(s) are identified for further organization in the data collection period. Based on this first meeting an overview is made of the people to be visited and the documents to be collected.
- Once the case study organization has agreed to participate in the study, public documents are collected and studied, using both internet and newspaper clippings (starting from 2006).
- Furthermore a meeting is planned with the contact person (in case this is not the same person as in the first meeting) to collect documentation from the organization itself.
- After document collection the interviews are planned and executed. Possible additional documentation based on the interviews is requested from the contact person. The interviews are recorded and fully transcribed.
- The documentation and interviews provide information for the case study report. The draft case study report is sent to the contact person for review.
- Simultaneously documentation is collected on the sector in which the organization operates and interviews are planned and executed with key informants on the sector (e.g. union representatives, professional associations). This information is summarized in a description of the sector. The draft description is sent to the key informants for review.

3.6 Data analysis

As mentioned in the research design, this research used the concept of grounded theory during the data analysis. Grounded theory is an approach whereby the researcher comes up with new insights and ideas during interviews and add new questions in subsequent interviews in order to test these new insights (Bryman, 2004: p. 401-411). If these subsequent interviews show that the new insights are correct, they are regarded as a well-founded theoretical proposition. Moreover, the relevant data from all the documents and interview transcripts has been analyzed via systematic coding, as is common in analyzing qualitative case study research (Bryman, 2004; Swanborn, 2003). The coding of the data would be realized on the basis of the presented research topics. Open coding helps to split the data in small sections of qualitative information that can be compared and discussed more easily. The encrypting of the data was been completed by three researchers, this in order to generate validity. After coding, the results of the dialogues were discussed by three researchers and been documented in memo's. Finally, done by the researcher the cases were compared with the academic literature and with each other in order to support, to find similarities and to criticize the findings.

4. Findings

In this section, the findings of the five cases in this study will be discussed. The objective of this research was to identify the organizational practices and individual competencies in the context of organizational agility in relation to institutional mechanisms and strategic choice which results in the survival in a dynamic environment. First, the findings explain the level of dynamism and the level of institutional pressures the organizations experience. Second, the findings will focus on the individual competencies as well as on the organizational practices that have been observed in line with previous literature and during the data analysis. Besides, a discussion will be given about how these two concepts result in organizational agility. Finally, the strategic response to the institutional pressures will be explored. These findings will be generated by looking critically to the observed differences between the different sectors and the way in which the cases have coped with the relevant institutional context.

In general, the data analysis provides a variety of findings. However, not all findings are important enough to be presented in this research. The aim is to present only those findings which are applicable to the propositions and any other findings which emerged from the data which the researcher sees as related to this study. For this reason, this section of findings is a summary of the results (see also table 9). Overall, findings are judged as satisfactory when they meet the two requirements below:

- When the researcher found a recurrence in the data across firms, a clear pattern of similarities (the aspect is mentioned by most informants, from four or all five firms).
- When enough data was available to make comparisons and statements.

4.1 The degree of environmental dynamism in the three industries

For this research data was collected from five organizations in The Netherlands; two Public Broadcasting firms (organization Medianet and Be Young), two Engineering companies (organization Electrodesign and Techniconsult) and one High-tech organization (organization Medical Solutions). In this study each examined industry was assumed to operate in a dynamic environment. This environmental dynamism is determined by the degree of change that is hard to predict, with a high degree of change and with significant impact that increases perceived uncertainty for key organizational members and whether the level of dynamics within an environment is caused by changes in both market pressures and institutional pressures. However, an industry could be perceived as having a higher degree of dynamism in the market setting than in the institutional field, or the other way around. Each industry included in this research was subject to a certain level of dynamism. The level of dynamism of these sectors is discussed below.

Public Broadcasting

The level of dynamism in the environment of Public Broadcasting firms can be allocated into a number of classifications: politics, the Public Broadcasting system and the day-to-day dynamics. Moreover, the technological developments in the broadcasting field are also a significant factor of dynamism for all firms in the industry. For instance, a line manager of Medianet stated:

> *"Bij ons veranderen technisch natuurlijk dingen in een duizelingwekkend tempo, dus wat wij nu van mensen vragen, dat vroegen we 10 jaar geleden nog lang niet".*

The politics is an important source of environmental dynamism since it can determine to allow more players in the industry, which amplifies competition for airplay and financial support. This competition results in scarce resources that should be distributed among more Public Broadcasters, which puts extra pressure on each firm in the industry. Furthermore, political decisions - which influence aspects like the firms right to exist, content of shows, airplay and income - are only foreseeable to a certain level. The firms can not always anticipate on these political decisions, i.e. the political elections. The outcome of a political election impacts the Public Broadcasting industry which can force the organizations to focus on other target groups or to redevelop the formats of their programs. An HR manager from Medianet explains this source of changeability as follows:

> "*Want we weten ook niet hoe de toekomst er daarna [verwachte krimp in de toekomst] uitziet. Wilders [politiek kopstuk] hoeft maar heel veel stemmen te genereren, en eh, de wereld ziet er in één keer, voor de media ook, heel anders uit".*

Another source of dynamism is caused by the set-up of the Dutch Public Broadcasting system. The idea behind the set-up of the Dutch Public Broadcasting system is that the Public Broadcasting firms have to compete with each other for airplay in order to ensure high-quality television programs. For each Broadcasting firm there exist standards for bringing forward certain shows, and the "NPO" decides which show is allowed to be produced and aired. When the "NPO" decides that certain programs cannot be aired, it could have a negative effect on operational- and tactical decisions of the organizations. A line manager of Be Young expressed this situation very clearly by saying:

> *"Met een hele late besluitvorming zijn we een programma gaan maken, [..] maar dat weet, eigenlijk moeten [..] we daar een team voor klaar hebben staan, ook mensen van buiten, maar die weten nu nog niet of dat nou gaat komen, dus daar horen we nu hopelijk morgen*

> *pas of wij 1 april kunnen beginnen met het produceren van een programma wat in het najaar op televisie moet komen. [..] die dynamiek van [naam van Organisatie B] als bedrijf dat, in ieder geval voor tv, wordt heel erg door hem [zender coördinator] bepaald. Omdat hij een beslissing uitstelt of juist vindt dat opeens op korte termijn, 'Oh nee, maar we doen dan toch effe zo en toch effe zo, kunnen jullie niet een maand eerder daar in?'. Dan moeten wij daar opeens invliegen, want wij willen dat programma wel maken. Maar dat kan echt beter".*

Another source of dynamism is the impact and role of the society as a whole. The society is the most important consumer of the programs that are broadcasted on TV and radio. In case a program is not appealing by the public, the show will lose listeners and viewers which result in a decision made by the "NPO" to cancel the show. Overall, a division can be made between long-term, stable shows that are quite certain on their future existence (as long as they have enough viewers), and smaller, tentative and more uncertain programs, which experience changes more frequently. However, during the research period a show, which was thought to be a long-term stable project by the respondents of Medianet, was cancelled by the NPO. In this context changes in the Public Broadcasting environment could be assessed as relatively frequent.

However, there are some elements which are less dynamic, more stable and predictable. For instance, the Public Broadcasting firms are certain about their right to exist for a certain period of time and budgets are assigned to a fixed number each year. A Board member of Be Young confirmed this by saying:

> *"Want we zitten ook in een hele veilige publieke situatie [..] je krijgt voor 5 jaar krijg je een toezegging [..] daar hangt ook nog minimaal 70% van je budget krijg je gegarandeerd. [..] we weten nu al dat we volgend jaar minimaal, pak 'm beet, 18 miljoen gaan omzetten, weet ik nu al".*

The final dynamism concerns the daily dynamics. Because the Public Broadcasting firms make shows on day-to-day news and on current topics in society, the organizations are exposed to daily dynamics. These daily dynamics are even more enhanced by the behavior of competitors. For instance, a competitor could be notified by a newsflash first which provides the beneficial position to bring the news as first to the audience. Above mentioned elements influence the content and the quality of each daily/weekly show, which will have impact on the success of the show.

Engineering industry

Concerning the field in which the Engineering firms operate, a few general causes of dynamics are existing: rules and regulations, the level of market dynamics, the level of dynamism caused by unpredictability in project duration. Just like the Public Broadcasting industry, again technological developments and political decisions have an impact.

In general the organizational field for Engineering firms is very broad and contains clients, partners, competitors, and other related institutions. The difference between stakeholders could be explained by the reasoning that Engineering firms operate on project basis which means that per project they have another client where they work for. This frequent change of partnerships results in facing diverse rules and regulations and that they have to adapt to different situations. One of the project employees of Electrodesign describes this as follows:

> *"Er is niks zo dynamisch als de luchtvaart, want die verandert continue."*

The changing rules and regulations mean modifications in the work process and product delivered, as mentioned by the chairman of the Works council of Electrodesign:

> *"Dus die regels [coercive pressure] veranderen continue, en die regels kunnen enorme impact hebben".*

A clear statement about this level of market dynamism was brought forward by the head of an Advisory Group of Techniconsult:

> *"Nou, dit was heel moeilijk voorspelbaar [...] in 2008 een van onze beste opdrachtgevers [..]. Terwijl zijn omzet in 2009 is gedecimeerd tot nou hooguit 20% van dat verhaal. Dat betekent ook dat de omzet voor ons dat is dat percentage is gerealiseerd. En dan kun je wel zeggen van ja "het gaat minder worden in de markt", maar dat het zo veel minder wordt [dat weet je niet]. En aan de andere kant hebben we dus een aantal hele goeie projecten [..] gekregen, dat ook niet uiterlijk heel voorzienbaar was. Dus je kunt wel je mensen er voor opleiden en alvast bepaalde dingen gaan doen, maar het blijft toch altijd weer [..]. Het is nauwelijks voorspelbaar wat er op ons pad gaat komen".*

As mentioned above, the Engineering industry mostly works on a project basis. Consequently, a client only provides assignments per phase of a project, which causes a constant unpredictability regarding how much time a project will produce work for the organization. Especially in the current economic crisis and ad-hoc political decisions, clients of the Engineering industry must make some savings whereby already started projects must be set on hold or even been cancelled. The HR manager of Techniconsult explains this as follows:

> *"Je kunt geconfronteerd worden met allerlei invloeden van buitenaf en dat is die dynamiek waardoor je alles wat je in plan had uitgewerkt, anders komt. Soms hebben we er geen invloed op dat een project stil komt te liggen. Want daarin kunnen politieke invloeden een rol spelen".*

The unpredictability in the extent of projects impacts e.g. the staffing and planning of the organizations. Besides, because of the variety of involved stakeholders the decision making process becomes more multifaceted, complex and time consuming which results in an unpredictability in project duration. The predictability in projects is highlighted by one of the Board members of Electrodesign:

> *"De kick off voor het nieuwe project van Electrodesign is voor volgende week gepland. Dus we weten nu al weer wat er gaat komen. Nou, dat weten we al meer dan een half jaar, dat het komt, alleen wanneer het komt, dat is onzeker, en dat wordt dan steeds weer uitgesteld".*

Finally, the technological developments in the Engineering industry can be perceived as highly dynamic or not. This degree of dynamism is dependent on the industry in which you compare the technological developments and is dependent on the level of changes. When considering the technological developments in the industries the Engineering firms work for, the changes can occur with a high frequency. However, when looking at the basic techniques the manager of an Advisory Group of Electrodesign believes that their operations field is not exposed to highly technological changes:

> *"Op zich is de techniek an sich, installatietechniek is, ja niet een ontzettend snel ontwikkelend vakgebied denk ik, het zijn toch vrij basisprincipes".*

High-tech industry

Key players in the High-tech industry are clients/customers, competitors, the Works council and diverse stakeholders. In the various fields in which the high-tech firm operates, a level of dynamism can be found within the manufacturing, in which the fluctuations in supply and demands allow changing requirements. In general, the expectations on the production demand is reasonable well known, but in certain times it can still be unpredictable. This unpredictability is brought forward trough the high demand for repair services, since the firm produces products which cannot fully been developed in all aspects. A manufacturing manager of Medical Solutions described this dynamic factor by mentioning:

> *"Ik denk dat er zeer veel dynamiek is ja. Ik heb zelden in een fabriek gewerkt waar de dynamiek groter was, ondanks dat de aantallen [productie-eenheden] heel klein zijn. Is de dynamiek toch groot. Omdat er door die lage aantallen producten worden geïntroduceerd die gewoon niet volledig uitontwikkeld zijn".*

Moreover, due to the fluctuations in supply and demands it is expected from suppliers that they will move up-and-down in the need for stock. However, because of the unpredictability of these prospects it is difficult for suppliers to meet this market demand with the result that the production for Medical Solutions stagnates. A line manager of Medical Solutions described this process as follows:

> *"Nou ik denk dat wij te veel verstoringen in onze keten hebben onvoorzien met name op technisch gebied maar ook met materialen. We hebben gewoon een behoorlijk kwetsbare leveranciers keten. En dat we daardoor vaker gewoon in de knoei komen en dus de kwaliteit van ons product is gewoon van dermate [..] 't is zo'n hightech product dat er gewoon ook nog heel veel fout kan gaan. Het is niet een repeat product waarin je duizend stuks op een dag maakt. [..] Dus het zijn allemaal projectjes op zich. En de kans dat er iets fout gaat in het traject is behoorlijk groot en je wil toch heel die keten gewoon netjes op tijd afleveren".*

Because of the perceived market pressure, the firm is forced to introduce a product even when it is not optimally developed in its functioning. A line manager of Medical Solutions:

> *"Ja, en dat ook soms onder druk van de markt hè. We hebben nu een nieuwe introductie van een nieuw product.".*

A new product introduction also impacts the staffing and planning of manufacturing. A Recruiter of Medical Solutions explains this situation by saying:

> *"Je hebt daar dus die fluctuatie die natuurlijk ook heel erg afhankelijk is van of er een nieuw product is op dit moment dat we gaan introduceren. We hebben bijvoorbeeld op dit moment een MRI scanner die gewoon heel veel extra mankracht vergt. Dat zijn enerzijds tijdelijke krachten die je dan weer moet inhuren".*

The politics cause environmental dynamism since it imposes the firm to abide to several rules and legislations, since they produce medical health systems. These regulations causes many restrictions within the product development and production of the medical systems. The difficulty to meet all the requirements results in high pressure and constant evaluations and adjustments in the production process. A line manager of Medical Solutions:

> *"Het product wordt gemaakt en geleverd binnen de kaders van de wetgeving. Er is tevens een speciale vrijgave van protocollen om goed te keuren dat we hebben afgeweken van wat normaal was, dus ja er gebeurt echt heel veel binnen de techniek".*

A final level of dynamism is caused by the corporate organization of which Medical Solutions is part of. Decisions concerning the format of the organization are made at corporate levels with the result that Medical Solutions have to accept these decisions and have to deal with it. For instance, recently there was a merger in which different departments with different working styles were forced to work together and be one division. Overall it is regulated that the business decision making process is the responsibility of the corporate organization of which Medical Solutions is only a small part. A line manager and a recruiter of Medical Solutions explains this practice as follow:

> *"En nou is het meer van, dien maar een CR in - een change request, dan wordt dat eerst wereldwijd beoordeeld van 'goh levert dat wat op'? En willen we het allemaal wel hebben".*

> *"En hoe lager je komt hoe meer er moet gebeuren. En ik denk dan dat er heel makkelijk wordt geroepen van we gaan dit doen en dan moet dat staan en dan willen we zoveel miljoen daar bespaard hebben en dat wordt zo naar beneden geduwd. Maar hoe lager je in de organisatie komt, hoe meer impact dat heeft en hoe meer eh veranderingen dat teweeg brengt".*

In conclusion, both Public Broadcasting firms and the High-tech organization generally perceive their dynamics from different institutions. The dynamic in the Engineering industry however depends on the market demand.

4.2 The level of institutionalization

This paragraph discuss the source and degree of institutionalization in a more detailed way.

All organizations in the sample have to cope with generic labor law, as do all companies which operate in the Netherlands. However, the two firms in the Public Broadcasting industry have several additional relevant institutional features. These features entail the Collective Labor Agreement (CLA) on the ratio fixed / flex employees, Media law, the expected code of conduct from companies supported with public funding and their normative awareness of their role as guardians for democracy and legitimacy. A line manager and Chief Editor of Medianet explain this by saying:

> *"Blijkbaar worden wij gezien als beschermers van onze democratie, omdat wij een onafhankelijke instelling zijn.. het publiek moet erop kunnen vertrouwen dat wij betrouwbaar nieuws brengen".*

> *"Wij zijn onafhankelijke instituten [..] waar de burger op moet kunnen vertrouwen dat wij met berichtgeving komen die klopt".*

Moreover, the normative awareness for legitimacy is accompanied by different rules and regulations that are applicable within the Public Broadcasting industry. A Jurist of organization Be Young discuss this aspect by saying:

> *"Als jurist heb je een soort spanningsveld waarin de programmamakers [..] die hebben creativiteit en die weten niet per se de wet- en regelgeving, die dragen dat niet met zich mee zoals een jurist dat doet, maar die hebben natuurlijk wel een normatief besef [..] je voelt wel aan of iets een bepaalde grens opgaat [..] als mensen voelen van nou hier kan ik gezeik mee krijgen of mensen denken van dit wil ik onderzoeken, maar misschien schaad ik hier bepaalde belangen van mensen mee, [..] dan gaan ze naar de jurist of leidinggevende en die stuurt ze door om te checken [..] overtreden we hier geen wet".*

In contrast, the normative pressure from educational institutions is limited in the Public Broadcasting sector. With the exception of journalists there is no formal relevant education for most of the workers in the Public Broadcasting organizations. Overall, mostly coercive pressures control the activities of the Public Broadcasting firms.

The level of institutionalization for the Engineering industry is relatively low. The most important source of institutionalization is the generic labor law which is relevant for all organizations operating in the Netherlands. With regards to the labor regulation, the Works council is the most important institution for both Engineering firms. A Works council representative of Electrodesign argued this by saying:

> *"Wij zijn niet gekoppeld aan een vakbond die bepaald: 'dit jaar zullen we allemaal een uur langer of korter werken, of de salarissen zullen omhoog gaan, of dat soort zaken'. Dit ligt niet vast bij een dergelijke vereniging maar wordt door de organisatie zelf geregeld".*

Both Engineering firms have to deal with their own organization specific labor regulations. The Chairman of the Works council of Electrodesign explains this by saying:

> *"Een bedrijf als Electrodesign is in velerlei opzichten uniek, en ook qua structuur. Het is een vrije beroepenbedrijf, dat betekend dat het niet aangesloten is bij een grote brancheorganisatie, waarbij de brancheorganisatie zegt van 'dit jaar gaan we een uur langer werken of een uur korter werken, of de salarissen gaan zoveel omhoog, of dat soort zaken'. Doordat het niet in zo'n groep zit gaat het allemaal vanuit de organisatie zelf".*

In contrast, there is a coordinating mechanism which is a professional association named NLIngeniers. NLIngeniers are concentrated on promoting and defending the Engineering sector. However, data do not provide specific facts or figures concerning the rate of unionization in order to see the impact of this professional association.

