
Master Thesis

Learning enablers or strategy makers?

Senior executive leadership in knowledge management processes and activities



Abstract

Senior executives occupy central positions within organizations and their leadership has significant impact on the outcomes of their companies, which is linked to the strategic fit between the knowledge management strategy, intellectual capital and the organizational culture. The purpose of this study is therefore to increase the understanding of how senior executives and their leadership in knowledge intense firms influence knowledge management processes and activities within their organizations. Utilizing an abductive approach on a multiple-case qualitative study of four knowledge intense firms, this study describes and explains the role senior executives and their leadership plays in the interconnected areas of knowledge management strategy, HR-strategy and knowledge sharing culture. The results of the study show the lack of an articulated knowledge management strategy within the firms, and that utilization of knowledge management processes and activities primarily occurs operationally in common practice rather than derived from a specific central strategy. This resulted in a partial alignment with the HR-strategy with limited implementation of incentives and rewards to promote knowledge sharing within the companies. The senior executives' leadership involvement was mainly concerned with role-modelling, adopting the role of learning enablers. However, this study suggests an overlooked importance of coaching/mentoring leadership in knowledge management processes on a senior level. The outcomes of this study provide empirical contribution and theoretical implications to existing research, and may be useful to organizations or companies in the development of knowledge management strategies and senior level leadership development, to facilitate an effective use of knowledge in their organizations.

Key words

Knowledge management, leadership, strategy, knowledge sharing,

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1 Introduction

1.1 Background

After eighteen years of working in leading positions within a highly knowledge intense organization, where the continuous utilization of knowledge in the development of strategy and tactics are crucial, the author has experienced the difficulties of collecting, analyzing and sharing lessons learned between organizational members, in order to improve organizational practices and the operational outcomes of it. This has resulted in an interest in the academic fields of leadership and knowledge management, and the processes and activities associated with it.

Following the development of the knowledge society, knowledge management has been frequently discussed over the last decades. Although different scientific and practical approaches to the topics exist, there is a common notion of the importance of systematic knowledge management within organizations and companies as a means to improve and optimize organizational performance in order to achieve competitive advantage (Bogner & Bansal, 2007, Ren et.al., 2018). As such, leadership and the concept of knowledge management are interesting and important to study as they transcend multiple disciplines of corporate and organizational activities, and the resulting theoretical findings may be practically applied and used in daily organizational life.

By studying a number of Swedish companies in knowledge intense businesses, and the relation between knowledge management and senior executives in these organizations, this study aims to increase the understandings of senior executive leadership in knowledge management processes and activities.

1.2 Problem discussion

The subject of knowledge management is important to study as it has both theoretical and practical implications by developing theory on organizational nature, as well as practical relevance to the business world through its potential for improving business performance (Spender, 2008). Influential authors on knowledge management, such as Nonaka & Takeuchi (1995), have popularized the objectivist perspective in knowledge management research. The objectivist perspective considers knowledge as truth and scientific facts. This includes the view of knowledge as quantifiable and measurable (McAdam & McGreedy, 2000). Consequently Knowledge management research has largely focused on business issues, rather than people, including processes, systems and technical aids for collecting, analyzing and transferring knowledge within- and between organizations (Viitala, 2004). This includes an emphasized research focus on IT-based knowledge management systems (Dave & Koskela, 2009). However, the approach of knowledge management as a solution, and the heavy reliance on IT-systems as a means to solve organizational problems, has been a source of disappointment (Schultze, 2008).

Arguing for a practice-based view of knowledge management, Hassell (2007) concludes that knowledge is embedded in people, and consequently essential parts of knowledge are difficult to manage via IT-systems. The practice-based view of knowledge management instead focus on social processes and indirect methods of specific cultural and people management practices (Hislop, 2009) This view of knowledge management is under-represented in the studies of knowledge intense firms (Alvesson & Torhell, 2004). The knowledge intense firm is characterized by utilizing knowledge as a core competence to gain competitive advantage, and the potential knowledge loss in these firms from high turnover rates and limited employee

loyalty poses a significant threat from an economic point of view (Ibid). This consequently highlights the importance of aligning knowledge management strategy and HR strategy (Hansen et.al., 1999; Zack, 1999), as the operational and financial performance of a company is linked to its strategic fit between the intellectual capital and knowledge management strategy (Wang et.al., 2016). Included in this is deciding on a knowledge recruitment- or retention strategy (Haesli & Boxall, 2005). However, a common problem is that HR-management is not involved in strategic decisions, and consequently people management is not taken into consideration on senior level when developing corporate strategies (Caldwell, 2004).

As senior executives represent the peak of formal power within an organization, their leadership has significant impact on operations, processes and the resulting outcomes of an organization (Carmeli & Tishler, 2006). Ahmed et.al (2007) conclude that senior management play a central part in facilitating or obstructing knowledge sharing within organizations, and that their choice and installment of knowledge management incentives has significant impact on the outcomes of these initiatives (Ahmed et.al 2007). Furthermore, senior executive leadership impact knowledge management processes both directly through official encouragement and support, as well as indirectly through personal behavior and actions (Ibid). Following this, senior executives are key enablers in knowledge management within an organization, and their leadership has major influence on the development of the organization. However, few studies have examined the roll that senior executive leadership play in knowledge management activities (Luo et.al, 2014).

The limited research on leadership in knowledge management has mainly focused on transformational leadership, and there is a veritable consensus in knowledge management literature that this leadership style is the most suitable form (Hislop, 2009). Furthermore, the link between leadership and

knowledge management processes lack empirical evidence in the analysis of their relation to each other (Güldenbergs & Konrath, 2006). The concept of transformational leadership has in recent year's generated growing critique (Berkovich, 2016). This includes critique on the concept of being too idealistic (Fourie & Höhne, 2019), the absence of distinctiveness from other elements of leadership (Berkovich, 2016) and the broad variety of different themes incorporated in the concept making measurement of its effect unreliable (Alvesson et.al, 2017). Luo et.al (2014) investigated the connection between leadership characteristics and knowledge transfer in top management teams, and found that the different leadership characteristics provided different contributions to knowledge management outcomes in the organization (Luo et.al, 2014). However, this case study was tailored to rotated senior executives in Chinese firms and the conclusions drawn from this may not be directly applicable in a different setting. Consequently, the results raise questions on what the impacts of senior executive leadership on knowledge management processes would be in an alternative geographical and cultural context.

The literature review conducted in association with this research revealed a scarcity in the studies being previously conducted on senior executive leadership in knowledge management processes, and additionally on the relationship between leadership and knowledge management outside the realms of transformational leadership theory. This suggests that there is a significant knowledge gap to explain how senior executives and their leadership influence knowledge management within their organizations.

1.3 Research question

This research deals with senior executive leadership in knowledge intense firms and its' relation to knowledge management processes and activities within these firms. The literature review and subsequent problem discussion have resulted in the formulation of the main research question (RQ):

What is the role of senior executive leadership in knowledge management processes and activities within their organizations?

1.4 Purpose

By investigating the connection between senior executive leadership and knowledge management strategy, human resource strategy and knowledge sharing culture; the purpose of this study is to increase the understanding of how senior executives and their leadership in knowledge intense firms influence knowledge management processes and activities within their organizations. Doing so, this study will contribute to the existing theoretical research, as well as exploring practical implications for senior executive leadership in knowledge management processes and activities

1.5 Research delimitations

The major external limitations affecting this study, was concerned with the timeframe and the availability of relevant organizations and respondents. The external limitations together with the problem discussion and subsequent development of the research question resulted in the decision on internal delimitations of the research project.