The normative pressure of the Engineering sector derives from the educational institutions for engineers and the codes of conduct. An HR Manager of Electrodesign stated:

> *"We hebben gedragscodes. Staat ook op intranet. Hoe je dus omgaat met ook externen".*

The level of institutionalization of Medical Solutions (operating in the High-tech industry) can be analyzed as high. The most important source of institutionalization is the generic labor law which is relevant for all organizations operating in the Netherlands. Furthermore, Medical Solutions is exposed to a number of other institutions like the Works council and the CLA-regulations. The CLA-regulations is focused specifically on the sector where Medical Solutions is operating in, whereby rules are set-up explicitly for Medical Solutions. The Works council has a determining voice and focus on workers interests. A line manager of Medical Solutions explains the role of the Works council as follows:

> *"Hier moet u eerst vragen aan de OR of dat wel mag en dit en dat en dan ben je een half jaar verder en dan heb je nog geen besluit. En dan een vervolgtraject en dan moet er nog bijgestuurd worden, dus ja je merkt dat dat wel in onze cultuur zit. Dat we alles vast moeten leggen en ellenlange discussies hebben voordat we uiteindelijk echte besluiten mogen nemen. Vooral de OR denk ik [..], dat is toch ook wel typisch Nederlands, je moet toch overal zeggenschap in hebben en je moet echt toch wel helemaal uitgekauwd worden voordat we iets kunnen invoeren".*

However, the most important institutions for Medical Solutions are those who control the quality of operations and the delivered products. These external institutions determine how the work design should be organized and provide instruments for competitive advantage. The Manufacturing manager of Medical Solutions stated:

> *"Een barrière is dat zaken geregulariseerd zijn ofwel wij vallen onder allerlei wetgevingen omdat wij een apparaat in de markt zetten waarbij je mensen op behandeld en als jij een fout maakt, dan kan een mens overlijden omdat hij weet ik wat geëlektrocuteerd wordt of whatever, dat kan. Dus er zijn allerlei wetgevingen waar wij aan moeten voldoen waardoor het voor een heleboel geldt 'gij zult en gij moet'. Wij moeten alle weeklijsten invullen en het is niet even een kriebel, nee het moet met een blauwe pen en er mag geen streepje opstaan en als je er een streepje op hebt staan dan moet je dit verantwoorden. Je wordt er helemaal gek van".*

Overall, it can be concluded that Medical Solutions experienced mostly coercive- and normative pressures.

In summary, the Public Broadcasting and High-tech industry were expected to be highly institutionalized, while the Engineering industry was assumed to have a relatively low degree of institutionalization. In summary, the dynamics within the environment of the Public Broadcasting firms was expected to stem from the high degree of institutional pressures they perceived. Moreover, the High-tech industry displayed a high degree of institutional pressure since they are constantly influenced by various external forces from its environment, like Collective Labor Agreements, trade unions, quality rules etc. For instance, the examined firm (Medical Solutions) in this study has to deal with numerous quality rules and regulations since they produce medical health systems, which result in a dependency on external pressures. The Engineering firms however observe a much lower degree of institutional pressure (e.g. since they are not directly reliant on the government for their existence, income and output). Both Engineering firms are commercially oriented and strive for profit. Consequently, their income is more dependent on the market. For this reason it can be concluded that the environmental dynamism in the Engineering industry is assumed to stem from market pressures.

The data analysis of the documents and the interview transcripts indicated that the Public Broadcasting and High-tech firms are exposed to a higher degree of institutional pressure than the Engineering industry. A more detailed overview about how institutional pressures impact each industry will be discussed in paragraph 4.5 in which the findings regarding proposition three are represented. Table 7 provides an overview of differences with respect to the level of institutionalization of all three sectors to which the five firms belong.

Table 7. Overview institutionalization

	Public Broadcasting	Engineering	High-tech
Coercive	• Generic labor law • Collective Labor Agreement • Additional national and European rules on sourcing and employment mix	• Generic labor law • Company specific regulations	• Generic labor law • Company specific regulations (CLA-regulations)
Normative	• Operating in public spotlight, highly visible • Specific role in society • Professional bodies	• Need for quality and reliability based on public discussions • Educational institutions for engineers • Professional bodies	• Quality standards for production process • Professional bodies
Mimetic	• All located in one location • Benchmarking and best-practices based on formal visitation from NPO	• Benchmarking and best-practices	• Benchmarking and best-practices

4.3 Proposition 1 - Individual competencies

By using the RBV theory, this study assumes that the human resource asset is the most important asset in an organizations' competitive advantage structure and consequently that organizations should focus on individual competencies of the workforce since it will make a difference whether an employee is capable to anticipate on the dynamics of the organizations environment (Breu et al., 2001; Dyer and Ericksen, 2006).

Nijssen and Paauwe (2010) suggest that organizational agility consists of three elements that contribute to the survival in dynamic environments, namely: a scalable workforce (in terms of quantity and quality), fast organizational knowledge creation and a highly adaptable organizational infrastructure. As mentioned before, this research assumes that - besides the three elements of organizational agility - individual competencies plays a key role in creating organizational agility. Given this perspective, it is expected that the proposed individual competencies could be seen as a synergy between- and should have an overlap with the three elements for organizational agility.

Each case shows that their employees are seen as an important asset within the organization and that they make a difference in the organizational performance. Statements of the chairman of the Works council of Medical Solutions, HR manager of Electrodesign and a Board member of Be Young explain:

> *"Onze werknemers zijn onze belangrijkste asset".*
>
> *"Wij onderscheiden ons toch weer doordat we bijzonder zijn. Dat zit weer in onze mensen".*
>
> *"Het succes van onze organisatie.. ik denk dat het altijd in de mensen zit [..] Organisaties worden gevormd door mensen en wij hebben ook een organisatie waarin mensen [..] dat we ook waarborgen dat mensen een zekere vrijheid hebben in het in ieder geval in het verzinnen van de content, creatieve ideeën in het opereren daarin".*

Besides, all cases indicate that individual competencies of their workforce have a significant contribution to the process of agility. Individual competencies make it possible to align employees to the strategy of being agile in order to cope with dynamism. By doing so, an organization has the opportunity to become more flexible with their human resources and become capable to respond more quickly to the changes within their environment; achieving organizational agility. An HR manager of Electrodesign and Medical Solutions defines this asset as followed:

> *"Het enige wat wij hebben binnen Electrodesign zijn mensen. 85% van onze kosten bestaat uit salaris en daaraan gekoppelde kosten die we maken. [..] En als je dat zegt hoe we daarmee omgaan met die 85%, met die mensen is dat wij gewoon die mensen op een passende manier inzetten. Dus kijken wat kunnen ze [..] Waar passen de profielen van de personen het beste bij de profielen van de opdracht en opdrachtgever".*
>
> "*Onze medewerkers worden geselecteerd op een speciaal profiel bestaande uit individuele competenties en vaardigheden, zodat ze veelzijdig zijn en beter passen bij de waarden en doelen van ons bedrijf. Aan de andere kant is het natuurlijk ook belangrijk dat ze passen bij de functie".*

Furthermore, a Board member of Be Young stated:

> *"Maar er worden ook steeds meer mensen multidisciplinair, mensen kunnen een camera monteren en redacteur zijn, steeds meer dingen lopen in elkaar over…".*

Besides the understanding of the importance of the workforce, the cases indicate that individual competencies are needed to fulfill the implementation of the three elements for organizational agility. For instance, a line manager of the High-tech firm suggests that:

> "*Om wendbaarheid mogelijk te maken moeten onze medewerkers bezitten over een bepaalde expertise zodat ze gemakkelijker ingezet kunnen worden bij andere afdelingen. Wat ik bedoel, wanneer een werknemer niet flexibel is of niet beschikt over een bepaald probleemoplossend vermogen of innovatie vaardigheid, zou deze niet bekwaam zijn om in te springen op veranderingen"*.

In conclusion, the cases indicate that individual competencies are an important element in the business process and in generating competitive advantage. The individual competencies which are present in agile organizations will be discussed below.

Based on theoretical notions, this study proposed the following: 'In order to operate in an agile organization, the following individual competencies are required: problem solving, learning orientation, adaptive, innovative, stress resistance, entrepreneurship and result orientation. Multiple individual competencies are mentioned in the data, but the cases illustrate a relative similarity to a number of competencies that are related to the characteristics of agility. The outcomes of the individual competencies which are proposed in the theory and which also were observed in the data analysis are presented in table 8. Each competency is supported by several quotes from the key informants. The individual competencies that were not proposed based on theory in the first place, but seem important individual competencies for achieving organizational agility after the data analysis, will be discussed later on in the paragraph. Besides, the competencies that are not confirmed by the cases are mentioned too.

Table 8. Summary of findings for individual competencies

Competency		Contributes to agility through..
Adaptive		Willingness to make an extra step in hectic times and to gather extra needed skills. Or when problems arise, if necessary change behavior style in order to achieve a stated goal.
	Quotation:	HR Manager of Techniconsult: *"We zorgen er altijd voor dat mensen in meerdere vakgroepen kunnen acteren, bijvoorbeeld een projectmanager die ook de directievoering kan doen [..] dus we proberen wel de mensen interdisciplinair te laten werken [..] In ons aannamebeleid vragen we dus [..] altijd naar de bredere inzetbaarheid van de mensen".*
Result orientation		Actions and decisions towards the actual realization of expected results. Think ahead
	Quotations:	Editor of Be Young: *"De ene keer moet je gewoon even een keer harder trekken omdat er meer nieuws is [..] dus je komt niet om je uurtjes te draaien maar je komt om een programma te maken".* Line manager of Medical Solutions: *"Er zijn er dus bij die zijn echt vreselijk gemotiveerd en goed. En die hebben vakmanschap en creativiteit. Daar zit de drive om dingen te veranderen".*
Problem solving		Identifying (potential) problems / issues and solve this independently or in collaboration with others.
	Quotation:	Line manager of Medical Solutions: *"Ik verwacht dat mensen op zoek gaan naar nieuwe uitdagingen, dat ze altijd proberen dingen te verbeteren, altijd te denken aan nou vandaag doe ik het zo maar kan ik niet een beetje beter.. een stap extra zetten".*
Entrepreneurship		Identify and convert opportunities into strategies and improvement or renewal activities that contribute to better corporate performance.
	Quotations:	Consulting Engineer of Techniconsult: *"Het gaat niet alleen maar om of je de goeie dingen kunt doen, maar weet je ze ook op het juiste moment in te zetten, te communiceren, weet je opdrachtgevers aan je te binden [..] hoe je om moet gaan als het verhaal zich tegen je keert en je de belangen van [Company name] hoog moet houden".* HR Manager of Techniconsult: *"Hou ze [de werknemers] echt bezig met strategische vragen zodat ze ondernemerskwaliteiten kunnen laten zien".* Line manager of Medical Solutions: "*Dus wat ik van mensen vraag [..] is een stukje creativiteit en ondernemerschap. Bijvoorbeeld van als ik het in zou moeten richten dan zou ik het zo doen. En dan ook de lange adem hebben om er zelf ook wat mee te doen hé. Niet van ja dan moeten ZE maar oplossen, nee wat kan ik daar in betekenen om dat op te lossen".*

Innovativeness / creativeness	The degree to which an individual initiates, implements, realizes or early adopts change, improvement and renewals. Able to generate innovative solutions for unpredictable conditions.
Quotations:	Radio Director of Be Young: *"Als een dag-programmering veranderd [..] of de omroep besluit dat het anders moet [..]dan volgt direct open intekening dus daar mag iedereen op intekenen en het beste voorstel wint".* Board member of Be Young: *"We waarborgen dat mensen een zekere vrijheid hebben in het in ieder geval in het verzinnen van de content, creatieve ideeën en in het opereren daarin".*
Stress resistance / risk taking	Because of the ever-changing situations and uncertainty, employees should be able to deal with stress and capable to take risks.
Quotations:	HR Manager of Medical Solutions: *"Ik denk dat we overal wel in hebben staan dat men flexibel en stressbestendig moet zijn, als je het puur hebt over competenties hé. Dan denk ik dat dat wel in elke vacature terug komt. Je moet ook flexibel zijn en je moet je kunnen aanpassen op het geen wat er op dat moment gebeurd".* Line manager of Medical Solutions: *"Wij verwachten van onze werknemers een hoge mate van inspanning en betrokkenheid zodat doelen behaald kunnen worden, ook al veranderen deze doelen constant door de dynamiek in de omgeving. Om deze reden verwachten wij van onze werknemers dat ze om kunnen gaan met stress en dat ze lef tonen".*

Learning orientation is proposed to be a competency for agility. However, a special explanation for this individual competency is required since the data show that learning orientation is understood as a component of self-development, which is seen as someone's own responsibility and learning orientation is assumed as an indirect needed competency for operating in an agile organization. For instance, an informant of Medical Solutions explains this process as follows:

> *"Onze werknemers hebben een vrije keuze om deel te nemen aan een opleiding of een bepaalde training. Natuurlijk verwachten wij van hen dat ze.. ja voldoen aan de basiskennis, maar de verdere persoonlijke ontwikkeling is hun eigen verantwoordelijkheid. Dit komt voornamelijk omdat we te maken hebben met twee verschillende groepen: één groep die graag wil leren en één groep die al tevreden is met zijn huidige situatie en geen verdere interesse heeft betreft ontwikkeling".*

The HR manager of Electrodesign confirms this process as well in the Engineering organization by explaining:

> *" Iedere werknemer, iedereen is voor zijn eigen ontwikkeling verantwoordelijk. [..] Als jij vindt dat je te weinig opleiding hebt, dan mag je dat niet je baas verwijten, dan moet je aan de bel trekken."*

In contrast, all firms provide a range of development opportunities and try to stimulate personal growth. For instance, Be Young has a broad offering of training for their employees. With regards to the limitations in interchangeability between TV, Radio and Internet they offer training around cross medial working. In their training around career planning they have a module called "Bij de buren gluren" [peeking at the neighbors], allowing employees to learn the job for a day on other shows or within other functions. Moreover, Techniconsult offer several trainings on innovation, practices for knowledge sharing and training on the job, just like in the other examined cases. These practices for development and self-enhancing will be explained in more detail in the next paragraph.

Although learning orientation is understood as someone's own responsibility, obviously it is an important aspect where agile organizations give a lot of attention to since fast organizational learning is one element for achieving organizational agility. Given this perspective, it can be stated that learning orientation seems to be an important individual competency for operating in an agile organization but it is an employee's choice to enhanced this orientation.

Besides the above presented competencies two other core competencies seem very important for achieving organizational agility according the data. However, these were not proposed based on theory in the first place. These two core competencies include craftsmanship and troubleshooting. In essence, all organizations argued that "craftsmanship" is the individual key competency for a workforce which operates in a dynamic organization. "Craftsmanship" refers to a special expertise that is usually been engaged through experience. According the data, "craftsmanship" could be defined as the extent to which one possess professional knowledge and skills that are required to perform the job adequately. According key informants, "craftsmanship" ensures that an employee is able to capture on the fluctuations of the dynamic environment. Through this competency, an employee is talented to switch faster on activities and has a higher quality and faster task completion because there is less training needed. The manufacturing manager of Medical Solutions supports this perspective by saying:

> *"Binnen onze organisatie hebben we een groep die bezitten over vakmanschap en creativiteit. Zij zijn degenen die beter kunnen reageren op veranderingen. Daarentegen hebben we ook een groep die niet beschikken over deze competenties en hierbij zien we dat zij stagneren door de instabiliteit van deze omgeving."*

The Chief Editor of Medianet adds:

> *"Er zit ontzettend veel expertise binnen Medianet. Daar zijn we eigenlijk wel de beste in. Als je dat probeert te beoordelen uit een soort objectieve kwaliteitstoets, dan zal je zien dat Medianet op informatieve gebieden eigenlijk wel de beste mensen in huis heeft".*

Although "craftsmanship" is a condition to perform tasks properly in the Public Broadcasting firms, "craftsmanship" also can make employees less flexible. The employees in this industry have professional knowledge and skills in one specific discipline. For instance, an employee of Be Young has the skills and capabilities to work at the radio station of the organization , but he might not have the right set of skills and capabilities to work as a journalist at the television broadcast department of the organization. Of course, "craftsmanship" is very important for organizations. It ensures quality of work, but in some industries it can cause employees to have a lot of knowledge on one specific subject, which hinders them in successfully performing other tasks in the firm. More specific, "craftsmanship" in Public Broadcasting firms makes employees less agile.

Besides the competency "craftsmanship", the key informants of the sample mentioned a second essential key competence; "be a fireman". A manager of Medical Solutions explains "be a fireman" as being reactive, having one goal and be able to react fast on unpredictable situations. In other words, "be a fireman" could be defined as troubleshooting – the competence in order to cope and to react fast on unpredictable situations. Because all organizations operate in a business environment where time is a key resource and competitiveness a constantly moving target and where the organizations face the inevitability of constant change, the competency troubleshooting in order to respond rapidly on developments is required. A line manager of Medical Solutions even suggests that the competency troubleshooting is the success factor that makes agility fruitful in their organization and it provides multi-employability:

> *"Wij zijn echte brandweermannen. Brandjes blussen dat kunnen wij heel goed. Daar zijn we ook heel vaak succesvol in. Onze goede brandweermannen die hebben meestal maar één doel voor ogen en namelijk die klant moet beleverd worden. En die kennen alle regels wat wel kan en wat niet kan en die vullen ook de gaten en de mazen in de wet, dus die weten het*

altijd wel zo te regelen en te ritselen en te manoeuvreren dat we het toch nog voor elkaar krijgen".

Besides the above mentioned individual competencies for agility, two other important aspects for agility were mentioned in the data but were not proposed in the first place, namely: commitment and intrinsic motivation. In literature commitment is defined as "a force that binds an individual to a course of action that is of relevance to a particular target" (Meyer and Herscovitch, 2001, p. 301). Intrinsic motivation in definition reflects "the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn (i.e., the activity itself is enjoyable)" (Ryan and Deci, 2000, p. 70). Important to note, commitment and intrinsic motivation are not evaluated as competencies but can be assessed as representing behaviors that are indispensable in the set-up of organizational agility. In essence, commitment and intrinsic motivation are components that are in line with each other. Each organization stated that they possess a committed workforce. A Chief editor of Medianet explains this commitment by saying:

"Iedereen is heel erg betrokken [..]. Ik ken weinig plekken waar mensen zich zo betrokken voelen bij wat ze doen. Weet je, het is bijna een familie hier".

According to the data, commitment could be defined as a work attitude that is directly related to employee participation and intention to remain with the organization and is clearly linked to job performance (see also Mathieu and Zajac, 1990). Key informants stated that commitment results in 'willingness to make an extra step' and it creates a shared mindset. In other words, when an employee shows commitment, he or she identifies and converts opportunities into strategies and improvement or renewal activities that contribute to a better corporate performance. A line manager of the Supply Chain of Medical Solutions clarifies this as follows:

"De commitment van onze medewerkers is heel hoog, de motivatie, de betrokkenheid [..] nou ja die visibility en het gezamenlijke doel zijn daarbij belangrijk".

Moreover, key informants argued that commitment is useful in hectic times, when working overtime is required, the workload is high and extra effort is needed. A line manager of Medical Solutions explains this by saying:

"De commitment van onze medewerkers is heel hoog, de motivatie, de betrokkenheid.. Ook de commitment naar de klant maar ook het willen. Dus als iedereen gewoon lekker aan het strand ligt dat je hier in de fabriek nog bezig bent.. kijk het is hier een hollen of stilstaan

> *industrie. Dat is vervelend. En alhoewel de wet zegt dat je overwerk mag verplichten, noemen wij dat maar zelden.. meestal halen we het uit vrijwilligers en gaat dat ook voldoende goed. Van jongens we hebben een probleem, leggen het probleem uit en nogmaals wat zijn goede eigenschappen van de club die er al lang zit, ze willen ook altijd gaten dicht zetten. Ze snappen dan ook dat we als bedrijf een probleem hebben en dan zijn ze ook bereid tot die extra stappen".*

> *"De overwerk bereidheid die is enorm. Dus ook die mensen die hier al 20 jaar zitten die weten gewoon het is hollen of stilstaan. En hebben we geen materiaal en er komt weer aan, ja dan gaan we die zaterdag en zondag door. Want die systemen moeten op tijd de deur uit".*

A Chief Editor of Medianet adds:

> *"Wij zijn een soort programma dat in beweging komt als er een overstroming is [newsflash] ik hoef me geen zorgen te maken, dezelfde middag staat iedereen op de stoep, laat alles vallen, zoekt een oppas voor zijn kinderen en dat snapt iedereen".*

Besides commitment, key informants express that intrinsic motivation is another essential key for agility. The cases illustrate that intrinsic motivation means that employees show a motivational state in which they are attracted to their work and like what they do and not due to any external outcomes. The Managing Director of Be Young exemplify the motivation of their employees as, if you love your work and you are satisfied with it, it's more like a hobby instead of a job:

> *"..dus het is niet zo van ja maar mijn werkdag zit erop [..] en dat merk je ook wel bij de mensen. Er worden dan ook de leukste dingen bedacht, als ik om 8 uur vanavond het pand binnen kom dan wil ik nog wel op elke afdeling wat plukjes mensen zien. En dan gaat het niet om de uren, maar het gaat me meer om.. dan geeft het aan dat die mensen niet aan het werk zijn. Dat voelt op dat tijdstip niet vaak meer als werk [..] En wat gebeurd er [..] dan worden er creatieve programma's bedacht [dat doen mensen uit zichzelf]".*

Intrinsic motivation makes a difference in employees creativity, encourages risk taking and is vital for task performance. The Manufacturing manager of Medical Solutions, the HR manager of Medianet, a Division Director of Techniconsult and a Consulting engineer of Techniconsult explain the employees motivation as follow:

> *"De mensen die bij ons werken, die werken bij ons omdat ze bij ons willen werken en niet alleen voor het geld zal ik maar zeggen".*
>
> *"Je hebt de mensen en die zitten hier al heel lang en die zijn super gemotiveerd, die werken zijn eigen.. Die vinden het geweldig om in deze organisatie te werken en dat zijn model werknemers".*
>
> *"Wij zijn echt heel erg met ons vak bezig, wij vinden het leuk om dingen te bedenken en te ontwerpen [..] via ons komt het meeste werk binnen en dat heeft weer te maken dat je op de markt erkend wordt als persoon waar je graag iets mee wilt doen [..] We houden van het vak".*
>
> *"Onze werknemers die hun enthousiasme voor het vak en voor de markt afstralen, zowel naar binnen als naar buiten toe dat andere mensen dat weer oppakken en zo'n zelfde houding aannemen. [..] We hebben allemaal passie voor het vak [..] Ik vind dat toch wel een hele belangrijke onderscheidende component".*

In summary, the data provide an overview of eleven individual competencies that seem essential for operating in an agile organization, whereby seven competencies were proposed based on theoretical notions in the beginning of this research. The additional four individual competencies (craftsmanship, troubleshooting, commitment and intrinsic motivation) are generated extra from the data. However, commitment and intrinsic motivation are understood and evaluated more like behaviors (i.e. attitude and mentality of an employee) instead of a competency (see also definition competency of Mulder (2001) in appendix A.).

4.4 Proposition 2 – Organizational practices

As explained in the theoretical framework, an organization needs to specify which underlying organizational practices have to be implemented in order to develop individual competencies for future agility. As proposed earlier in this study, individual competencies for agility need to be developed by using organizational practices like staffing, training and development, performance management and competency-based pay. How these organizational practices contribute to the development of competencies in the examined industries is described based on our findings.

Staffing

The development of individual competencies needs a systematic identification and analysis of what an organization is going to need in terms of type and quality of workforce to achieve the organizations objective of being agile. It determines what mix of experience, knowledge and skills – individual competencies - is required to get the right people in the right place at the right time. In order to generate this competence mix for agility, the organizations attract individual competencies by using the organizational practice of staffing. Important to note, data display that the organizational practice 'staffing' has a close link with creating a scalable workforce in order to achieve organizational agility and is not focusing direct to develop individual competencies in the first place. It is more an indirect result. However, staffing is a source that could be used to obtain the right people with the right competencies for agility. For this reason, 'staffing' will be discussed as a component of competence development for agility.

Overall, the data show two different ways in which they attract the right individual competencies for agility: (1) the recruitment of temporary workers who possess these specific individual competencies which are needed in order to create agility on that moment of time or (2) select potential employees who possess the right individual competencies that fits agility. How these two different ways act in organizational practices will be discussed below.

The cases use a multiple range of tools concerning the staffing of employees. First, each organization has a practical tactic to achieve an open workforce planning in which they can switch between different necessary types of individual competencies. These tactics focus mostly on changes in the market (e.g. peaks and declines in the supply and demands), have a time prospect of a maximum of two years, are mostly simply to predict and are based on scenario planning. A manufacturing manager of Medical Solutions:

> *"Onze productieplanning heeft eigenlijk een vrij typisch patroon, in het najaar is het druk en in het voorjaar weer rustig. Daar kunnen wij ons wel op inrichten".*

Within this restricted strategic workforce planning the firms have an operational coordination on workforce planning based at the time horizon for which they are capable to look forward. However, this coordination is considerable centralized. In both Engineering and High-tech companies this central coordination is expressed in a coordination meeting in which project and line managers (Techniconsult) or line managers and directors (Electrodesign and Medical Solutions) together with the HR Manager have a short meeting on the employees deployment for upcoming projects and manufacturing.

Besides the coordination of workforce planning, overall it is still very difficult for the organizations to create an agile workforce planning because of the changing and unpredictable developments within the environment. E.g. sometimes the firm need individual competencies like innovative and problem solving when a new product or television program need to be introduced and sometimes they need the individual competency like stress resistance when a product need to be produced under time pressure or to create and set-up a television program before the competitor do. For instance, a manufacturing manager of Medical Solutions argued this as follows:

> *"De seizoenen van pieken en dalen zijn bijna allemaal hetzelfde, die kun je voorspellen. Dus daar kun je op inrichten, maar de puzzel om je er op in te richten die is nog nooit 100% gelegd. Dus wat is nou het plaatje wat ik met mensen moet doen om dit probleem te tackelen. Ik heb het puzzeltje nog niet kunnen leggen. Dus ieder jaar is het weer zo, moet ik mensen houden of afbouwen. Tot hoever moet ik afbouwen. Dus we hebben er nog geen echt sluitende oplossing voor".*

In order to create a minimum reserve of needed competencies, the firms build relations with suppliers of human resources as well as potential employers of the workforce. These partnerships offer extra workers – extra needed individual competencies - during hectic times. Besides – and more important – a partnership mostly means that a supplier of human resources knows the firm very well in the need of what kind of individual competencies are wanted. The HR manager of Techniconsult explains this partnership as follows:

> *"Voor de werving hebben we contacten met vaste bureaus, en dan zeggen we altijd van 'Dit is onze behoefte, kunnen jullie daaraan voldoen?' [..] Als ze aangeven dat het lastig wordt, dan besluiten we om breder te gaan, dan benaderen we ook bureaus die misschien minder met ons samenwerken. Dan gaat het om de juiste persoon [..] en waar die vandaan komt is even een bijzaak."*

The organizations implement this organizational practice so that they become able to hire temporary workers, who possess the required competencies, in peak times and dismiss workers in times of decline. By doing so, the firms attract extra competencies they miss or which are needed in order to achieve the business objectives and become more agile. Besides, all organizations have a choice in determining whether to perform activities internally or externally. Activities are outsourced to external providers in order to avoid large impacts of dynamics on the own workforce, to attract needed competencies which are not present in the firm yet and to reduces possible related costs. The HR manager of Techniconsult explains this process as follows:

> *"Als er werkdruk is [..] dan ben je blij dat je dan professionele mensen van een collega-bureau kunt binnenhalen. [..] Meestal proberen we eerst in te steken via de collega-bureaus, omdat je dan vaak alle benodigde kennis meteen vergelijkbaar hebt".*

Another alternative of external transition is by employing freelancers or temporary workers. This aspect is a common practice of the organizations in the Public Broadcasting sector as well as the Engineering organizations. The organization within the High-tech branch primarily uses temporary workers from regular suppliers in order to capture the dynamics instead of hiring specific individual competencies that are needed to become more agile. The HR manager of Medical Solutions described this process as follows:

> *"In onze organisatie maken we gebruik van uitzendkrachten. Deze uitzendkrachten bieden de mogelijkheid om meer flexibiliteit te genereren en dat we dus beter om kunnen gaan met de dynamiek in de omgeving.. tijdens drukke periodes huren we extra krachten en bij een daling in de productie laten we ze weer afvloeien".*

The firms in the Engineering industry primarily use freelancers or hire someone for temporary duty to a service for a limited of time. This for the reason that these freelancers possess of certain individual competencies that makes an organization more agile on that moment of time (e.g. during a special project). The HR manager and Consulting engineer of Techniconsult describe this procedure as follow:

> *"We zetten ook wel eens mensen in via de bureaus, net als 'HIB installaties [project] daar zijn 7 mensen ingevlogen en die komen variërend van ZZP-ers tot bureaus die personeel voorstellen".*

> *"Ik ben sterk voorstander van ZZP-ers omdat die een hele andere houding met zich meebrengen, dan de detacheerders. Ik heb nu inmiddels ervaring met ZZP-ers die gewoon twee keer zo hard werken als zeg maar mijn eigen mensen en veel betere kwaliteit leveren. [..] En dat geeft voor mij een soort van zekerheid dat ik in ieder geval de juiste kennis en kunde en de juiste houding en goede werkafspraken mee kan maken".*

According the Engineering and High-tech firms, it is still very difficult to manage the workforce planning. Managing the planning of needed competencies sometimes means choosing not to take on new work e.g. when the firm does not possess the individual competencies to carry out the job .

Concerning the hiring of (new) employees, all organizations use the selection tools job interview and assessment in order to evaluate if the worker possesses the required competencies for agility or to assess the presence of the person-organization (P-O) fit.

The Public Broadcasting industry mostly makes use of job interviews whereby the person-organization fit is the most important aspect for hiring. In this industry it is important that applicants match and share the same values and believes as the organization do. For instance, viewers of the broadcasted programs by organization Be Young are young and energetic. It is expected that employees of Be Young possess the same characteristics of the public in order to reach the audience. A Chief editor of Be Young:

> *"In ons aanname beleid [..] proberen we wel een samenstelling te hebben dat we voldoende jonge mensen krijgen".*

Moreover, data show that the three industries differ from each other in the hiring policy regarding personal characteristics. For instance, both Public Broadcasting firms illustrate that they prefer younger workers instead of older workers and that they select on that specific characteristic. Their opinion on this matter is that these younger workers are more energetic and more innovative and that they fit the business and industry better. A Chief Editor of Be Young expresses:

> *"In ons aannamebeleid zijn we natuurlijk [..] proberen we wel een samenstelling te hebben dat we voldoende jonge mensen krijgen".*

Unlike the Public Broadcasting firms, the Engineering and High Tech organizations like to hire older people because these older people are more experienced, have more expertise and craftsmanship. However, the different industries agree that an older management team is necessary for making important decisions, because of the experience they have. A Chief Editor of Be Young stated:

> *"De praktijk wijst uit dat wij bijvoorbeeld in het televisieoverleg waarin uiteindelijk wordt besloten wat we gaan doen.. eh dat daar niemand van onder de dertig bij zit".*

Besides the person-organization fit, the firms in the Public Broadcasting industry mostly hire through external networks, building databases of external potentials, preselecting good applicants and keeping them on file. By doing so, the firms have a shortlist of available employees which can be addressed quickly whenever it is needed. The HR manager of Medianet discuss this process as follows:

> *"Wij houden CV's bij van mensen die we gezien hebben, waarvan we denken van nou misschien.. maar daar hebben we nog geen geld voor [..] of dat we programmamakers laten scouten, want zij hebben echt een neus voor dat talent".*

The Engineering- and High-tech firms make also use of selection tools like job-interviews and assessments. However, the approach and characteristics of selection are different from the

Public Broadcasting firms. Instead of the person-organization fit, the Engineering- and High tech firms focus more on competence-based selection and hiring based on personality. A Consulting engineer of Techniconsult and The HR manager of Electrodesign illustrate the selection criteria as follows:

> *"Er wordt heel duidelijk gestuurd op zeg maar in de richting van het ontwikkelen van de competenties voor zover ze niet aanwezig zijn, het aantrekken van mensen die die competenties al met zich meedragen".*

> *"We zoeken gewoon goede mensen en dan zien we wie er tegenover ons zit en dat is een goed persoon in de vorm van hij beschikt over de goede opleidingspapieren en goede ervaring en het is gewoon een prettig mens [..] dan willen we daar graag zaken mee doen".*

The High-tech firm prefers to select applicants on competencies (which are needed in the organization in that period of time) and background. As the HR manager of Medical Solutions explains:

> *"Hij [Unit Manager] kijkt per unit wat heeft die unit op dat moment nodig [..] je selecteert daarop. Wij hebben ook vacatures gehad en daar hebben we toen 35 kandidaten voor gehad. En uiteindelijk degene gekozen omdat die de eigenschappen had".*

> *"Wat is nou doorslaggevend om iemand in dienst te nemen? Voor de indirecte zou ik zeggen competenties maar ook achtergrond. Dus ervaring [..]. Dus je kijkt nooit alleen maar naar competenties. Als je het goed doet, dan kijk je naar de hele setting".*

Moreover, assessments are used to test whether applicants possess the required competencies. A Recruiter of Medical Solutions stated:

> *"Kijk we hebben wel een standaard recruitment proces hoe wij dingen zouden moet doen. Maar als je bijvoorbeeld een high-potential functie moet invullen, dan moet iemand een assessment hebben gedaan waaruit dat ook gebleken is".*

Training and development

Each examined company offers training opportunities in order to expand the knowledge and skill set. In general, the used practices for competency development are: offer training opportunities for expansion the knowledge and skill set (through job rotation, learning on the job and role-playing), competence based training, the use of mastery or success experiences and coaching or verbal advice.

The Public Broadcasting firms generally make use of learning on the job and lectures of external experts. For instance, Medianet has made efforts in helping employees to look beyond their own expertise through training and job rotation. The HR manager of Medianet explains this practice as follows:

> *"Met behulp van onze interne mensen, maar ook extern, [..] bieden we trainingen aan om ook andere dingen aan te leren. We bieden bijvoorbeeld ook aan persoonlijke ontwikkeling [..] opleiding geven, dus wat we proberen is mensen op een onderwerp bij elkaar te zetten [..] zodat ze wat leren [..] en dat ze eens met elkaar praten, zo van 'wat doe jij eigenlijk' en 'oh ik kom morgen eens bij jou langs'".*

Be Young has a broad offering of training for their employees. With regard to the limitations in interchangeability between TV, Radio and Internet they offer training around cross medial working. In their training around career planning they make use of job rotation which allows employees to learn the job for a day on other shows or within other functions and meet other peers to share experiences and knowledge. Moreover, Be Young offers an internal talent program for (new) employees to develop and to specialize their talents. New employees which succeed the internal talent program are hired by the firm.

Success stories and sharing experiences are tools that are used in order to provide new knowledge. By doing so, employees have the opportunity to learn from experts about the best way of working. The Chief editor of Medianet explains this tools as:

> *"We geven mensen intern de keuze of bieden de mogelijkheid om zich bij te scholen. Ik organiseer hier met regelmaat [..] deskundigen die komen vertellen van 'god, het moet zo en zo'.. een aantal lezingen voor georganiseerd hier".*

The Engineering- and High-tech industry are focusing more on creating knowledge and developing needed competencies through competence-based training, job-rotation, cross-training and learning on the job in order to make employees' skills suitable to what the market currently demands. A Consulting Engineer from Techniconsult summarizes it as following:

> *"We hebben een verschuiving gemaakt van vakinhoud naar meer vaardigheden omdat daarom wordt gevraagd in de markt, het is niet alleen maar de techniek en inhoud leveren, het is onderdeel zijn van een proces. En daar bieden wij trainingen op aan, zowel interne als externe trainingen [inviting external expertise]".*

Also, the Engineering industry focus on specific competence development and introduce different trainings per year e.g. by using external firms to deliver training. An HR Manager of Electrodesign explains this concept by saying:

> *"Het is een traject dat wij in samenspel met het bureau 'Berenschot' hebben opgezet en wat meer gericht is op het oefenen van vaardigheden. Want de kennis die is vaak wel aanwezig, maar we willen door middel van platforms, de collega's ook laten meedenken. [..] Dus hou ze echt bezig met strategische vragen zodat ze ondernemerskwaliteiten kunnen laten zien. En de drie blokken die zij jaarlijks krijgen zijn 'Ondernemerschap', 'Situationeel Leidinggeven' en 'Persoonlijke effectiviteit' ".*

Whenever possible, both industries try to mix groups during competence-based trainings in order to share varied knowledge and expertise with each other. The HR manager of Techniconsult and a Senior Employee of Medical Solutions explain this by stating:

> *"Wij zorgen ervoor dat mensen gemixt worden, met name de in-company trainingen. [..] Dat is een prachtig treffen om kennis te nemen van de mensen uit de andere groepen. [..] ook met de doelstelling om van elkaar te kunnen leren".*

> *"Want je kunt dingen ook sturen.. En als ik maar, opleidingen voor die club en opleidingen voor die apart, dan gaat het nooit werken. Dus integreren en elkaar accepteren en leren kennen en zeker met een mentortraining, werkt dat gewoon ideaal".*

Moreover, mentoring and coaching is another alternative to increase the competence development in both industries in order to distribute crystallized knowledge to "younger" workers. By using i.e. (senior) coaches, competencies are better able to remain – at a constant level – within the organization, regardless of the fluctuations in the environment or in staff. Examples stated by the HR Manager of Electrodesign and the Production Manager of Be Young:

> *"We hebben een vorm van mentorschap en coaching om mensen gewoon ook op zichzelf en op hun werkproces te laten reflecteren".*

> *"De jongerenredacteuren [..] die kun je dan naar een wat volwassener programma sturen onder begeleiding van een senior redacteur".*

A Location Manager of Electrodesign and Unit Manager of Medical Solutions explain the firms' coaching and mentor trajectory as follows:

> *"We hebben breed door Electrodesign tegen iedereen gezegd van 'joh, je mag iemand uitzoeken die jou coacht'. En dan het liefst iemand.. niet iemand waar je tegenover zit, maar iemand uit een hele andere sector [..] die jou echt een spiegel kan voorhouden".*

> *"We hebben een aantal mentoren in de groep zitten. En mensen kunnen een training hebben voor mentor te worden, dus dat zijn een aantal vaste mensen die de nieuwe mensen in leren, zeg maar. Het is niet zo maar dat ik zeg, jij gaat bij Jantje zitten en die maakt je wegwijs. Nee het is echt mensen die een mentortraining hebben gehad".*

Performance management

With regard to performance management, the cases show a relatively similarity. All employees in the case organizations are being evaluating regular on their individual competencies and performance. Several organizational practices such as development paths and performance reviews are organized in order to complete necessary individual competencies. The HR Manager of Electrodesign stated:

> *"We hebben jaarlijks een functioneringsgesprek [..] mensen hebben dan gewoon gesprekken met de manager over hun ontwikkeling".*

More specific, the practices in this area focus primarily on broadening and deepening the individual competencies. For instance, during performance reviews, employees mainly were assessed critically on behavior and competencies. A Line manager of Medical Solutions argued:

> *"Tijdens functioneringsgesprekken [..] vaak bemoei ik me dan iets minder met de 'what acts', dus de resultaten die hij haalt. Wat met name voor mensen meer naar voren komt is het gedrag".*

The public Broadcasting firms organize also performance reviews but in a different way of working. The Production Manager of Be Young explains this procedure as follows:

> *"Wij zijn niet een organisatie die allemaal gaat opschrijven wat anders kan en dan één keer in het jaar in het functioneringsgesprek er met de zweep overheen slaan, want we willen de mensen dan ook de kans geven om zich op dat moment te verbeteren".*

Moreover the firms argued that during performance reviews competence development is one factor of discussion and is intended to encourage and motivate employees to perform on a higher level and to set-up career opportunities. For instance, Medical Solutions uses an item matrix where the employee is being assessed on a particular level of competency or

Techniconsult develop personal development plans in order to develop or deepen individual competencies. An HR Manager of Techniconsult explains:

> *"Alles wat met de verdere ontwikkeling van het kennisniveau te maken heeft, dat is eigenlijk altijd goed voorzien. Naast de opleidingsplannen hebben we ook de POP's [Personal Development Plan]. Als mensen over talenten lijken te beschikken krijgen ze ook al in een vroeg stadium een nulmeting, vergelijken we met een assessment, waar sta je nu?, hoe kunnen we je helpen om bepaalde vaardigheden verder te ontwikkelen?, welke vaardigheden zijn niet ontwikkelbaar?, om ook richting aan te geven hoe je je loopbaan gaat doorlopen".*

Furthermore, for performance improvement the organizations make use of the practice: giving and receiving of constructive feedback, although it is employees' own responsibility to ask for reflection. Constructive feedback is also used as a tool for performance management and is mostly gathered from peers. However, Medical Solutions also use the input of HR in the evaluation of employees. This for the reason that i.e. an HR Manager has an independent voice and an objective judgment. The HR Manager of Medical Solutions express:

> *"Die kerel [employee] die begint, heeft zijn gesprekken met zijn direct leidinggevende, nou dat is zijn feedback, daar doet hij het voor. Want misschien zit die direct leidinggevende ook niet helemaal goed en HR kan daar een waarde aan toevoegen door ze te challenge, om ze naar buiten te laten kijken [..] Daarom hebben wij call searcher in PM. Dus je hebt de leidinggevende, de harde lijn die doet jou beoordeling en die vraagt daar de input op uit van in dit geval van de leidinggevende van de quality man, die bepaalt de beoordeling, die heeft de eind call, dat is wel belangrijk om even te onthouden. En laten we zeggen de unit manager die geeft input".*

Overall, each organization focus on performance management with a special focus on the individual development, behavior and performance in order set goals around common performance and to apply improvements in competencies.