This study was conducted from the perspective of senior executives, omitting the views, interpretations and actions of middle level managers, low level managers and employees within the studied organizations. Furthermore, it studied the *meanings and understandings* of senior executives, thereby omitting the study of actual behavior and actions. This prevents the research

of depicting a coherent picture of real life organizational activities and individual behavior. These delimitations were adopted based on the reasonable assumption that the meanings and understandings of the senior executives may be linked, intentionally or unintentionally, to their behaviors and actions, which have an impact on the activities and outcomes of the organization (Ahmed et.al 2007). The study focused on Swedish companies operating within knowledge intense businesses, thereby omitting organizations operating in other business segments and/or based in other countries. This was motivated by the accentuated importance of knowledge management processes and activities within knowledge intense firms (Alvesson & Torhell, 2004), and that the geographical location provided the researcher with increased availability of organizations and potential respondents. The impact of the external limitations and the methodological consequences of the research delimitations are further discussed in the methodology chapter.

2 Theoretical Framework

2.1 Summary

Knowledge management literature describes two main perspectives of knowledge: The objectivist- and the practice based perspectives (Hislop, 2009). The objectivist perspective considers knowledge as truth and scientific facts, and views knowledge as quantifiable and measurable, with tacit and explicit knowledge as two separately pure forms of knowledge (McAdam & McGreedy, 2000; Nonaka et.al., 2000). This study adopts a practice-based perspective of knowledge, where different types of knowledge are intimately related to human activity (Orlikowski, 2002) and tacit and explicit knowledge are viewed as two aspects of knowledge (Werr & Stjernberg, 2003). Knowledge management perspectives may be observed through the emphasis of direct or indirect methods (Hislop, 2009). Direct

methods are largely related to managing knowledge in explicit form through the use of information and communication technology (ICT), which have largely dominated the knowledge management discourse (Viitala, 2004). This study puts focus on the indirect methods, such as management of social processes and people- and cultural management (Hislop 2009), used in knowledge intense firms. These firms recognize the management of knowledge to be a core competence to gain competitive advantage Swart et.al. (2003), and may be categorized into: The professional service company, which normally deals with customized situational services, and the R&D-company which typically produces a physical product (Alvesson & Torhell, 2004).

The knowledge management processes and activities conducted within an organization are interlinked and can be observed through the organizations knowledge management strategy (Choo & Bontis, 2002). Sharing knowledge within organizations is considered an imperative factor in order to improve organizational learning (Mueller, 2015). This can be achieved through interpersonal interaction, which may be viewed as the cultivation of social capital (Swart & Kinnie, 2003), and the operational and financial performance of a company is linked to its strategic fit between the intellectual capital and knowledge management strategy (Wang et.al., 2016). The knowledge management strategy imposes implications for human resource (HR) management including the alignment of knowledge management- and HR strategies (Zack, 1999; Hislop, 2009). However, an insecurity of how to translate the goals of utilizing knowledge into courses of action may result in a lack of-, or maladjusted knowledge strategy (Zack, 1999). Hansen et.al.(1999) constructed a framework for knowledge management strategies based on the differentiation of strategies by codification and personalization. The HR-implications from a personalization strategy includes training by mentoring, development of social skills and motivating and rewarding

employees for knowledge sharing (Hansen et.al., 1999). Determined strategies may need to be revised in order to remain effective (Scheepers et.al. 2004) and include organizational focus on employee recruitment or retention. Haesli & Boxall (2005), as the potential knowledge loss from high turnover rates poses a significant economic threat (Alvesson & Torhell, 2004). Motivation of workers is crucial for employee retention (Ibid) , and participation in knowledge management processes and the development of a knowledge sharing culture (Hislop, 2009). Therefore knowledge management initiatives need to link to HR strategies, and fit within the organizational culture (McDermott & O'Dell, 2001). Cultural factors affecting knowledge sharing processes include: Dedication of time to knowledge management processes, openness within the organization, organizational structure and output- or employee orientation (Mueller, 2014).