Competency-based pay / rewards & recognition

Data show that none of the firms use competency-based pay. Thus indicating that the firms in the examined industries do not focus on rewarding employees with increasing salaries or bonuses. The intention is to provide employees of a feeling of appreciation and valuation for showing required individual competencies. Providing employees a feeling of appreciation and recognition is seen as a critical factor to encourage preferred behavior and attitudes of employees. The organizations provide a feeling of appreciation through celebrating successes, demonstrating customer/client ratings, represent viewing figures (like organization Medianet and Be Young) or request employees to contribute in decision making. Celebrating successes is one way to reward employees for their effort, skills and input. The Location Manager of Electrodesign illustrates this practice as follows:

> *"Als er een opdracht kwam, zeker in die startfase, en als dat boven de tienduizend of de twintigduizend euro was, dan zeggen we 'oh eh, taart, dat is toch goed, moeten we stimuleren"*

Medical Solutions use a different way of rewarding. The High-tech firm shares success rates by using communication boards or discuss these features during town hall meetings. The Manufacturing Manager and Supply Chain manager of Medical Solutions express this by saying:

> *"we hebben hier mededelingen borden hangen, daar proberen we in ieder geval altijd een aantal dingen te laten zien. Het productieplan zal er altijd hangen, wat we gepresteerd hebben ten aanzien van het productieplan, de KPI op het allerhoogste niveau, dus hoe staan we er financieel voor en wie scoort waar. [..] Dus alle winstgevendheid kun je zien. Hoeveel systemen hebben we gemaakt, onze afdelingsbetrouwbaarheid nou ja alles staat erop. Die hangen we erop, dan hebben we nog the voice of the customer. Dus wat krijgen we uit het veld terug nou dat is leuk om aan de mensen terug te koppelen".*

> *"Elke 3 maanden hebben we een town hall meeting [..]. En daar vertellen wij heel eerlijk wat de status is, wat de bewegingen zijn, wat onze performance was. Wat we altijd melden is wat zijn onze financiële getallen hé, hoe staan we er financieel voor. Wat waren onze key performance indicatoren, dus waar hebben we het goed gedaan en waar wat minder goed gedaan".*

Besides presenting good results, all cases indicate the importance of their core values to support employees in making the right choices and to offer a stable core. An example: the employees of Medical Solutions possess an extensive form of pride about the product that they make. This pride is the organizations best core value and it uses this pride to support employees to perform at their bests. Moreover, the High-tech firm anticipate on this pride that employees are willing to go the extra mile without additional rewarding. A Line Manager of Medical Solutions explains this as follows:

> *"Onze werknemers zijn er trots op het product dat ze maken en de service die ze geven aan de klant. [..]. Dit komt dat het product patiënten helpt om de gezondheidzorg te verbeteren.*

Door deze trotsheid zijn de werknemers gemotiveerd om een betere performance te leveren en zich meer in te zetten".

Overall, it can be concluded that the organizations focus more on the corporate performance and respond to the intrinsic motivation of the employees instead of rewarding employees with compensation. However, each organization compensate extra working hours, working overtime or extra effort with i.e. leisure time for recovering. The HR Manager of Techniconsult explains this as follows:

"We hebben weleens projecten waar [..] 24 uur inspectie moet zijn. Nou dan maken we natuurlijk wel teams die elkaar afwisselen, en dat zit dan wel binnen de regelgeving, maar dat gaat dan ook 7 dagen in de week door, dus dan werken de mensen ook misschien meer dan 5 werkdagen. Maar daarna hebben ze heerlijk een stukje vrije tijd en geeft ze een beloning voor hetgeen ze gedaan hebben".

4.5 Proposition 3 – Strategic response to institutional pressure

Organizations have to respond in some way to perceived institutional pressures in order to survive in their external environment. This response is determined by the strategic choice. The strategic choice provides organizations several possibilities to manage with institutional pressures varying from active resistance to passive response (Oliver, 1991). Based on this perspective, this study proposes that: "The influence of the institutional pressures on the implementation of organizational practices for competence development (facilitating, hindering or neutral) depends on the response the organization chooses towards these institutional pressures (conform, innovate or defy)".

The interviews and the used documents has been scanned to find a similarity in institutional pressures faced by the organizations and whether these institutional pressures have an impact upon the implementation of the organizational practices for competence development. Overall, it can be concluded that the data do not offer a direct understanding about how institutional pressures impact the implementation of organizational practices for competence development and how the response of a firm influences this impact (facilitating, hindering or neutral). This is because the institutional pressures were not mentioned by the key informants in relation to the organizational practices for competence development. Although the key informants were asked to discuss the effect of institutional pressure on organizational practices and how they respond to them, the focus was more on available resources like money (as discussed by the Public Broadcasting firms), time (Engineering firms) and quality rules in the production process (High-tech organization). Therefore it is difficult to make a concrete comparison between the industries and to evaluate the impact of institutional pressures upon competence development. Nevertheless, it is possible to make a few connections to a number of organizational practices. A summary of impacts is discussed below.

All case organizations are compared based on the differences in the level of institutionalization. Both Engineering companies experience a relatively low level of institutionalization and seem to be less disturbed with the institutional pressures that take place. Most important is the generic labor law which is significant for all organizations operating in the Netherlands. An HR Manager of Techniconsult discusses:

> *"In Nederland is natuurlijk een hele goede bescherming van de werknemer. En vaak zit je als werkgever aan een meer lastige kant dan de werknemers. Bijvoorbeeld je hebt met ziekteverzuim te maken en re-integratietrajecten, dan zou je misschien wel als werkgever, en vanuit goed werkgeverschap dat vooropgesteld, zou je die processen soms anders willen laten verlopen, maar dan krijg je natuurlijk het hele ritueel van rapportages, nog een keer een bureau inschakelen en nog eens begeleiden [..]. Maar dan moet je toch dat hele pad doorlopen en dan kun je eigenlijk alleen maar meedoen. [..] Soms zijn het wel hele bureaucratische vormen om te doorlopen".*

Concerning to additional labor regulations the Works council is the most important institution and has a dominant role in the Engineering industry but do not have a hindering impact on processes. A Works council representative and HR Manager of Techniconsult and HR Manager of Electrodesign stated:

> *"Ik vind over het algemeen het overleg heel goed. We krijgen ook dingen ter beoordeling die we eigenlijk formeel niet eens op ons bordje liggen. We worden gewoon om onze mening gevraagd en als we daar ter zaken doende input leveren wordt dat meegenomen. Dus er wordt heel duidelijk gebruikt gemaakt van de OR in de zin van onze klankbordgroep. Er wordt ook gebruik gemaakt van de OR in gewoon top-down, het mededelen van wat we willen. [..] De meest effectieve manier van communicatie van de directie naar de werkvloer is via de OR. Daar zijn we ons van bewust. [..] Het kanaal is dat er ook naar ons geluisterd wordt als wij zeggen "ja maar de werkvloer vindt dit", dat we daar verder niet over gaan dim-dammen".*

> *"Er is ook een hele interactieve communicatie met de Ondernemingsraad".*

> *"Als een OR makkelijk met zijn onderneming mee gaat, dan lijkt dat geluk. Maar je kan ook zeggen dat een lastige OR houdt ook de onderneming scherp. Maar er zit wel een balans in.*

Hebben we geluk? Ja, het is zo'n cliché je krijgt de ondernemingsraad die je verdient. We creëren ons eigen geluk. [..] Wij overleggen heel veel met de OR en we zijn open met de OR. We zijn blij met de ondernemingsraad".

Overall, the Works council has a determining voice in how different processes are defined, e.g. how the trainings policy is organized and what involves the budget for educational programs. However, the Work council works closely together with the organization so that decisions are made in cooperation.

Electrodesign as well Techniconsult has their own organization specific labor guidelines. A Works council representative of Electrodesign stated:

"Wij zijn niet gekoppeld aan een vakbond die bepaald: 'dit jaar zullen we allemaal een uur langer of korter werken, of de salarissen zullen omhoog gaan, of dat soort zaken'. Dit ligt niet vast bij een dergelijke vereniging maar wordt door de organisatie zelf geregeld".

Furthermore, normative pressure comes from the educational institutions for Engineers. Since the Engineering industry is a knowledge based industry, they are dependent on the quality and degree in which employees are trained and possess of adequate knowledge. The Engineering firms will benefit from such educational institutions when they train and deliver well developed employees. An HR Manager of Techniconsult explains:

"De groep raadgevend ingenieurs moeten een heel erg goed gevoel hebben van welke ontwikkelingen zich voordoen op de markt: waar zijn we goed in?, waar heeft de markt behoefte aan? en matchen die twee met elkaar? [..] Nou dat betekent ook dat je heel veel interactie zoekt met studiecommissies, studieverenigingen en opleidingsinstituten. Wij proberen ook altijd heel veel ruimte te geven aan afstudeerders of collega's die promotieonderzoeken doen om zo terug te krijgen van welke bewegingen er zijn, naast natuurlijk daar zelf heel actief mee bezig te zijn".

In conclusion, the Engineering firms appear to choose for conformity as the most suitable method to possible institutional pressures and do not experience a specific hindering or facilitating effect regarding the implementation of organizational practices for competence development. However, both Engineering firms do experience a positive influence regarding normative pressures since professional institutions support to what extent Engineers are trained and possess knowledge (competence development) that is useful for the agile organization.

The Public Broadcasting sector experiences a higher level of institutional pressure and has a differentiated approach related to the level of impact on the organization and its image in the external environment. There exists a constant evaluation of influence on legitimacy. To a certain extent society influences the competencies an employee requires. For instance, because of the multi-cultural nature of society, employees are ought to possess competencies that help them cope with certain situations that, for instance, require knowledge about other cultures. With these competencies, employees can obtain legitimacy and add value to the company. Consequently, the multi-cultural nature of society influences also the content of the organizational practices like trainings and educational programs which are needed to obtain more knowledge about the multicultural society. Because of this, employees are expected to handle these organizational practices creatively and change practices when needed so they fit better to the needs of society. In other words, society constantly expects diversity. The employees can create diversity by approaching the situations with a creative point of view. Or another approach is to introduce diversity management in the corporate structure. Through i.e. diversity management departments can be a reflection of society. In this way, the programs can be adjusted to society's expectations more easily. For instance, a Chief editor of Medianet discusses:

> *"We proberen de multiculturele competenties van de medewerkers te verhogen. Dat betekend dat ze dus meer kennis van, over, en voor de multiculturele samenleving hebben. [..] Kijk hier bij de Medianet werken we over het algemeen met witte, oudere mannen, die allemaal in een bepaalde traditie komen van opleidingen en die zo hun vak uitoefenen. Maar die weten allerlei dingen niet, de kennis over de Islam, of de kennis over het Jodendom is redelijk beperkt. [..] Terwijl ik vind dat je daar, er zijn 1,7 miljoen allochtonen in ons land [..] dat het heel belangrijk is dat de medewerkers hier daar wat van weten, dat zij eigenlijk de programma's sterker kunnen maken en we die mensen daardoor beter door kunnen bereiken".*

Moreover, the normative awareness for legitimacy within the Public Broadcasting industry also plays a role in the presence of resources and especially the financial resources. The Public Broadcasting industry has a small budget to spend and therefore it is important that decisions regarding expenditures are made carefully. However, sometimes this will be mismatched. A Chief editor of Medianet discusses this situation as follows:

> *"Omdat alles uit de algemene middelen wordt bekostigd en niet meer zoals vroeger uit de doelheffingen, moet je dus aan de legitimiteit van het gebruik natuurlijk hoge eisen stellen.*

[..] bijvoorbeeld er is een enorme hoeveelheid directies, en ik wil niet heel populistisch meteen alle leaseauto's op gaan tellen, en alle bonussen en salarissen, maar je brengt je voortbestaan echt in gevaar".

Apparently, the scarce resource 'money' remains a matter for discussion. It is interesting to discuss that the small budget – or the wrong use of it – hinders the possibility to implement some organizational practices. For instance, when there is less money available to spend on employees development (training) or to offer attractive salaries for potential employees with excellent competencies or to reward employees for competence development, the organization will lose a certain competitive advantage. Moreover, the politics has also an important voice in the interference on the meaningful use of money since it can determine to allow more players in the industry, which amplifies competition for airplay and financial support. This competition results in scarce resources that should be distributed among more Public Broadcasters, which puts extra pressure on each firm in the industry. The Public Broadcasting firms could not always anticipate on these political decisions. The Chief Editors of Medianet and Be Young discuss:

"Hier [in Nederland] zijn er nog veel betuttelende politici, die het liefst ons willen beheersen".

"Vroeger zeiden ze van, de [Company name competitor] is een A-omroep dus die krijgt anderhalf miljoen en Be Young heeft veertig procent van de leden van een A-omroep dus die krijgt dan veertig procent van het budget. [..] Er werd dus niet gekeken hoe succesvol je bent op Internet etc. Nee, dat was gewoon, zoveel leden heb je en dan krijg je zoveel geld. Dus we hebben een grote achterstand opgebouwd qua financiën. Ondertussen is dat wel een beetje rechtgetrokken dus [..] hebben we weer mensen aan kunnen nemen en meer projecten kunnen doen".

In conclusion, some institutional pressures are stronger than others. Overall, both Public Broadcasting firms handle the institutional pressure by trying to be involved in defining the institutional context when it is needed and try to find innovative solutions in order to cope with these pressures.

Like the Public Broadcasting industry, the High-tech firm experiences a high level of institutionalization. The High-tech firm is exposed to a number of institutional pressures, such as the involvement of trade unions and the Works council. The Works council of Medical Solutions participate in decision making and focus on workers interest. A Works Council representative discusses their role as Works council as follows:

> *"Kijk wij als OR zitten niet op de stoel van het management. Het management moet dingen in principe goed afwegen en daartoe besluiten. Wij kunnen wel ideeën aanreiken en we zijn dan vaak, in de speelruimte die we hebben, kunnen we wel het verschil maken. Maar we kennen onze plek dan ook wel, in die zin. Dus als wij zeggen van 'en zo gebeurt het' dan is het maar de vraag of het zo gebeurd. Maar we kunnen wel dingen aanreiken en instemming geven. Bijvoorbeeld de 'urenbank' [organizational practice for time- and workload management] is een instemmingsaangelegenheid geweest, dus daar hadden we ook van kunnen zeggen: "dat willen we niet, dat doen we niet". Maar wij snappen ook dat het in business belang is, dus in die zin hebben wij de afweging gemaakt, dat we de medewerkers belangrijk vinden, maar ook de business en continuïteit dat we die belangrijk vinden. E dat dingen zorgvuldig geregeld moeten worden en dat zorgvuldig met mensen, dat moet hoog in het vaandel staan".*

Trade unions however are usually used as an information center whereby points of discussion are being deposited. A Works council representative of Medical Solutions discusses this cooperation by stated:

> *"We hebben onder andere de vakbonden: FNV en VHP2, dat was vroeger een vereniging voor hoger Medical Solution personeel, [..] en dan heb je de CNV en de UNI, dus dat zijn de vier bonden. Er zijn ook wel gesprekken vanuit het bedrijf met de bonden en ze doen sowieso de CAO onderhandelingen. Maar op de achtergrond, hebben we ook weleens ruggenspraak en ook weleens gesprekken met elkaar, dat we hen gebruiken als een vraagbank".*

However, data do not provide specific facts or figures concerning the rate of unionization in order to see the impact of these trade unions.

Concerning key informants, the Works council has a voice in how organizational practices are designed and use trade unions for assistance. However, a direct influence of the Works council and trade unions participation in the set-up of organizational practices for competence development were not mentioned by the key informants specifically.

In general, the High-tech firm experiences freedom in the fulfilling of processes, if only this within the framework of guidelines since they produce medical health systems that are associated with several rules and legislations. There are several institutions that control the operations and assess whether the firm produces follow guidelines. This institutional pressure is quite strong within the High-tech organization. This for the reason that the firm develops systems that affect the health of patients. The Supply Chain manager of Medical Solutions stated:

"Een barrière is dat zaken geregulariseerd zijn ofwel wij vallen onder allerlei wetgevingen omdat wij een apparaat in de markt zetten waarbij je mensen op behandeld en als jij een fout maakt, dan kan een mens overlijden omdat hij weet ik wat geëlektrocuteerd wordt of whatever, dat kan. Of je kan de verkeerde diagnose stellen, dat is net zo erg. [..]. Dus er zijn allerlei wetgevingen waar wij aan moeten voldoen waardoor het voor een heleboel geldt gij zult en gij moet. Ja, wij moeten alle weeklijsten invullen en het is niet even een kriebel, nee het moet met een blauwe pen en er mag geen streepje opstaan en als je er een streepje op hebt staat dan moet dat verantwoord worden [..]. Je wordt er helemaal gek van".

These production guidelines and quality standards demands employees to possess competencies like accuracy, adaptiveness, problem solving, innovativeness and are asked to possess knowledge about the right way of working in order to perform following the requested guidelines. The Manufacturing Manager of Medical Solutions explains this situation by saying:

"Dit zijn de regels en alles is heel strak. Dat maakt dus, als mensen heel strak moeten werken, dan moet je pietje precies zijn en conform".

Given that employees are deemed to possess special competencies for following the guidelines, the High-tech firm is demanded to train and educate their employees so that competencies and knowledge regarding the rules and legislations stay up-to-date. For instance, when a system does not meet the features of quality as requested by several institutions, it is expected that they will use their knowledge and competencies in order to solve and repair the system in such a way it will comply with the production requirements. In other words, employees are required to display a high degree of compliance. The Manufacturing Manager of Medical Solutions explains this situation as follows:

"Dat systeem is te duur om weg te gooien, dus [..] als ik zeg dat is niet goed dat je dan denkt 'huppakee geef me maar weer een nieuwe', je zal hem gewoon moeten repareren. Dan moet je iets verzinnen. En dat verzinnen moet dan binnen de kaders van de wetgeving [..]. Dus ja, er gebeurd echt heel veel binnen de techniek".

Like the Engineering firms, Medical Solutions has its own CLA-regulations. Within their own collective agreement, there is little room for maneuver but one does not experience any pressure from it because it is specifically written for Medical Solutions. However, sometimes it hinders the recruitment of talents. This for the reason that Medical Solutions has to compete with other firms who offer attractive secondary employment conditions like bonuses or a company car but here is no room in the CLA-regulations to meet these superior terms and conditions.