Senior management play a crucial role in knowledge management work (Ahmed et. al, 2007), and in order for them to facilitate an effective use of knowledge within their organizations they need to overcome challenges and knowledge barriers. These involve facilitating trust as a key concern in knowledge sharing (Newell et.al., 2007) including employee trust in management (Renzl, 2008), understanding knowledge barriers from an employee point of view, and encourage knowledge sharing through personal behavior and actions while recognizing the difficult balance of formal and informal management (Ahmed et. al, 2007). Here, carefully applied leadership may constitute a valuable alternative to formal managerial interventions. However, leadership research in knowledge management has mainly focused on transformational leadership (Hislop, 2009). Although reaching significant popularity, the concept has in recent year's generated growing critique, due to the wide scope and broad variety of different themes incorporated and an absence of distinctiveness from other elements of leadership, particularly empirically (Berkovich, 2016). This study adopts a

wider approach in order to facilitate new theoretical perspectives and increase the understanding of how leadership may influence knowledge management processes and activities, by utilizing a leadership model with clearer distinction between the differentiating elements of leadership (Berkovich, 2016). The 5P model of Alvesson et.al (2017) consists of five varieties of leadership: The prophet, the preacher, the psychotherapist, the party-host and the pedagogue. It is a model for categorizing leadership characteristics by the use of metaphors, in order to emphasize the distinct features of leadership as a set of practices. The categories are not exclusive however developing proficiency in all categories is difficult. (Alvesson et.al, 2017).

2.2 Knowledge management

2.2.1 What is knowledge?

In order to examine the topic of knowledge management, an explanation of the concept of knowledge may be necessary in order to determine what it is and then consequently if-, and how it can be managed. Such an endeavor is arguably arduous and to fully accomplish this would require a wider context than a master thesis. Furthermore a detailed description and attempt to answer these questions is not aligned with the purpose of this study. However, a brief description of different perspectives of knowledge in order to clarify the interpretation of knowledge in this study is provided here.

Knowledge management literature describes two main perspectives of knowledge: The objectivist- and the practice based perspectives (Hislop, 2009). The objectivist perspective considers knowledge as truth and scientific facts. This includes the view of knowledge as quantifiable and measurable which leads to the conclusion that objective knowledge may be produced (McAdam & McGreedy, 2000).

Following the knowledge theories of Polanyi (2009), Nonaka & Takeuchi (1995) divides knowledge into explicit and tacit knowledge. Tacit knowledge is informal and submerged in persons, thereby making it hard to formulate and consequently communicate to others. Explicit knowledge is formal in character and may be coded into regulations, procedures and instructions, making it easier to transfer and communicate between individuals and groups (Nonaka & Takeuchi, 1995). This view of knowledge involves the notion of tacit and explicit knowledge as two separately pure forms of knowledge, and adopting an either/or perspective on knowledge (Nonaka et.al., 2000). Being arguably two of the most influential authors on knowledge management, the objectivist perspective of Nonaka & Takeuchi (1995) has gained significant popularity in knowledge management research. However it has also raised critique and the consequent development of the practice-based perspective.

The practice-based perspective of knowledge is developed from the understanding that different types of knowledge are intimately related to each other and human activity (Orlikowski, 2002). Styhre (2009) suggests an abandonment of the term of tacit knowledge altogether, and to adopt the concepts of sensible or aesthetic knowledge as they recognize the mutual contribution of skill and vocabulary, thereby clarifying that both competences are actually included in this knowledge (Styhre, 2009). The concept of sensible knowledge in the practice-based perspective of knowledge also includes the notion that knowledge, or knowing as this perspective uses, is utilized with the whole body and not just the brain (Strati, 2007). This makes knowing inseparable from action and thereby the concepts of tacit/explicit knowledge inseparable from each other (Orlikowski, 2002). Consequently, tacit and explicit knowledge should be viewed as two aspects of knowledge, rather than as pure separate forms of it - adopting a both/and perspective on knowledge (Werr & Stjernberg, 2003). Niccoloni et. al. (2003) considers the often failed or inadequate knowledge

management incentives in organizations to be a result of the prevailing objectivist perspective of knowledge and the proposal of ICT as a universal solution to knowledge management problems (Niccoloni et al., 2003).

Following the reasoning of Orlikowski, (2002) and Werr & Stjernberg, (2003), this study adopts the practice-based perspective of knowledge, and focuses on procedures and activities as demonstrated in practices and social processes within knowledge management.

2.2.2 What is knowledge management?

Following the difficulties of determining what of knowledge is and what it actually consists, is the problem of defining if- and how it can be managed (Fuller, 2002)? Similar to the previous chapter on knowledge, this chapter is not an extensive elaboration on all aspects of knowledge management, but rather serves as description of the perspectives and interpretation of knowledge management utilized within this study.

The idea of knowledge management was popularized in the 1990's and although occasionally labelled as a business fashion trend by sceptics (Scarbrough & Swan, 2001), the concept has received continuous interest from the academic society (Hislop, 2009). Like the topic of knowledge, knowledge management has different definitions depending on the literary source. This has raised critique as some are generic and wide, while others are narrow and specific, and as a consequence knowledge management may entail almost anything (Alvesson & Torhell, 2004). Furthermore the concept of knowledge management itself is debated and may be considered to be a contradiction, as knowledge and management trade off against each other in the business area (Fuller, 2002). The ability of actually managing a fleeting concept such as knowledge is also a source of debate, although organizations may shape their activities to facilitate the creation, sharing and utilization of knowledge (Alvesson & Kärreman, 2001).

One method of differentiating knowledge management perspectives may be observed through the emphasis of direct or indirect methods in the attempts of managing knowledge (Hislop, 2009). Direct methods are largely related to managing knowledge in explicit form through the use of information and communication technology (ICT), which may be associated with the objectivist perspective of knowledge (Ibid). Consequently, these methods have received considerable attention in knowledge management research, and the focus on processes, systems and technical aids for collecting, analyzing and transferring knowledge within- and between organizations have largely dominated the knowledge management discourse (Viitala, 2004). However, the approach of knowledge management as a solution, and the heavy reliance on ICT as a means to solve organizational problems, has resulted in a faded interest within the business community with the realization that single large-scale knowledge management incentives alone cannot resolve these issues (Schultze, 2008).

Adopting the practiced based view on knowledge, Hassell (2007) expresses critique of the objectivist perspective and the pure use of direct methods, arguing that essential parts of knowledge are difficult to manage via ICT. Knowledge is submerged in people and requires codification in order to emerge as knowledge in ICT, and through this it changes identity, essentially becoming nothing more than information (Hassell, 2007). Earl (2001) divides the perspectives by methods into technocratic (objectivist , IT-based) economic (commercialization focus) and the practiced-based behavioral approach. The behavioral approach advocates the use of indirect methods by managing people who has knowledge and to utilize social processes and organizational culture as a means to manage knowing (Earl, 2001).

Given the variety of opinions and descriptions of knowledge management in business- and scientific literature, this study considers the following definition of Hislop (2009) on knowledge management:

“...Knowledge management is an umbrella term which refers to any deliberate efforts to manage the knowledge of an organization’s workforce, which can be achieved via a wide range of methods including directly, through the use of particular types of ICT, or more indirectly through the management of social processes, the structuring of organizations in particular ways or via the use of particular culture and people management practices...” (Hislop 2009:59)

This definition may arguably be considered as wide. However, following a practice-base view on knowledge, this study puts particular emphasis and focus on the indirect methods used in knowledge management processes and activities by knowledge intense firms.

2.2.3 The knowledge intense firm

The knowledge intense firm, like knowledge and knowledge management, is a concept with several definitions, and consequently this chapter delineates the descriptions of the knowledge intense firm as adopted in this study.

Swart et.al. (2003) suggest that the knowledge intense firm may be identified by a number of features and characteristics that differentiate it from conventional firms: The organizational structure is more fluid and typically flatter and less hierarchal. The workforce is highly educated and qualified, and the competences and skills possessed by the employees are seen as an important source of competitive advantage by the company. Work processes are creative and typically performed in teams or projects on a non-routine basis, with the resulting products or services being highly complex and tailored to meet the individual need of the client (Swart et.al., 2003).