Consequently, it is difficult to attract experts and potentials when the competition on the labor market is high or own employees be tempted to switch over/turnover to a competitor. The HR manager describes this pressure as follows:

> *"Der zitten erbij die hartstikke goed zijn en die we willen behouden, maar die zeggen 'Ja dat is leuk voor jou, maar daar bij [Company name competitor] krijg ik een leaseauto en een vakgroep hoger en daar verdien ik gewoon €10.000 meer' en hij heeft gewoon gelijk. Dat is een lastige dynamiek. Je moet continu nadenken hoe kan ik in die setting [CLA-regulations] toch die winst creëren? En die mensen wel binnen trekken. En wat is de competitieve advantage van Medical Solutions ten opzichte van [Company name competitor]".*

A last institutional pressure that influences the development of individual competencies is the delivery capacity of well- trained and educated employees by suppliers of (temporary) human resources. Mostly, the High-tech firm makes use of a fixed supplier for temporary workers. Such a partnership means that the supplier of human resources knows the firm very well in the need of what kind of individual competencies are wanted. Thus, when the High-tech firm hires temporary workers via the supplier, they assume that the supplier delivers well-trained and educated workers with the required competencies, or finances a training so that these workers can be deployed quickly. An Unit Manager of Medical Solutions argued this as follows:

> *"Opleidingsmogelijkheden hangt af van hun werkgever. In dit geval [Name supplier] zullen dit moeten financieren. Iedereen krijgt van mij de mogelijkheid om te gaan studeren en opleidingen te gaan doen als het iets toevoegt. Als het niks toevoegt dan moeten ze met een goed verhaal komen dan zijn er ook nog wel mogelijkheden. Bijvoorbeeld: Waarom wil je nou vrachtwagenchauffeur worden of weet ik wat? Vaste medewerkers gaan iets makkelijker mee dan de inhuurmensen en dat heeft dan puur te maken met dat [Name supplier] dit niet financiert. En [Name supplier] is onze preferred supplier".*

Overall, it can be concluded that the High-tech firm experienced mostly coercive- and normative pressures. Medical Solutions handles the institutional pressure by a conformist behavior that refers to a passive or neutral response. More specifically, Medical Solutions complies with the rules and regulations and follows the coercive- and normative pressures.

Table 9. Summary of the findings

Topic	Finding
Added value of HR	*Similarities in importance of individual competencies for organizational agility.* Each case show that their employees are seen as an important asset within the organization and that they make a difference in the organizational performance. Moreover, all cases indicate that individual competencies of their workforce have a significant contribution to the process of agility. Besides the understanding of the importance of the HR asset, the cases indicate that individual competencies are needed to fulfill the implementation of the three elements for organizational agility.
Proposition 1	*Similarities in individual competencies for operating in agile organizations.* Multiple individual competencies are mentioned in the data, but the cases illustrate a relative similarity to a number of competencies that are related to the characteristics of agility, namely: adaptiveness, result orientation, problem solving, entrepreneurship, innovativeness and stress resistance. According the data, the presented individual competencies could be complemented by two other important core competencies: craftsmanship and troubleshooting. Besides, commitment and intrinsic motivation are not evaluated as competencies but are indispensable in the set-up of organizational agility. *Extra note in findings.* Learning orientation is proposed to be a competency for agility. However, the data show that learning orientation needs a specific explanation. By the cases, learning orientation is understood as a component of self-development, which is seen as someone's own responsibility. In contrast, all firms provide a range of development opportunities and try to stimulate personal growth since fast organizational learning is one element for achieving organizational agility. For this reason, learning orientation is an individual competency for achieving organizational agility with respect to someone's initiative to enhance one's own competence development.
Proposition 2	*Similarities in organizational practices for development individual competencies.* The cases use a multiple range of underlying organizational practices concerning the development of needed individual competencies for agility. In general the industries use two ways to obtain the necessary individual competencies for agility: develop existing competencies and/or hiring workers who possess these competencies. In essence, the cases implement four practices that contribute to the development/acquiring of individual competencies for agility: staffing, training and development, performance management and reward and recognition. Whereby staffing and training and development seem to be the most important practices for

acquiring individual competencies and which are most similar to each other across the industries.

Proposition 3 *Similarities in strategic response to institutional pressure.*

Overall, it can be concluded that the data do not offer a direct understanding about how institutional pressures impact the implementation of organizational practices for competence development and how the response of a firm influence this impact (facilitating, hindering or neutral). This is because the institutional pressures were not mentioned by the key informants in relation to the organizational practices for competence development. Nevertheless, it is possible to make a few connections to a number of organizational practices. In essence, each examined industry uses a conformist behavior for managing the institutional environment.

The Engineering companies experience a relatively low level of institutionalization and seem to be less disturbed with the institutional pressures that occur. Most important is the generic labor law which is significant for all organizations operating in the Netherlands. Overall, the Works council and educational institutions for Engineers are the most important institutions for the Engineering industry. In conclusion, they appear to choose for conformity as the most suitable method in order to cope to those coercive- and normative pressures.

The Public Broadcasting sector has a differentiated approach related to the level of impact on the organization and its image in the external environment. There exists a constant assessment of influence on legitimacy which impacts the presence of resources - especially the financial resources – and the way how employees are trained. Therefore, the coercive awareness for legitimacy is the most important institutional pressure in the Public Broadcasting industry. Overall, both Public Broadcasting firms handle the institutional pressure by trying to be involved in defining the institutional context when it is needed and use an innovative response for copying the institutional environment.

It can be concluded that the High-tech industry experienced mostly coercive- and normative pressures, like the influence of the Works council, quality standards for production process and CLA-regulations. Medical Solutions handles the institutional pressure by a conformist behavior that refers to a passive or neutral response. Medical Solutions uses the tool risk management and compliance and tries to fit in these pressures. More specifically, the High-tech organization complies with the rules and regulations and follows the coercive- and normative pressures.

5. Conclusion & discussion

This chapter will start with the overall conclusions concerning the propositions. This will be followed by a further detailed discussion about the findings from this research; the findings will be linked to the relevant literature, and the relevance of findings towards organizational agility will be discussed. Besides, this conclusion and discussion chapter will include a number of hypotheses based on these findings. These hypotheses can serve as input for future research.

Conclusion

This study is designed in order to develop a new theory. As a result, this study has the objective to contribute to additional theory development in the rather new research area of agility. More explicit, this research attempts to formulate reasonable hypotheses which could be tested in future research. Besides, the outcomes of this study are expected to be interesting for organizations who operate in a dynamic environment so that they have an insight in the main drivers of agility, which might help improve their position and consequently increase the chances of survival.

Organizational agility is hypothesized to be shaped by the three organizational processes as mentioned before. Accordingly, the presence of organizational agility will lead to survival within a dynamic environment (e.g. Nijssen and Paauwe, 2010). According the RBV reasoning this study believes that the human resource factor plays also a key role within the process of achieving organizational agility. Hence, this explorative research was designed to explore the added value of human resource in the context of organizational agility. The goal of this study was to gain more insight into the profile of individual competencies that are essential to operate in agile organizations. Moreover, it determines which organizational practices are implemented in order to develop the individual competencies in the context of organizational agility and how this is formed in the setting of high or low degrees of institutional pressure the organizations experiences from the environment. In summary, this study aims to examine how organizations can survive in the dynamic environment in which they operate in on the basis of individual competencies. Overall, in this study three research questions are central:

What kind of individual competencies are needed to contribute to organizational agility?

Which organizational practices are present in agile organizations that help achieve and develop individual competencies, which contribute to organizational agility?

In what way do institutional mechanisms facilitate or hinder the creation of individual competencies in agile organizations?

Before a final conclusion can be provided, three propositions needed to be formulated in order to guide the research. These three propositions are framed by using relevant academic literature and were used to analyze the data. The data was obtained by using semi-structured interviews among 40 key informants divided over three different industries, desk-research and document analysis. To guarantee the quality of the research, attention has been given in the data collection to construct validity, external validity and reliability. Hence, the data was analyzed via systematic coding and cross-case analysis.

The first objective of this paper was to identify a number of individual competencies that are needed to operate in an agile organization and which contribute to a level of organizational agility studied in three industries (proposition 1). The data show that an organization should focus on individual competencies of the workforce since it would make a difference whether an employee is capable to participate on the dynamics of the organizations environment. Besides, the workforce seems to be an important asset for sustainable competitive advantage for each examined organization. Based on the five case studies a conclusion can be made that some specific individual competencies are present in organizations which interact with a high level of dynamism and seem to be contributing to organizational agility. Although a lot of individual competencies are mentioned in the data, the cases illustrate a relative similarity to a number of competencies; problem solving, adaptive, innovative, stress resistance, entrepreneurship, result orientation, craftsmanship and troubleshooting. Furthermore, commitment and intrinsic motivation seem to be important aspects in the process of organizational agility. As the data illustrate, commitment and intrinsic motivation are not evaluated as competencies but are assessed as representing conducts / behaviors that are indispensable in the set-up of organizational agility. Still the discussion exists that it is hard to interpret what the difference is between behavior and a competency. However, since commitment and intrinsic motivation in this study are seen as two aspects (behavior) that leads to a preferred result, it can be determined that commitment and intrinsic motivation are evaluated as behaviors instead of individual competencies (see also the discussion of Mulder 2001, appendix A).

Finally, learning orientation was proposed to be a competency for agility. A special explanation of this individual competency is required since the data show that learning orientation is understood as a component of self-development which is seen as someone's own responsibility and learning orientation is assumed as an indirect needed competency for operating in an agile organization. However, obviously learning orientation is an important aspect where agile organizations give a lot of attention to since fast organizational learning is one element for achieving organizational agility. Given this perspective, it can be evaluated that learning orientation seem to be an important individual competency for operating in an agile organization but it is an employee's choice to enhanced this orientation.

In conclusion, enough similarities have been found in order to understand this studies' believes and proposition regarding the usefulness of individual competencies in the context of organizational agility. In summary, the data provide an overview of eleven individual competencies that seem essential for operating in an agile organization, whereby seven competencies were proposed based on theoretical notions in the beginning of this research. The additional four individual competencies / behaviors (craftsmanship, troubleshooting, commitment and intrinsic motivation) are generated extra from the data.

The second objective of this research was to recognize which underlying organizational practices have to be developed or implemented in order to develop individual competencies for future agility (proposition 2) and consequently to gain sustainable competitive advantage. In the data the overarching principle exists that the development of individual competencies needs a systematic identification and analysis of what the organization is going to need in type and quality of workforce to achieve the organization objective of being agile.

In essence, the examined industries obtain the necessary individual competencies for alignment through developing existing competencies and hiring workers who possess these competencies. The cases use a multiple range of tools in order to generate this competence mix for agility. Overall, the firms use the organizational practices as proposed in this study namely staffing, training and development, performance management and competency-based pay. These organizational practices includes activities that are focused on (1) the practical tactic to achieve an open workforce planning, (2) building relations with suppliers of human resources (3) external transitions by using i.e. freelancers, (4) select and hire on individual competencies, (5) competence based training, (6) developing a broad skill base (e.g. through cross training and job rotation) to make interchangeability possible and (7) performance management in order to set goals around common performance and to apply improvements in competencies. Unlike what was expected, the firms do not use competence based pay in order to stimulate the development of individual competencies but is a critical factor to encourage preferred behavior and attitudes of employees. The firms in the examined industries indicate that none organization is directly focused on rewarding employees on the basis of targets and by increasing salaries or giving bonuses. The intention is more to reward employees by providing a feeling of appreciation and recognition for showing preferred competencies and behaviors.

In summary, it can be concluded that each firm in this study uses tools in order to contribute to employees' development of individual competencies for organizational agility. Still there is one interesting topic left. The data do not show that each organization implements controlling HR systems which focusses specific on the development of individual competencies for achieving organizational agility. However, according the data across five firms, a similarity of eleven individual competencies for agility is established. Apparently there must be a present factor which ensures that these competencies are (already) developed in agile organizations.

The last objective of this study was to define the strategic response to the influence of the institutional pressures on the implementation of organizational practices for competence development (facilitating, hindering or neutral) in order to be agile (proposition 3). As told in previous chapter, data analysis provided not enough similarities or arguments in order to give a sufficient overview about how institutional pressures impact the implementation of organizational practices for competence development and how the response of a firm influence this impact. Although, it was possible to provide a few connections or to find some similarities to a number of organizational practices.

In essence, the Engineering companies experience a relatively low level of institutional pressure and seem to be less concerned about consequences. For this reason they are not concentrated on possible responses than just conforming. The firms within the Public Broadcasting sector face a relatively high level of institutional pressure. These pressures mostly exist through the constant assessment of the companies' image in the external environment and the impact that institutions have on the needed resources such as money. These institutional pressures motivates the Public Broadcasting firms to take a more differentiated tactic related to the level of impact on the organization. By centralizing risk management and building a culture in which risk assessment takes place they are able to control the impact on the legitimacy of the organization. Overall, both Public Broadcasting firms mostly handle the institutional pressure by trying to be involved in defining the institutional context when it is needed. Therefore, the Public Broadcasting firms use a 'innovative' response for copying the institutional environment in relation to the implementation of organizational practices. The High-tech industry experienced mostly coercive- and normative pressures during the implementation of organizational practices, like the influence of the Works council, quality standards for production process and CLA-regulations. The High-tech company is highly institutionalized. They experienced mostly pressures from the strict rules and legislations in the production process which employees demands to exploit specific competencies and knowledge and quality of competencies that suppliers of human resources deliver to the company. There exists little room to maneuver and therefore they handles the institutional pressure by a conformist behavior. This behavior refers to a passive or neutral response and uses the tool risk management and compliance in order to try to fit in these pressures. More specifically, it complies with the rules and regulations and follows the coercive- and normative pressures.

Taking all observations in consideration, it can be established that building an agile organization is building a constant strategy which include a set-up of a stable core (individual competencies) and alignment of dynamic capabilities in order to provide multiple range of strategic options. This study has tried to show that by introducing HR systems –implementing organizational practices- that promote the development of a human capital pool possessing a range of specific individual competencies, are able to engage in a wide variety of behavior so that organizations could achieve a constant and stable strategy that copes with market dynamism. In other words: an employee who operates in an agile organization should possess individual competencies which enable the employee to i.e. produce televisions today, but bake hamburgers tomorrow. By using this strategy an organization is focusing more on the long term and align internal resources to organizational agility in order to achieve a strategy that is suitable for multiple and changing situations.

Discussion

In this discussion paragraph, a short reflection will be given on each proposition. The literature as presented in the theoretical framework and the results on the case studies will be used as evidence. Moreover, because this study is of explorative nature it is difficult to provide extensive answers to the propositions. For this reason, after discussing each proposition a possible hypothesis for future research is formulated.

First central research question

The individual competencies in proposition 1 are focused on the first central research question. Hence, the outcomes found in the cases in relation to their possible impact on agility will be first discussed.

Proposition 1

Dyer and Shafer (2003), Plonka (1997) and Van Assen (2000) made an effort in defining a set of individual competencies that a workforce is ought to possess in order to operate in an agile organization. Their studies result in an extensive set of different individual competencies but this research tried to determine a combination of the most important individual competencies for operating in agile organizations. With regards to the combination of competencies, proposition one was described as follows: *"In order to operate in an agile organization, the following individual competencies are required: problem solving, learning orientation, adaptive, innovative, stress resistance, entrepreneurship and result orientation".*

As discussed in the findings paragraph, the most common similarities in the totality of individual competencies for operating in an agile organization are: problem solving, adaptive, innovative, stress resistance, entrepreneurship and result orientation. Moreover, after doing the case studies the aspects craftsmanship, troubleshooting, commitment and intrinsic motivation seem also important characteristics for future agility. Since there is little literature know about individual competencies for agility, there is still no widely accepted profile of individual competencies that are useful or required for only these individuals that operate in an dynamic environment and which are expected to be agile. Since limited literature exists in order to support the findings, the observations in this study will be reflected by giving reasonable argumentations on the possible influence of each finding on organizational agility.

Problem solving has been mentioned by the key informants as a needed competency for agility since it is important that an employee is capable to identify potential problems in the business process and solve this independently or in collaboration with coworkers. Because agile organizations constantly have to deal with changing situations in the business environment and constantly have to react to those changes, it is logical that these organizations expect their employees to possess the set of skills which allows them to see opportunities and cope with problems independently. Besides this argumentation, agile organizations mostly operate in flexible core business processes or in a fluid organization design which requires employee initiative to identify problems and solve them autonomously. These approaches are in line with the work of Plonka (1997) and Dyer and Shafer (2003) which state that a flexible employee needs to be generative and able to handle problems on the work floor. Besides, problem solving empowers risk awareness which is important to oversee strengths and opportunities for a better workforce alignment.

The data indicates that the individual competency innovativeness is important. Van Assen (2000) describes “being innovative” as the degree to which an individual initiates, implements, realizes or early adopts change, improvement and renewals and is able to generate innovative solutions for unpredictable conditions. An innovative workforce results in a better handling of new technologies, procedures and changing circumstances. In other words, if one wants to react on unpredictable situations, it is necessary that one possesses insight and creativity in order to create a matching solution to the problem. It is also important that one is original and creative in problem solving in order to make it difficult for the competition to react.

The competency adaptiveness is defined by the key informants as the ability to change behavior style when problems arise, being comfortable with new responsibilities and the ability to act across several departments in order to achieve a stated goal – working interdisciplinary. This observation is in line with the study of Dyer and Shafer (2003, p. 15) in which it is argued that an adaptive employee for marketplace agility should postulate “multiple roles, move quickly from role to role and engage often and easily with others with a singular focus on task accomplishment”. This argumentation is confirmed by the study of Youndt, et al. (1996) in which they argue that achievement of manufacturing flexibility, requires developing and maintaining a scalable workforce, ‘‘an adaptable workforce that can deal with non-routine and exceptional circumstances’’.

Since the organizations operate in a dynamic environment and have to deal with non-routine circumstances, a sense of uncertainty for employees arises with regards to the content of their work, their workload and the sustainability of their job. When employees are insecure on these issues they look at the organization to provide another form of security (Dyer and Erickssen, 2006). The firms understood that it demand employees to be able to deal with stress and chaos and that they should be capable to take risks. Therefore, the data suggest that the competency stress-resistance is very valuable in order to be agile.

Although Van Assen (2000) stated that entrepreneurship is not a basic individual competence attribute, the firms define entrepreneurship as an important competency for agility. Van Assen (2000) quotes that “the bipolar personality characteristic "conservative-entrepreneurial" is one of the 16 personality characteristics distinguished by Cattell (1973). Entrepreneurial behavior is highly based on the following set of basic individual competence attributes: representation, independent functioning, initiative, willingness to change and improve, service sensitivity, problem solving, and stress resistance. But these attributes are not sufficient to discriminate between entrepreneurial individuals and non-entrepreneurial innovative individuals. For that, a description of personality characteristics is also necessary” (Van Assen, p. 148). Given this argumentation, Van Assen stated that entrepreneurship cannot be specified as an individual competence and that it is more characterized by a set of basic individual competence attributes, combined with personality characteristics, skills and knowledge. However, the key informants evaluated entrepreneurship as an individual competency for agility and describe the competency as follows: an entrepreneurial employee identify and convert opportunities into strategies and improvement or renewal activities that contribute to better corporate performance. In other words, entrepreneurship could be evaluated as being proactive. Employees who are proactive are capable to initiate and improvise on unpredictable situations. “Entrepreneurs” constantly and actively search for marketplace chances, indicate possible threats and start actions to stop these threats. Weick and Quinn (1999, in Dyer and Shafer, 2003, p. 16) add to this that “entrepreneurs” generate these ongoing modifications quickly, strive to reduce the time between discovery and execution close to zero, but also creatively, relying on previously utilized procedures only when they are clearly appropriate (Weick, 1998). Therefore, it can be concluded that entrepreneurship is an individual competency which can be distinctive to the market and is an important element in the battle against the competition.

Like entrepreneurship, the key informants indicate that the individual competency result orientation adds to a pro-active attitude of the employee. Overall, result orientation is defined as actions and decisions towards the actual realization of expected results. Think ahead. A person's proactive behavior initiates that an employee is engaged to make an extra step in hectic times and facilitates the process of turning knowledge into actions towards the actual realization of expected results.

Besides the above presented competencies two other core competencies seem very important according the data: craftsmanship and troubleshooting. In essence, all organizations argued that "craftsmanship" is the individual key competency for a workforce which operates in a dynamic organization. "Craftsmanship" refers to a special expertise that is usually been engaged through experience. More specific, "craftsmanship" is the extent to which one possess professional knowledge and skills that are required to perform the job adequately. According the data, "craftsmanship" ensures that an employee is able to capture on the fluctuations of the dynamic environment, is capable to switch faster on activities, is able to realize a faster task completion because there is less training needed and is therefore an important element for agility. However, this reasoning is in contrast to the research of Dyer and Shafer (1998). Dyer and Shafer argue that a level of interchangeability of the workforce is important in order to be agile as an organization. Dyer and Shafer (1998) also recognize the constraints that influence interchangeability. These constraints are commonly linked to employees that having specific functional skills or expertise (craftsmanship). For example, in order to operate in the Public Broadcasting industry specific skill sets are required. For instance, an employee of organization Be Young has the skills and capabilities to work at the radio station, but he might not have the right set of skills and capabilities to work as a journalist at the television broadcast department of organization Be Young. This is the same for Engineering companies. An engineer on Installations is totally different from building management or geophysics. In contrast, the High-tech organization mostly performs manufacturing task which can be executed – after a short learning curve- by every person. These tasks involve low-skilled positions and are easy to interchangeable. However, Medical Solutions also performed high-skilled tasks like product development and engineering projects whereby interchangeability is difficult. Although, there is internal mobility between projects in the same field of expertise. Besides the negative side of "craftsmanship" it has also a positive side. Having employees with an explicit and scarce talent/expertise is beneficial to impress competitors. Given this reasoning it can be concluded that "craftsmanship" is an important element for being distinctive from the competitor and being attractive for potential customers but it hinders the interchangeability of employees across different tasks in agile organizations but a distinction can be made between specialists and more generic profiles. Assuming that craftsmanship is an important individual competency for future agility lead to a formulation of a first hypothesis for future research:

Hypothesis 1: *"The individual competency craftsmanship has a positive influence on interchangeability which is important to achieve organizational agility".*

But the main question is how craftsmanship can be generated. The data indicates that employees who possess a certain degree of craftsmanship are employees who are employed for a longer period of time in either the organization or the industry. The High-tech and Engineering organizations are reasonable examples. These organizations have a low level of turnover, employ "older workers" with a lot of expertise and therefore they possess a high knowledgeable workforce. That craftsmanship is created by long tenure is an interesting assumption. We can conclude from this that (1) craftsmanship is generated from older employees (2) who possess a high degree of expertise and (crystallized) experience. However, the data of the Public Broadcasting firms indicates that they prefer "younger" people in their hiring policy because they are more energetic and more innovative than their older equivalents, which allows them to better reach their business field. Regarding important decision-making, however, the different industries agree that an older management team is required because the older members of the management team have more experience. Nevertheless, it is argued that "older workers" stagnate earlier when sudden changes are implemented. Based on these data, a more nuanced conclusion can be drawn which states that a person's age influences the set of required individual competencies for organizational agility. Based on this assumption a second hypothesis for future research could be outlined:

Hypothesis 2: *"Age has a positive effect on the degree of presence of individual competencies for agility".*

Besides the competency "craftsmanship", the key informants of the sample mentioned a second essential key competence; "being a fireman" also called troubleshooting. Key informants explain "being a fireman" as being reactive, having one goal and be able to react fast on unpredictable situations. Because all organizations operate in a business environment where time is a key resource and competitiveness a constantly moving target and where the organizations face the inevitability of constant change, the competency of being reactive and respond rapidly on developments is required. A line manager of Medical Solutions even suggests that the competency "be a fireman" is the success factor that makes agility fruitful in their organization and it provides multi-employability. This finding is an interesting outcome since troubleshooter (reactiveness) is a contradiction of the proposed individual competency "being proactive". But although proactivity and reactivity are contradictory to each other, these competencies are required for an agile attitude. This enables the employee to adapt quickly to its direct environment. According to Hoekstra and van Sluijs (2007) pro-activeness is an important competency for agility since it recognize and assess risks, problems and obstacles in the business process. Besides it is a capability to assess the impact on individuals and activities in the organization and its environment whereupon an organization could act. Assuming this perspective, it can be concluded that an agile organization needs employees who are not only weathermen (being proactive and try to predict situations) but who are also firemen (respond quick to unpredictable situations - troubleshooting). Given this reasoning, a third hypothesis for future research could be addressed:

Hypothesis 3: *"In order to achieve organizational agility, organizations both possess weathermen and firemen".*

Commitment and intrinsic motivation are mentioned as two other essential aspects for agility. Important to note, the key informants evaluated commitment and intrinsic motivation not as individual competencies but it can be assessed as representing conducts / behaviors that are indispensable in the set-up of organizational agility. In essence, commitment and intrinsic motivation are components that are in line with each other. Key informants stated that commitment results in 'willingness to make an extra step' and it creates a shared mindset. In other words, when an employee shows commitment, he or she is emotional attached and involved to the organization. Key informants discuss it results in an employees' loyalty and which employees are more likely to willingly contribute to the organizational performance and even do more than it is expected from them. Moreover, key informants argued that commitment is useful in hectic times, when working overtime is required, the workload is high and extra effort is needed. More specific, the key informants stated that commitment is important for generating flexibility in the business process. For instance, all examined organizations manage the numerical flexibility. Handling the workload is closely connected to the focus on output control by all companies and requires the employee to exert committed behavior when this is necessary. This workload management is mostly reflected in working overtime, stretching employees in their workload and applying flexible working hours. In other words, if an employee is willing to take this extra step (being committed), the organization will have a wider range of employability and it will be better in coping with the workload. This enables the organization to be agile in unpredictable situations.

Besides commitment, key informants express that intrinsic motivation is another essential key for agility. The cases illustrate that intrinsic motivation means that employees show a motivational state in which they are attracted to their work and like what they do and not due to any external outcomes. In other words, intrinsic motivation facilitates one's willingness to take risks which is an important aspect to cope with unpredictable situations. Hence, intrinsic motivation makes a difference in employees creativity, encourages risk taking and is vital for task performance. Assuming that commitment and intrinsic motivation are important in representing conducts / behaviors that are indispensable in the set-up of organizational agility lead to a formulation of the fourth hypothesis for future research:

Hypothesis 4: "The degree of employees' commitment and intrinsic motivation have a positive effect in the set-up of organizational agility".

Finally, learning orientation was proposed to be a competency for agility. In the cases, learning orientation is understood as a component of self-development which is seen as someone's own responsibility. This is an interesting finding since Nijssen and Paauwe (2010) suggested that fast organizational learning is one element for achieving organizational agility. Fast organizational learning refers to the organizations' knowledge reservoir, "the capacity to constantly create, adapt, distribute and apply knowledge‟ (Dyer and Shafer, 2003, p.14). In other words, organizational knowledge creation stands for having the right knowledge at the right time in order to respond proactive to unpredictable circumstances in the dynamic environment. Thereby, organizations should manage the constant creation, adaptation, distribution and application of this knowledge (Nijssen and Paauwe, 2010, p. 16) and should make knowledge available that is created by individuals through experience and knowledge development, so it can connect to an organization's knowledge system (Nonaka and Von Krogh, 2009, p. 635). According these approaches it seems reasonable that learning orientation is one important individual competency in order to facilitate the knowledge creation process of an agile organization. Data suggest that knowledge creation is indeed an important aspect in the creation of organizational agility. Given this perspective, data provide sufficient evidence that helps to support the proposition that someone's learning orientation is an important individual competence for agility but still it is an employee's choice to enhanced this orientation. Given this reasoning, a fifth hypothesis for future research could be addressed:

Hypothesis 5: "The individual competency "learning orientation" has a positive influence on the creation of new organizational knowledge".

Second central research question

The organizational practices in proposition 2 are focused on the second central research question. Hence, the outcomes found in the cases in relation to their possible impact on the development of individual competencies for agility will be discussed.

Proposition 2

In the study of Van Assen (2000) it is discussed that in order to build strategic distinctive competencies for agility individual competencies must be built. Therefore, organizations must continuously invest in and improve individual competencies. For this reason, it is essential to implement certain activities that accomplish a fit between existing individual competencies and business needs and empower the workforce to achieve alignment with the dynamic environment (Wright and Snell, 1998). Dyer and Shafer (1998) argued that specifically four organizational practices (including its sub-activities) contribute to the development/acquiring of individual competencies for agility: staffing, training and development, performance management and competency based pay. With regards to the use of organizational practices for the development of individual competencies for organizational agility, proposition two was described as followed: *"In order to develop individual competencies for future agility, an organization should implement organizational practices regarding staffing, training and development, performance management and competency-based pay".*

In general the examined firms indicate obtain the necessary individual competencies for agility through developing existing competencies and/or hiring workers who possess these competencies. In order to develop existing competencies, the cases use a numerous set of organizational practices that concern: training and development and performance management. The organizational practice staffing is used to hire workers who possess the required competencies or to ensures that people with the right knowledge and skills are in the right place doing the right things right. The influence of each organizational practice to individual competence development will be discussed below.

The cases use a multiple range of tools concerning the staffing of employees and display that the organizational practice 'staffing' has a close link with creating a scalable workforce in order to achieve organizational agility and is not focusing direct to develop individual competencies in the first place.

First, each organization has a practical tactic to achieve an open workforce planning. Within this restricted strategic workforce planning the firms have an operational coordination on workforce planning based at the time horizon for which they are capable to look forward. However, this coordination is mainly centralized which makes it more difficult to switch quickly in changing situations, because everything needs to be approved at corporate level. Having enough individual competencies and keeping them 'on stock' is a good solution for this. In order to create a minimum reserve of needed competencies, the firms build relations with suppliers of human resources as well as potential employers of the workforce. These partnerships offer extra workers during hectic times or deliver employees that can offer the needed individual competencies for agility. The organizations implement this organizational practice so that they become able to hire temporary workers, who possess the required competencies, in peak times and flow off workers in times of decline. By doing so, the firms attract extra competencies they miss or which are needed in order to achieve the business objectives. Besides, all organizations have a choice in determining whether to perform activities internally or externally. Activities are outsourced to external providers in order to avoid large impacts of dynamics on the own workforce and to reduces possible related costs. Another alternative is primarily use freelancers or hire someone for temporary duty to a service for a limited of time. By doing so, organizations are able to switch on individual competencies that are not present in the organization on that amount of time. Besides, hiring someone for temporary duty has the positive effect that other employees can learn from it. Although, with respect to these staffing patterns (core vs. contingent employees), Dyer and Shafer (1998) argued that agile organizations face a dilemma. On the one hand, they need to be able to flex the types of employees they have to adapt to changing business conditions. On the other hand, contingent employees, especially agency workers and contractors, are difficult to incorporate into the agile way of operating because of the training period.

Concerning the hiring of (new) employees, all organizations use the selection tools job interview and assessment in order to evaluate if the worker possesses the required competencies for agility or to assess the presence of the person-organization (P-O) fit. P-O fit is described by Chatman (1991) as a hiring practice that emphasizes the compatibility between organization and employee characteristics. It is often measured in terms of the congruence between organizational values and beliefs and individual personality, values and needs. The use of the P-O fit is in line with the study of Van Assen (2000) where it states that in the selection of new employees that must entail new individual capabilities, e.g. renewed skills, knowledge and competencies, it is essential that individual norms, values and personality characteristics are taken into account in relation with the job specification and the internal and external organizational environments. The Big Five personality traits, for instance, is a well-known model which identifies and tests what kind of personality characteristics a person has (Barrick and Mount, 1991). The Big Five model includes the following personality factors and their constituent traits: extraversion, emotional stability, agreeableness, conscientiousness and openness to experience. In example, by using this model organizations are able to identify needed personal characteristics across applicants and only select those candidates that meet the P-O fit. More specific, it is not only about attracting the desired individual competencies, but also about whether the type of character and norms and values of the person fit the agile organization and the dynamic environment in which the organization operates. Based on these assumptions, a next hypothesis can be drawn:

Hypothesis 6: *"Testing 'The Big Five' personality characteristics during selection procedures (i.e. by using personality assessments) has a positive influence on assessing whether a person meets the P-O fit".*

Besides the organizational practice staffing, data show that the organizational practices among training and development are implemented in order to develop the existing competencies. Practices that are focused on training and development can be used to enhance self-efficacy levels among employees – enhance a person's belief about his or her ability and capacity to accomplish a task. In other words, training and development provide the opportunity to reinforce competencies and to develop expertise. Dyer and Shafer (1998) provide several ways by which self-efficacy can be amplified: (1) Through job rotation, learning on the job and role-playing. These training instruments let employees experience and practice how to deal with specific job situations. These exercises will improve employees' professional identity. (2) Competence based training which specifically focuses on those competencies which need a certain refinement or should be developed. These competence based trainings are given to achieve a better in placement of the workforce. (3) The use of mastery or success experiences and coaching or verbal encouragement to distribute crystallized knowledge over "younger" workers. By using (senior) coaches or mastery experiences, competencies are better able to remain – at a constant level – within the organization, irrespective of the fluctuations in the environment or in staff. All of these methods recommended by Dyer and Shafer (1998) are included in training programs and are implemented by each examined firm with the goal to increase levels of employee self-efficacy and consequently to refine individual competencies that are common in the firm. While the firms offer several resources for training and development opportunities, we see in the individual competencies context that learning orientation is understood as a component of self-development which is seen as someone's own responsibility. This is in line with the theory of Dyer and Shafer (1998, p. 29) suggesting that "While agile organizations provide the resources, employees are held responsible for their own learning and for staying on the leading-edge of their fields (or bearing the consequences if they fail to do so)". However, this would not mean that the stimulation of learning orientation is totally absent in the creation of agility since knowledge creation is seen as an important element of organizational agility (Nijssen and Paauwe, 2010). See page 94 for a further explanation. Nijssen and Paauwe (2010) discuss that by absorbing and applying new knowledge and skills, employees become able to transitioned quickly from one human resources configuration to another. By doing so, employees are able to perform on different tasks which creates more agility for the firm. In order to motivate the self-development of employees, agile organizations could implement practices, such as rewarding workers for achieving new learning goals. Besides that learning orientation could create more agility, a person's learning orientation provides also the capacity to constantly create and adapt new knowledge into the organization in order to be a step ahead of competitors. This interesting finding could be set-up into the following hypothesis for future research:

Hypothesis 7: "Stimulating employee's learning orientation has a positive effect on organizational agility".

Performance management is aimed at integrated systems of performance measurement, performance evaluation and incentives, designed to optimize the employee performance (Cabrera and Cabrera, 2005). With regard to performance management, the cases show a relatively similarity. All employees in the case organizations are being evaluated regularly on their individual competencies and performance. Several organizational practices such as development paths and performance reviews are organized in order to complete necessary individual competencies. More specific, the practices in this area focus primarily on broadening and deepening the individual competencies. For instance, during performance reviews, employees mainly were assessed critically on behavior and competencies. Moreover, the firms argued that during performance reviews competence development is one factor of discussion whether an employee perform well, is intended to encourage and motivate employees to perform on a higher level and to set-up career opportunities. Furthermore, for performance improvement the organizations make use of the practice: giving and receiving of constructive feedback. Although it is the employees' own responsibility to ask for reflection. Constructive feedback is also used as a tool for performance management and is mostly gathered from peers. Overall, each organization focusses on performance management with a special focus on the individual development, behavior and performance in order to set goals around common performance and to apply improvements in competencies. These findings are equal to the theory of Dyer and Shafer (1998, p. 29-30) stated that 'agile organizations have attempted to engage in goal-setting around common performance metrics and to establish a norm giving all employees a right to receive real-time, primarily informal performance related feedback, either positive or negative (but preferably stacked toward "catching someone doing something right")’. To stimulate this norm, agile organizations provide training on goal setting, evaluating behavior and performance and mainly providing constructive feedback. A next hypothesis for future research can be drawn:

Hypothesis 8: “Performance management has a positive effect on the development of individual competencies for agility”.

In contrast to Dyer and Shafer (1998) who stated that compensation systems must be designed to encourage employees to show important competencies, the data show that competency-based pay or rewarding employees is not directly focusing on the development of individual competencies but is a critical factor to encourage preferred behavior and attitudes of employees. Thereby indicate the examined firms that none organization is focused on rewarding employees on the basis of set targets or by increasing salaries or giving bonuses. The intention is more to reward employees by providing a feeling of appreciation and valuation. The organizations provide a feeling of appreciation through celebrating successes, demonstrating customer/client ratings, represent viewing figures or request employees to contribute in decision making. These findings are in line with the study of Dyer and Shafer (1998). Dyer and Shafer (1998) explain that agile organizations are “liberal users of, often on-the-spot, recognition such as public praise (e.g., "pat on the back" notices on bulletin boards and in newsletters), small cash awards, trips, special assignments, symbolic awards, and the like (in the spirit of "catching someone doing something right"). Special attempts are made to assure that compliments from customers find their way to appropriate individuals or teams” (p. 28). Celebrating success is one way to reward employees for their effort, skills and input but all cases indicate the importance of their core values to support employees in making the right choices and to offer a stable core. An example: the employees of Medical Solutions possess an extensive form of pride about the product that they make. This pride is the organizations best core value and it uses this pride to support employees to perform their best. Moreover, the High-tech firm anticipate on this pride that employees have willingness to make an extra step without additional rewarding. This finding is closely linked to the study of Cabrera and Cabrera (2005) in which they explained that there is some danger in using financial rewards to encourage specific behavior. Cabrera and Cabrera (2005) explain that financial rewards could be perceived as controlling instruments and in some cases, it diminish the creativity of employees. Deci (1975) adds to this that “offering extrinsic rewards for a certain behavior tends to decrease the perceived intrinsic value of the behavior”. O’Dell and Grayson (1998) agreed this perspective and argued that intangible rewards, such as recognition and respect, may be more effective instruments for engaging employees in activities than extrinsic rewards.

Overall, it can be concluded that the organizations focus more on corporate performance and respond to the intrinsic motivation of the employees instead of rewarding employees with compensation (i.e. increasing salaries, giving bonuses). Based on these findings, the following hypothesis for future research can be formulated:

Hypothesis 9: "Intangible rewards have a positive effect on employees' intrinsic motivation".

Answering research question 1 & 2

This study believes that the human resource asset is the most important asset in an organization's competitive advantage structure and consequently that organizations should focus on individual competencies of the workforce since it would make a difference whether an employee is capable to participate on the dynamics of the organizations environment. Nijssen and Paauwe (2010) suggest that organizational agility consists of three elements that contribute to the survival in dynamic environments, namely: a scalable workforce (in terms of quantity and quality), fast organizational knowledge creation and a highly adaptable organizational infrastructure. As mentioned before, this research was assuming that - besides the three elements of organizational agility - individual competencies play a key role in creating organizational agility and that it fits in the constant strategy of being agile. Given this perspective, it was expected that the proposed individual competencies could be seen as a synergy between- and should have an overlap with the three elements for organizational agility. Each case shows that their employees are seen as an important asset within the organization and that they make a difference in the organizational performance. Besides, all cases indicate that individual competencies of their workforce have a significant contribution to the process of agility. According key informants individual competencies make it possible to align employees to the strategy of being agile. By doing so, an organization has the opportunity to become more flexible within their human resources and become capable to respond more quickly to the changes within their environment. Although individual competencies are suggested as an important element for achieving organizational agility, still the ideal conceptualization of competencies is hard to establish since changes in the dynamic environment are hard to predict and still unforeseeable.