Alvesson & Torhell (2004) describe two main categories of knowledge intense firms: Professional service companies, and research and development (R&D) companies. The major difference between the two categories is related to their main operations. The professional service company normally

deals with customized situational services, where the employees engage in direct interaction with the market. The R&D-company typically produces a physical product, reducing the number of contact surfaces between employees and the customers, as this is primarily handled by a specific marketing department (Alvesson & Torhell, 2004). Robertson & Swan (2003) consider knowledge creation and the ability to construct creative and innovative solutions in order to solve complicated problems and situations to be a key component in a knowledge intense firm (Robertson & Swan, 2003). Critique against the mainstream understanding of the knowledge intense firm includes its conceptual ambiguity, and that the descriptions of features and characteristics may fit almost any company (Hislop, 2009). This is acknowledged by Alvesson (2001), who also concludes that the prevailing approach to the knowledge intense firm is too closely associated with the objectivist perspective of knowledge, and that increased consideration of the practice-based perspective needs to be taken into account when addressing the topic of the knowledge intense firm (Alvesson, 2001).

Regardless of the exact definition, the knowledge intense firm provides an interesting study subject for knowledge management procedures, as the management of knowledge is considered to be a core competence within these firms to gain competitive advantage. Consequently, this study utilizes a practice-based perspective in examining knowledge intense firms and the knowledge management processes and activities within these organizations

2.2.4 Knowledge management processes and activities

Given the arguably wide definition of knowledge management, there are numerous processes and activities that organizations may engage in depending on the character of work and how knowledge is view within the organization (Hislop, 2009). A common theme for these activities is the importance of not “reinventing the wheel” and that knowledge management activities and processes should support the re-usage of knowledge and the

integration of this knowledge and lessons-learned within the organization (Diedrich, 2004). Processes and activities to manage the knowledge or knowing, embedded in an organization and its employees, include knowledge sharing and integration (Choo, 2006).

2.2.4.1 Knowledge sharing

Sharing knowledge within organizations is considered an imperative factor in order to improve organizational learning and market competitiveness (Mueller, 2015). Knowledge sharing processes within organizations has largely focused on the codification of knowledge and subsequent use of ICT to share this information (Hassell, 2007).

However, as discussed in previous chapters, the realization of the limitations of ICT and the growing importance of the practice-based perspective has brought increasing focus on social factors and methods to share knowledge. This can be achieved through inter-personal interaction, which may be viewed as the cultivation of social capital (Swart & Kinnie, 2003). Social capital entails the personal relationships structured in social networks that individuals are engaged in, and the useful information, knowledge and resources embedded within these networks (Nahapiet & Ghosal, 1998). Deriving knowledge from these is essential for the individual, in order to develop the individual's skills and effectiveness at work. Consequently, the utilization of the knowledge within social capital is imperative for the knowledge intense firm (Swart & Kinnie, 2003). However, the social capital extends beyond the limits of the organization to entail its collaboration partners and clients, providing both a strategic and symbolic value (Alvesson & Torhell, 2004). Consequently, this is also a concern for the firm in the sense of reputation and market signaling, where focus is not only on employing the "right" people, but also to be affiliated with the "right" partners and serving the "right" clients (Ibid). An important factor of this reasoning is viewing knowledge as also being acquired and shared on a

group- or organizational level, rather than just by individuals (Choo, 2006). On this level knowledge exists in the form of practices and relationships developed by working together over time, connecting employee communities through a social fabric (Brown & Gray, 1995). Hansen (2002) concluded that these social interactions have implications for the quality of knowledge sharing activities, where both the relationships between groups and the association of the shared knowledge were important. Common knowledge and intimate relationships between groups displayed a higher rate of effectiveness in the knowledge sharing processes (Hansen, 2002).