Finally, as proposed in this study, when individual competencies are included into the concept of creating organizational agility, in synergy between the three elements that contribute to the survival in dynamic environments, a following conceptualization could be drawn:

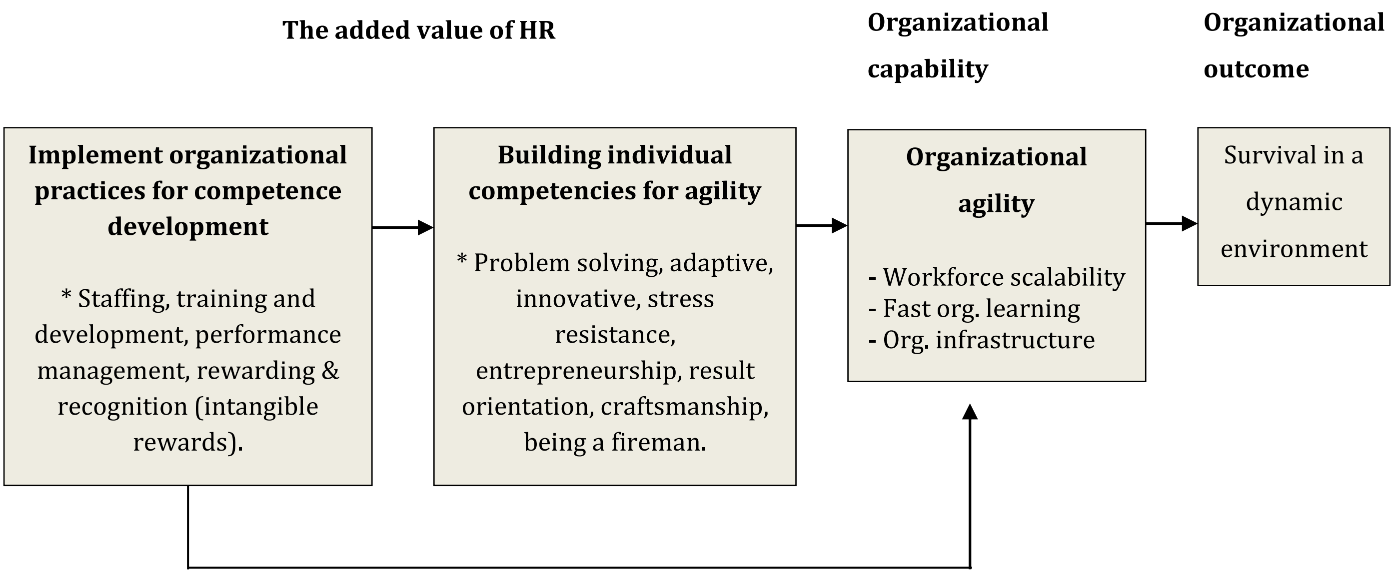

Figure 6. Conceptualization organizational agility

Third central research question

As explained in the theoretical framework, the level of dynamism within an environment as well as the responsiveness of organizations, is influenced by changes subsequent from both market- and institutional pressures (DiMaggio and Powell, 1983; Paauwe, 2004). This research was focused on the dynamic environment in which institutional pressures influence the implementation of organizational practices for individual competence development. The influence of institutional pressures in proposition 3 is focused on the second central research question. The outcomes of institutional pressures found in the cases in relation to their possible impact on the implementation of organizational practices for competence development will be discussed below.

Proposition 3

Oliver (1991) argued that organizations have to respond in some way to perceived institutional pressures in order to survive in their external environment. This response is determined by the strategic choice. The strategic choice provides organizations several possibilities to manage with institutional pressures varying from active resistance to passive response. Based on this perspective, this study proposed that: *"The influence of the institutional pressures on the implementation of organizational practices for competence development (facilitating, hindering or neutral) depends on the response the organization chooses towards these institutional pressures (conform, innovate or defy)".*

During the analysis of the effect of institutional pressures on the organizational practices regarding competence development for agility, appeared that not sufficient evidence was founded that could support this study's third proposition. Therefore it was difficult to make a concrete comparison between the industries and to evaluate the impact of institutional pressures upon competence development. However, some reasonable connections could be made in order to provide at least some insights concerning the influence of the institutional pressures on the implementation of organizational practices for competence development.

The organizations in the sample were compared based on the differences in the level of institutionalization. In summary, the two Engineering companies experienced a relatively low level of institutionalization and seem to be less disturbed with the institutional pressures that occur. Most important is the generic labor law which is significant for all organizations operating in the Netherlands. Concerning to additional labor regulations the Works council is the most important institution for the Engineering industry. Overall, the Works council has a determining voice in how different processes are defined, e.g. how the trainings policy is organized and what involves the budget for educational programs. However, the Work council works closely together with the organization so that decisions are made in cooperation.

Furthermore, normative pressure comes from the educational institutions for Engineers, since the Engineering firms are knowledge-intensive firms. In other words, the Engineering industry is a knowledge based industry, they are dependent on the quality and degree in which employees are trained and possess of adequate knowledge. The Engineering firms will benefit from such educational institutions when they train and deliver well developed employees.

In conclusion, the engineering industry appear to choose for conformity as the most suitable method concerning the implementation of organizational practices for competence development.

The Public Broadcasting sector is relatively highly unionized and has a differentiated approach related to the level of impact on the organization and its image in the external environment. There exists a constant evaluation of influence on legitimacy. This does not always seem to be a deliberate management of compliance. For instance, Medianet has a daily show on news and backgrounds. In this show they also look critical at companies and other institutions as part of their role in society. This also means that they need to be compliant. Moreover, the coercive awareness for legitimacy is accompanied by different rules and regulations that are applicable within the Public Broadcasting industry.

The key informants of the Public Broadcasting industry also mentioned the difficulty of the available resources such as money. For instance, the politics has an important voice in how budgets are distributed across the industry. When a Public Broadcasting firm performs very well and have a lot of viewers, the politics should invest more in them instead of in less performing broadcasters. With the result that the less performing broadcasters have fewer resources to make investments in the development of their employees, i.e. invest in expensive educational programs in order to train employees so that they can develop their competencies. Consequently, the less performing broadcasters could not compete with the high performing broadcasters and so they end up in a visual circle. Or another example, when there is less money to invest, the firm is not able to attract high-potential employees because they are more expensive to hire.

Overall, both Public Broadcasting firms handle the institutional pressure by trying to be involved in defining the institutional context when it is needed since the degree of legitimacy is the most important factor for their existence on the long run. Because the Public Broadcasting firms are aware of the importance of the institutional pressures they deal with a more variety of possible responses and use a room to maneuver (Paauwe, 2004). In other words, the Public Broadcasting firms would first try to explore innovative solutions before they just comply to pressures.

The High-tech firm is exposed to a number of institutional pressures, such as the involvement of trade unions and the Works council. The Works council of the High-tech firm has a determining voice and focus on workers interest. Concerning key informants, the Works council has a voice in how organizational practices are designed and use trade unions for assistance. However, a direct influence of the Works council and trade unions participation in the set-up of organizational practices for competence development were not mentioned by the key informants specifically. In general, the High-tech firm experiences freedom in the fulfilling of processes, if only this within the framework of guidelines. There are several institutions that control the operations and assess whether these produces follow guidelines. This institutional pressure is quite strong within the High-tech organization and determine the structure of the whole business process and its implementation of organizational practices. This for the reason that the firm develops systems that affect the health of patients. These production guidelines and quality standards demands employees to possess competencies like accuracy, adaptiveness, problem solving, innovativeness and are asked to possess knowledge about the right way of working in order to perform following the requested guidelines. Given that employees are deemed to possess special competencies for following the guidelines, the High-tech firm is demanded to train and educate their employees so that competencies and knowledge regarding the rules and legislations stay up-to-date.

Moreover, the High-tech firm has its own CLA-regulations however there is little room for maneuver but one does not experience any pressure from it because it is specifically written for the organization. However, sometimes it hinders the recruitment of talents where the High-tech organization has to compete with other firms who offer appealing secondary employment conditions like bonuses or a company car but there is no permission from the CLA-regulations to meet these terms and conditions. Consequently, it is difficult to attract experts and potentials when the competition on the labor market is high or own employees be tempted to switch over/turnover to a competitor.

In conclusion, the High-tech industry experienced mostly coercive- and normative pressures and handles the institutional pressure by a conformist behavior that refers to a passive or neutral response. The High-tech firm uses the tool risk management and tries to fit in these pressures. More specifically, one complies with the rules and regulations and follows the coercive- and normative pressures.

Answering research question 3

Based on minimal evidence, this research displayed that institutional mechanisms could impact the implementation of organizational practices and that this influence and impact of institutional pressures depends on the response and strategic choice of the organization (i.e. comply, defy, or innovate). As suggested in the academic literature (i.e. DiMaggio and Powell, 1983; Oliver, 1991; Paauwe, 2004) there exist several ways of responding to institutional pressures; organizations can chose to comply to, or defy institutional pressures, or they can pro-actively try to find innovative solutions in order to deal with institutional pressures. Overall it is recommended that organizations should be conscious of the possible response strategies that exist in order to improve their choices to the institutional pressures they face. Comparing all different industries, it can be concluded that agile organizations mostly choose for a conformist/innovative behavior which refers to a passive or neutral response to institutional pressures and have at least a certain level of legitimacy (DiMaggio and Powell, 1983; Paauwe, 2004). Thereby a distinction can be made between the level of institutionalization and the strategic response such an organization make. For instance, it can be concluded that organizations which are highly-institutionalized choose for an innovative response and try to create a leeway in structuring organizational practices. And whereas low-institutionalized organizations choose for a passive or neutral response regarding institutional pressures. Moreover, all organizations experienced that the institutional pressures affect the leeway of organizations in choosing the best organizational practices (Dacin, et al., 2002; Paauwe, 2004, Pursey, et al. 2009). In other words, organizations are not only facing the institutional pressures in the environment, but they also have a certain degree of freedom of choice in responding to these pressures. In this room of maneuver the organizations try to realize the best possible configuration of organizational practices within their institutional setting so it will fits the best to the way of working. Based on these findings, the last hypotheses for future research can be formulated:

Hypothesis 10a: *"Highly-institutionalized organizations choose for an innovative response as the most suitable method to cope with institutional pressures as compared to low-institutionalized organizations".*

Hypothesis 10b: *"Low-institutionalized organizations choose for a conformist response as the most suitable method to cope with institutional pressures as compared to highly-institutionalized organizations".*

6. Limitations and directions for future research

This chapter provides insight into the limitations this research had to deal with. Consequently, the recommendations and directions for future research will be addressed.

This research is exposed to a number of limitations. For this reason, the findings and conclusions of this research should be interpreted carefully. As mentioned before, this study is exploratory and does not have the purpose to offer generalizable findings. However, this research has been a first step in exploring how organizational practices and individual competencies can impact upon organizational agility, and how the relation between organizations and their institutional environment is constructed.

This first analysis provides some interesting starting points for future analysis and research. It is clear that more research can be done to specify more detailed organizational practices and individual competencies. Overall, this study has tried to provide insights in the relation between the added value of human resources (i.e. individual competencies) and organizational agility and how this is set-up in the institutional context. However, there are a lots of other factors that influence organizational agility. For instance, the concepts of individual competencies are influenced by factors such as personal characteristics or the intrinsic motivation of a person. Therefore it would be irrational to believe that this research provides conclusive answers for the entire academic and practical field. However, this research can be used as a source of inspiration for future research.

Furthermore, this study has provided some interesting insights in limitations that could be addressed in future research. First, a control group is missing which makes it impossible to really test for causality (Swanborn, 2003). Because all organizations in the case studies are 'success stories', this research assumes that they are agile to some degree, but it is not possible to distinguish if less or non-agile organizations might also have the same implementation of organizational practices and possess the same individual competencies. Therefore, it is useful to include also a sample that consist of non-agile organizations in order to see the different in between.

Moreover, the number of key informants and cases was limited. It is imaginable that the results could be different when the organizations used in this research would be studied comparative to other companies or when other industries would be used. For this reason, it is useful for future research to examine what pattern of organizational practices and individual competencies in the context of organizational agility appears from a different and larger sample.

In relation with the above mentioned, there exists a high context similarity of the findings regarding the institutional context. All five organizations function within the same national institutional context. The Dutch institutional context could be defined as "a highly institutionalized coordinated market economy with different types of labor legislation regulating working conditions, unemployment and employment security, employee health and flexible working hours" (Boon, et al., 2009, p. 499). When this research would be compared with other organizations in other nations that have a different intensity of institutional pressures, the findings might show different results. For this reason, future research is recommended to involve a more global view in further research.

For this research a sufficient number of key informants with different characteristics per organization (ranging from employee representatives to CEOs) were interviewed. However, a limited amount of key informants that operate at different levels were questioned, for instance shop floor employees at the lower levels were not questioned. This aspect could have an influence on the results regarding how implemented organizational practices are perceived by employees and what specifically individual competencies are exposed. For this reason, future research is recommended to include a research design in which informants of the lower levels are involved in order that they can give an valuable contribution on the studied elements.

Because of the qualitative nature of this research, semi-structured interview with relatively open questions were used to collect data. However, these interviews do not provide standardized data as in quantitative research. This was due to the fact that the researchers asked the same and standard questions in every interview, but the answers and understandings from each informant sometimes differs from others. In general, unanswered questions lead to missing data. The missing information made it sometimes difficult to find parallels or variances.

Additionally, although this study measures data at different points of time it can still be evaluated as a cross-sectional design. In order to make the research notions more valuable and reliable longitudinal research would be desired. This for the reason that it is interesting to investigate how certain responses and patterns about the research concepts perform over a certain period of time.

Another limitation is that this study does not involve all industries which function in a dynamic environment. This research only involves three industries: two firms which operate in a high institutionalized context (Public Broadcasting and High-tech industry) and one organization with a low institutionalization (Engineering industry). Future research is recommended to include more organizations with different industries and levels of institutionalization in order to achieve multiple outcomes to substantiate the study.

A final limitation of this research is that because of the qualitative nature of this research there is limited literature known that focuses on the organizational practices and individual competencies in the context of organizational agility. For this reason, it was very difficult to support the outcomes with theory. Since limited literature exists in order to support the findings, the observations in this study were reflected by giving reasonable argumentations on the possible influence of each finding on organizational agility. By doing so, this study hopes it has provided a starting point for future research in which a widely accepted profile of individual competencies and organizational practices in the context of organizational agility could be established.

A brief overview of the key elements for further research is presented in table 10.

Table 10. Overview key elements for further research

Overview of recommendations for future research
• Adding a control group which makes it possible to test for causality.
• Increase the number of informants and cases. It is imaginable the results are different when the organizations used in this research would be studied comparative to other companies or when other industries would be used.
• Engage multiple companies of other countries with a differentiation to the institutional context. Organizations that have a different intensity of institutional pressures, the findings might show different results.
• Add a questionnaire to the study design in which the shop floor employees can give a contribution on the studied elements in order to generate also the perspectives of the lower level of the company. Maybe this lower level perceive the organizational practices and individual competencies in a different way.
• Implement a longitudinal design in order to see how the dynamic concepts of workforce scalability and organizational agility behave over time. In addition, patterns of responses and their effects can be distinguished.

7. Implications for practice

As mentioned in the beginning of this study, organizations today operate in a business environment where time is a key resource and competitiveness a constantly moving target. Organizations which operate in a dynamic environment face the inevitability of constant change. The problem about how organizations can successfully deal with an unpredictable and constantly changing environment has been a popular topic lately. This study hopes it adds a first step in the academic literature in exploring how organizational practices and individual competencies can impact upon organizational agility. It believes that the human resource assets are the fundamental elements of success and that they play a key role in the process of generating organizational agility. When considering human resources as the most important assets in the creation of organizational agility, decision makers of the organization are recommended to think about the capability to reconfigure and transform the workforce to their business needs and they should be aware of the fact that they can stimulate the expansion of attitudes, behaviors and competencies. This development process starts with selecting good applicants which possess the needed set of skills, abilities and capabilities (individual competencies) and is followed by developing individual competencies of new entrants and their older equivalents by using the right organizational practices. These two steps will be discussed below.

First, when establishing an employee selection criteria personnel representatives must identify the needed individual competencies in order to achieve a best person-organization fit. This list of individual competencies can be derived from the experiences gained from the past and/or by interacting with supervisors and managers. Keeping the results of this study in mind, the first identification and collection of individual competencies should involve the characteristics of agility such as: being flexible and adaptive, focus on result orientation, problem solving ability, entrepreneurship, learning orientation, the ability to generate innovative ideas and being comfortable with change which requires stress resistance. These presented individual competencies could be complemented by two other important core competencies: craftsmanship and troubleshooting.

A second importance should be the focus on the development of the needed individual competencies. Each organization embraces a workforce with a certain set of individual competencies but perhaps it need a certain refinement in which it fit the strategy of being agile. For this reason it is essential that decision makers and personnel representatives of a firm implement certain activities that accomplish a better fit between existing individual competencies and business needs and empower the workforce to achieve alignment with the dynamic environment. This study recommends that the use of a certain set of organizational practices is an efficient way to achieve this objective. This study provides a set of multiple range of tools which develop the desired individual competencies for agility. Keeping the results of this study in mind, the first implementation of organizational practices should involve practices regarding staffing, training and development and performance management in order to develop individual competencies. In contrast to several theorists, who state that compensation systems must be designed to encourage employees to display important competencies, this study shows that competency-based pay is not directly focusing on the development of individual competencies but is a critical factor to encourage preferred behavior and attitudes of employees. Due to the fact that intrinsic motivation is seen in this study as an important key for being agile, it is recommended to managers that they should focus on the personal motivation of the workforce and should implement facilitators and resources that encourage this motivation. If one enjoys the job he or she is able to make an extra step more quickly.

Finally, regarding the institutional environment in which organizations operate, it is recommended to managers that they should be more aware of the different opportunities to react on institutional pressures which an organization faces. Besides using the strategic responses reactive compliance or active resistance, there exists also a room to maneuver in which an organization could choose for a more innovative response that provide ways to achieve the best opportunities and profits for the organization.

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Appendices

Appendix A Overview of principles in defining the concept of competencies (Mulder, 2001)

Mulder hanteert een aantal uitgangspunten bij het definiëren van het begrip competenties, te weten:

- Competenties zijn vermogens, capaciteiten of potenties en kunnen worden opgevat als bekwaamheden van personen, teams, werkeenheden (units) of ondernemingen die hen in staat stellen gewenste prestaties te leveren.
- Competenties bestaan uit geïntegreerde zinvolle clusters kennis, waardigheden en attitudes.
- Competenties vormen een noodzakelijke voorwaarde voor het kunnen leveren van een prestatie (leiderschapskwaliteiten bezitten en ze in de dagelijkse praktijken gebruiken zijn verschillende dingen), bijvoorbeeld het verrichten van taken (ook in een slecht gestructureerde en voortdurend veranderende omgeving), het oplossen van problemen, het uitoefenen van een functie, het bewerkstelligen van een bepaald resultaat en het nemen van verantwoordelijkheid en beslissingen.
- Competenties zijn niet direct en uiterlijk waarneembaar; het zijn vermogens die pas tot uitdrukking komen in een bepaalde prestatie in een specifieke situatie; de mate waarin een persoon over bepaalde competenties beschikt is dus uitsluitend meetbaar door de prestaties te analyseren (initiatief, besluitvaardigheid en klantgerichtheid zijn niet vast te stellen zonder een persoon de genoemde competenties te laten toepassen in praktijksituaties of in gesimuleerde situaties).
- Competenties zijn (tot op zekere hoogte) transportabel van de ene naar de andere situatie en zijn in die zin transferabel.
- Competenties hebben betrekking op resultaatgebieden en prestaties van ondernemingen dan wel werkeenheden of functies (bijvoorbeeld op het gebied van voedselveiligheid, inkoopmanagement, marketingmanagement en accountmanagement).
- Competenties worden tot op een bepaald niveau beheerst en kunnen in veel gevallen verder worden ontwikkeld: beheersingsniveaus die bijvoorbeeld kunnen worden onderscheiden zijn beginnend, gevorderd beginner, competent, proficient en expert.
- Competenties kunnen aanwezig zijn in personen en systemen (de bekwaamheden van personen bijvoorbeeld en de kennis die is vastgelegd in computerbestanden).

Vervolgens komt Mulder (2001) tot een werkdefinitie, te weten: "*Competentie is het vermogen van een persoon of een onderneming om bepaalde prestaties te leveren*." Competenties (van personen) bestaan volgens Mulder uit:

- geïntegreerde handelingsbekwaamheden, die zijn opgebouwd uit clusters kennisstructuren,
- cognitieve, interactieve, affectieve en waar nodig psychomotorische vaardigheden
- en attitudes en waarde opvattingen, die noodzakelijk voorwaardelijk zijn
- voor het verrichten van taken, oplossen van problemen
- en het meer in het algemeen effectief kunnen functioneren in een bepaald beroep,
- een bepaalde onderneming, een bepaalde functie of een bepaalde rol.

In de toelichting op deze werkdefinitie gaat Mulder nader in op de relatie tussen gedrag en competenties van personen. Daarbij wordt competentie als voorwaarde voor het gedrag beschouwd. Competentie is het vermogen om gedrag te activeren dat leidt tot het beoogde resultaat. Competenties zijn niet direct waarneembaar; het gedrag en de prestaties die hieruit voortvloeien zijn dat wel.

Appendix B Overview list of competencies (Hoekstra and van Sluijs, 2007)

Table 11 . Overview list of individual competencies suggested by Hoekstra and van Sluijs (2007)

General competencies

Flexibility	When problems or opportunities arise, if necessary, change own behavior style in order to achieve a stated goal.
Analytical skills	Systematically examine and allocate problems and questions. Parse relevant information, backgrounds and structures. Connect data and see relationships between cause and effect.
Conceptual thinking	Broader and deeper insight into problems or situations by placing them in a more comprehensive framework or through connections with other information.
Learning orientation	Pay attention to new information, absorb this information and apply effectively.
Creativity	Come with original solutions for problems that are connected to the function. Create new ways of working.
Balanced judgment	Possible courses of action, and information about them, make a choice using relevant criteria. On basis of that, come to realistic assessments and decisions.
Awareness of external environment	Show to be informed about social and political developments or other environmental factors, effectively utilize this knowledge for their own job or organization.
Generating vision	Indicate in which direction the organization and its environment move; formulate the goals for the long-term policy.
Listening	Pick up key messages from verbal communication, give attention and space to (discussion)partners, respond to reactions and ask questions.
Sensitivity	Show to accept feelings, attitudes and motivations of others. Understand one's own reaction and influence towards others and handle that.
Communication	Communicate Ideas and information in clear and correct language, so that the essence is understood by others.
Presentation	Present oneself in attitude and behavior in such a way the first impression on others is positive. Convert this impression in respect or sympathy.
Persuasion	Put forward ideas, views and plans to others so convincingly that, even after initial doubts, the others agree.
Integrity	Maintaining social and ethical standards in the work, even when the temptation or pressure to slack is large. Create confidence in professionalism and integrity.
Reliability	Fulfillment of agreements and accept the consequences. By shortfall accept the implications and remove the negative consequences for others as good as possible.
Loyalty	Comply with the policies and interests of the organization and the group to which it belongs. In dilemmas where those interests cross other interests, support the own components or at least do them no harm.
Creating a favourable atmosphere	Compliment, flatter, be friendly or helpful to a person and / or group to get them in a good mood before a request or proposal is made

Approach-specific competencies

Entrepreneurship	Identify and convert opportunities into strategies and improvement or renewal activities that contribute to better corporate performance.
Market oriented	Is noticeably well informed about developments in the market and technology information and applies it effectively into action with benefits to the organization, organizational unit or function.
Boldness	Accept risks in order to eventually gain a recognizable benefit.
Independence	Undertake actions that are based more on own belief rather than a desire for others a favor. Loyal to the client without professional independence in any way.
Result orientation	Actions and decisions towards the actual realization of expected results. Think ahead.
Quality orientation	High demands on the quality of own and others' work, constantly strive for improvements.
Leadership	Give guidance in an inspiring way. Display exemplary behavior and create conditions that motivate people to achieve results.
Consultation	Get a person and / or group whose support and assistance is required to participate in devising a strategy, activity or change or modify a proposal to take into account the interests and suggestions of a person and / or group.
Risk awareness	Recognizing and assessing risks, problems and obstacles. Assessing the impact on individuals and activities in the organization and its environment and then act.
Restraint	Preventing escalation and control of emotions.
Organizing ability	Identify and acquire the required staff and resources for a plan, deploy it so that desired results are effectively achieved.
Making coalitions	Finding or using support and help of others to convince a person and / or group.
Energy	Highly active for a long period when a job demands that. Hard work, endurance.
Awareness of organizational context	Show understanding of how an organization functions, in actions consider the implications for the organization and / or the client organization.
Coaching	Supporting others in carrying out the work. Motivate others and stimulate reflection on and improve their own behavior and act as interlocutor.
Personal appeal	Making an appeal to the loyalty and sympathy of a person and / or group.
Decisiveness	Taking decisions by speaking opinions or performing actions, even when things are uncertain or involve risks. Make choices and come to a decision

Intervention-specific competencies

Awareness of organizational context	Show understanding of how an organization functions, in actions consider the implications for the organization and / or the client organization.
Planning	Effectively determine targets and priorities and necessary actions, time and resources in order to achieve the objectives.
Organizing ability	Identify and acquire the required staff and resources for a plan, deploy it so that desired results are effectively achieved.
Result orientation	Actions and decisions towards the actual realization of expected results. Think ahead.
Boldness	Accept risks in order to eventually gain a recognizable benefit.
Attention to details	Demonstrate attention to detail, deal with detailed information prolonged and effectively.
Problem solving	Identifying (potential) problems / issues and solve this independently or in collaboration with others.
Coaching	Supporting others in carrying out the work. Motivate others and stimulate reflection on and improve their own behavior and act as interlocutor.
Inspiring	Raising enthusiasm for a request or proposal in response to the values , ideals and aspirations of a person / group or by indicating that a person / group has the skills to properly execute a task or a goal to realize.

Appendix C Overview ten basic individual competence attributes (van Assen, 2000)

Table 12 . Overview of the ten basic individual competencies for agility (van Assen, 2000)

Individual competency	**Refers to:**
Innovation	the degree to which an individual is representative
Information retrieval	the degree to which an individual is able to inquire information
Information relaying	the degree to which an individual is able to relay information
Cooperation	the degree to which an individual is able to cooperate with other individuals and business systems
Independent functionality	the degree to which an individual is able to function independently
Initiative	the degree to which an individual is able to develop initiatives
Willingness to change and improve	the degree to which an individual is able to handle, support, and initiate change, renewals and improvements
Service sensitivity	the degree to which an individual is service sensitive
Problem solving	the degree to which an individual is able to solve problems
Stress resistance	the degree to which an individual is resistant for stress

Appendix D Interview structure

Inleiding

Organisaties worden geconfronteerd met continue verandering. Deze veranderingen doen zich voor in zowel de markt als in de institutionele omgeving. Om hiermee om te gaan dient de organisatie wendbaar te zijn: in staat om voortdurend en zonder problemen te transformeren van configuratie naar configuratie. Hiervoor maken organisaties gebruik van specifieke praktijken. Deze praktijken dragen bij aan de ontwikkeling van competenties gericht op flexibiliteit van het werknemersbestand, aanpasbaarheid van de organisatiestructuur en het kennis absorberend vermogen van de organisatie. Deze drie competenties dragen samen bij aan de wendbaarheid van de organisatie.
De genoemde praktijken worden door organisaties geïmplementeerd in de bewegingsruimte die organisaties hebben. Deze bewegingsruimte wordt bepaald door de relevante institutionele krachten in de omgeving van de organisatie. De organisatie heeft verschillende mogelijkheden om met deze institutionele krachten om te gaan.

De centrale vraagstelling is:

1. *Welke praktijken zijn belangrijke determinanten van de wendbaarheid van de organisatie?*
2. *Op welke manier worden organisaties gefaciliteerd of gehinderd door de institutionele mechanismen in het realiseren van wendbaarheid?*

In dit onderzoek maken we gebruik van een case study benadering. Dit biedt de mogelijkheid om een breed scala van variabelen te onderzoeken en komt tegemoet aan de exploratieve aard van het onderzoek. In totaal worden zes case studies uitgevoerd, in drie verschillende sectoren. Deze sectoren variëren op basis van het niveau van institutionalisering en de aard van de dynamiek. In de case studies maken we gebruik van zowel documentstudie als interviews over zowel de organisatie als de sector.

Aandachtspunten:

- Alle interviews worden opgenomen en uitgeschreven
- De interviews zijn semigestructureerd en exploratief
- Vraag voorbeelden!
- De focus ligt op de afgelopen 4 tot 5 jaar
- De vragen worden gesteld aan verschillende typen informanten. De codering achter de vragen geeft aan welke vragen aan wie worden gesteld:

HR	=	HR professionals
LG	=	Leidinggevenden
OR	=	Afvaardiging OR
AD	=	Algemeen Directeur
OD	=	Ondersteunende Diensten

1. Kernprocessen

Het creëren van een blijvend concurrentievoordeel en succes is gericht op een effectieve strategie implementatie. Strategie implementatie is gericht op de kernprocessen van de organisatie. Hiermee bedoelen we de processen die de klantwaarde realiseren in de producten of diensten van de organisatie.

We zien wendbaarheid als een dynamische capaciteit en verwachten dat deze uitsluitend relevant is in kernprocessen van de organisatie. Verder richten we ons ook uitsluitend op de medewerker groepen die in de kernprocessen actief zijn. Deze medewerkers kunnen op verschillende type dienstverbanden worden ingezet. Hierbij maken we het onderscheid op basis van een lange / korte termijn focus en de aanwezigheid van organisatie specifieke of generieke kennis.

Vragen

Wat zijn de kernprocessen in de organisatie? Op welke wijze worden in deze processen de toegevoegde waarde gecreëerd? Welke groepen medewerkers zijn relevant in deze kernprocessen?

a. **Kernprocessen:** (HR/LG/OR/AD/OD)
   a. Welke processen zijn het belangrijkst voor het creëren van toegevoegde waarde?
   b. Op welke wijze dragen deze processen bij aan de toegevoegde waarde?
   c. Welke processen ondersteunen de kernprocessen?

b. **Concurrentievoordeel:** (HR/LG/OR/AD/OD)
   a. Wat is de toegevoegde waarde van uw organisatie voor haar klanten?
   b. Wat is de missie van uw organisatie?
   c. Op welke factoren concurreert uw organisatie met uw concurrenten?

c. **Human resources:** (HR/LG/OR/AD/OD)
   a. Welke groepen van medewerkers zijn met name actief in de kernprocessen?
   b. Hoe kunnen deze groepen worden gedefinieerd met betrekking tot:
      - Lange / korte termijn
      - Strategische waarde / richtingbepalend vermogen
      - Organisatie specifieke / generieke kennis

2. Dynamische omgeving

De omgeving omvat zowel de bedrijfstak als de institutionele omgeving. Hiermee bedoelen we de instanties welke eveneens een invloed hebben op de organisatie (zoals regelgevende instanties). De bedrijfstak bestaat uit de instanties die in directe uitwisseling (klanten en leveranciers) en concurrentie (zowel klanten als resources) met de organisatie zijn.

De dynamiek in de omgeving is gericht op verandering die (1) moeilijk te voorspellen is, (2) regelmatig voorkomt en met (3) een significante impact op de organisatie. Deze dynamiek vergroot de ondervonden onzekerheid voor de sleutelspelers in de organisatie. *We hebben het hier niet over de complexiteit van de verandering of omgeving!*

Vragen

Hoe ziet de omgeving van de organisatie eruit? Hoe dynamisch is deze omgeving?

a. **Bedrijfstak:** (HR/LG/OR/AD/OD)
   a. Wie zijn de belangrijkste concurrenten?
   b. Hoe zou je deze concurrenten omschrijven?
   c. Hoe invloedrijk zijn deze concurrenten?
   d. Hoe invloedrijk zijn uw klanten / afnemers?
   e. Hoe veranderlijk is de bedrijfstak?
   f. In welke mate zijn deze veranderingen te voorspellen?
   g. In hoeverre hebben deze veranderingen een impact op de organisatie?

VOORBEELDEN?

b. **Institutionele omgeving:** (HR/LG/OR/AD/OD)
   a. Welke instanties zijn het meest relevant?
   b. Hoe invloedrijk zijn deze instanties?
   c. Hoe veranderlijk is de institutionele omgeving?
   d. In welke mate zijn deze veranderingen te voorspellen?
   e. In hoeverre hebben deze veranderingen een impact op de organisatie?

VOORBEELDEN?

3. Organizational practices

We veronderstellen dat de competenties van een wendbare organisatie zijn: flexibel werknemersbestand, aanpasbare organisatiestructuur en kennis absorberend vermogen.

Een flexibel werknemersbestand betekent dat de organisatie haar human resources altijd in lijn heeft met de strategie zonder onnodige kosten. Het werknemersbestand kan worden gedefinieerd in aantallen, competenties, inzetbaarheid en bijdrage. Deze dimensies dienen te worden gemanaged op basis van aansluiting bij de strategie en het gemak waarmee de human resources kunnen verschuiven.

De aanpasbare organisatiestructuur is organisch en wordt gedreven door onderlinge aanpassing, met minimale formele hiërarchie, grenzeloos en teambased. Daarnaast geldt zo min mogelijk vastlegging en standaardisatie van processen.

Het kennis absorberend vermogen heeft betrekking op het creëren, aanpassen, verspreiden en toepassen van kennis in de organisatie. Behalve de reeds aanwezige kennis speelt hier ook de organisatiestructuur en het vermogen om kennis te delen een belangrijke rol (zowel formeel als informeel).

Vragen

Zijn de competenties flexibel werknemersbestand, aanpasbare organisatiestructuur en kennis absorberend vermogen aanwezig? Welke praktijken worden ingezet om deze competenties vorm te geven?

a. **Praktijken flexibel personeelsbestand:** (HR/LG/OR/AD/OD)
    a. Is er (in relatie tot de kernprocessen) sprake van een flexibel werknemersbestand?
    b. Welke praktijken past u toe om het werknemersbestand te laten aansluiten bij uw strategie?
    Voorbeelden zijn: open planning, betrekken van medewerkers, communicatie met medewerkers, participatie
    c. Welke praktijken past u toe om numerieke flexibiliteit te creëren?
    Voorbeelden zijn: workforce supply chain management, externe mobiliteit, interne mobiliteit
    d. Welke praktijken past u toe om functionele flexibiliteit te creëren?

Voorbeelden zijn: training en ontwikkeling, coaching, mentoring, competentiemanagement

e. Differentieert u naar personeelscategorie bij de toepassing van de practices?
f. Welke individuele competenties zijn volgens u nodig om te kunnen opereren in een wendbare organisatie?
g. Op welke individuele competenties wordt een werknemer geselecteerd binnen uw organisatie? Liggen deze individuele competenties in relatie met uw strategie?
h. Indien binnen uw organisatie gebruikt wordt gemaakt van werknemer assessments en/of functioneringsgesprekken, welke individuele competenties zijn dan het meest belangrijk waarop een werknemer moet scoren?
i. Zijn individuele competenties belangrijk om functionele flexibiliteit van uw personeel te creëren? Waarom?

b. **Praktijken aanpasbare organisatiestructuur:** (HR/LG/OR/AD/OD)
   a. Werkt de organisatiestructuur faciliterend of belemmerend in het opereren van de organisatie in een dynamische omgeving?
   b. Hoe ziet uw organisatie eruit? Hiërarchisch / Functioneel / Operationeel?
   c. Op welke wijze vindt horizontaal overleg en coördinatie plaats?
   d. Op welke wijze vindt verticaal overleg en coördinatie plaats?
   e. In hoeverre is er sprake van vaste regels, procedures en standaarden?
   f. Welke knelpunten bestaan er in uw organisatiestructuur?
   g. In welke mate is relevante informatie (real-time) beschikbaar voor u en uw medewerkers?
   h. Belemmert of faciliteert de werkplekinrichting de wendbaarheid van de organisatie?
   i. Differentieert u naar personeelscategorie bij de toepassing van de practices?

c. **Praktijken kennis absorberend vermogen:** (HR/LG/OR/AD/OD)
   a. In welke mate wordt kennis in de organisatie verkregen en gedeeld?
   b. Hoe wordt nieuwe kennis door de organisatie verkregen?
   c. Zijn er praktijken om direct persoonlijk contact met mensen buiten de organisatie te stimuleren?
   d. Zijn er praktijken, formeel en informeel, waarbij men gezamenlijk bij elkaar kan komen; als groep, maar ook meer individueel om elkaar te leren kennen en kennis te delen?
   Bijv. mentoring, (in)formele activiteiten, plekken om bij elkaar te komen

e. Welke praktijken zijn er waarbij mensen in dialoog gaan? Hoe delen mensen dan hun kennis?
f. Hoe wordt kennis vastgelegd?
g. Zijn de bedrijfsprincipes van het bedrijf vastgelegd?
h. Hoe wordt de nieuwe kennis verspreidt?
i. Hoe wordt er gezorgd dat de nieuwe kennis in de hoofden en handen van de werknemers komt?
   Bijv. meetings, reflecteren op documenten, oefenen, learning by doing
j. Waar is de verantwoordelijkheid belegd voor het creëren en delen van kennis?
k. Wordt kennis gedeeld binnen de organisatie en buiten de organisatie?
l. Differentieert u naar personeelscategorie bij de toepassing van de practices?
m. Welke organisatie praktijken zijn volgens u onmisbaar binnen een wendbare organisatie?
n. Welke organisatie praktijken worden er binnen uw organisatie geïmplementeerd, zodat individuele competenties beter bij uw strategie/omgeving aansluiten?

4. Institutionele mechanismen

Organisaties acteren in een complexe omgeving. Organisaties moeten voldoen aan institutionele normen. We zijn hier specifiek geïnteresseerd in institutionele mechanismen die gerelateerd zijn aan de praktijken gericht op wendbaarheid. Organisaties kunnen zelf kiezen hoe ze met deze institutionele druk omgaan. Deze keuze wordt bepaald door interne factoren. De mogelijke manieren zijn: conformeren, innoveren of verzetten.

Vragen

Welke institutionele mechanismen zijn relevant voor de besproken praktijken? Hoe gaat de organisatie om met deze institutionele druk?

a. **Institutionele druk:** (HR/LG/OR/AD/OD)
   a. Welke institutionele mechanismen zijn gerelateerd aan de genoemde praktijken?
   b. In welke mate werken deze mechanismen belemmerend of faciliterend?
   c. Welke instanties spelen een belangrijke rol bij deze institutionele mechanismen?

b. **Respons van organisatie (related to discussed organizational practices):** (HR/LG/OR/AD/OD)
   a. Waar is de verantwoordelijkheid belegd voor het omgaan met deze institutionele mechanismen?
   b. Welke strategie kiest de organisatie om om te gaan met deze institutionele mechanismen?

VOORBEELDEN?

Appendix E Overview key informants

Table 13 . Overview number of key informants per function per organization

Function	Medianet	Be Young	Electrodesign	Techniconsult	Medical Solutions
Board of Management	2	2	2	2	0
HR Manager	1	0	1	1	1
Line manager	3	5	1	2	6
Senior employee/ (project) manager	0	1	2	2	1
Coordinator Educations	0	0	0	0	1
Works council	1	0	1	1	1
Total	**7**	**8**	**7**	**8**	**10**