2.2.4.2 Knowledge integration & utilization

The results of an organizations integration and coordination of the knowledge acquired and shared by the organizational members, may be viewed as the organizational capability (Grant, 2002). Consequently, many companies aspire to become learning organizations, where learning is incorporated in daily practices and routines (Reissner, 2005). To accomplish this, organizations need to facilitate conditions where utilization of knowledge is achieved through integration of individual knowledge and efforts (Grant, 2002).

Countering this view of the organization as the “master” of knowledge management and individual efforts, Tsoukas (1996) argue for the concept of the organization as distributed knowledge systems. These systems are dispersed and subsequently unable to be observed as a whole. Furthermore, the changing nature of knowledge acquired through creativity and human action requires constant processes of coordination, making integration difficult. Consequently, managerial attempts should be equally concerned with facilitating a discursive community where individual can share knowledge, as constructing procedures to integrate distributed knowledge (Tsoukas, 1996). Choo (2006) concludes that organizational knowledge is

constantly changing through activities and social practices. Therefore the utilization of knowledge is not possible from a single agent perspective. The relevance of knowledge is not predictable and knowledge cannot be centrally managed (Choo, 2006).

2.2.5 Knowledge management strategies

The knowledge management processes and activities conducted within an organization are interlinked and can be observed through the organizations knowledge management strategy (Choo & Bontis, 2002). To maximize the effectiveness of knowledge management strategies, these should be developed, aligned and compatible with the overall business strategy of the company. By identifying the role of knowledge resources within the business strategy, management incentives can be constructed to facilitate knowledge sharing processes (Hislop, 2009). Zack's (1999) research on 25 companies concludes that the most important factor for aligning knowledge management incentives is the firm's strategy. This is however problematic as the link between the organization's knowledge processes and the business strategy may not be easily visible, resulting in an insecurity of how to translate the goals of utilizing knowledge into courses of action and real life incentives. Consequently this may result in a lack of-, or maladjusted knowledge strategy (Zack, 1999). The importance of knowledge management strategies in relation to the intellectual capital (human-, structural- and relational capital) of the company was studied by Wang et.al., (2016), who conclude that the operational and financial performance of a company is linked to its strategic fit between the intellectual capital and knowledge management strategy (Wang et.al., 2016). Consequently, the desire for knowledge management strategies to facilitate strategic fit with HR-strategies and the overall business strategy of an organization has resulted in the development of knowledge management strategy concepts.

Hansen et.al., (1999) studied knowledge management within consulting firms and constructed a framework for knowledge management strategies based on the differentiation of strategies by codification and personalization. These may be associated with different perspectives of knowledge, where codification is mainly concerned with storing and retrieving codified knowledge in IT-systems, and personalization emphasizes knowledge sharing through personal interaction. Determining which knowledge management strategy that is the most effective, depends on which knowledge resource that is the most important for the company in gaining competitive advantage. The choice of knowledge management strategy will then in turn have implications for the choice of HR-strategy (Hansen et.al., 1999)

KM Strategy	Codification	Personalization
Knowledge resource	Knowledge reuse	Knowledge creation
Prioritized KM process	Develop electronic systems for knowledge storage and reuse	Develop social networks for knowledge creation and sharing
Implications for HR	Employees require competence in implementation of solutions. Training by e-learning, Development of IT skills. Motivate and reward employees for codification of knowledge	Employees require competence in problem-solving. Training by mentoring, Development of social skills. Motivate and reward employees for knowledge sharing

Table 1: Knowledge management codification vs personalization strategy

Source: (Hansen et.al., 1999:108-110)

The ambitions of Hansen et.al. (1999) and Earl (2001), to conceptualize knowledge management strategies are criticized for assuming that business strategy are developed through logical reasoning and careful analysis. These approaches do not account for the limited research, ad-hoc circumstances and emergent nature associated with business strategy development in real-life (Hislop, 2009). However, the codification/personalization concept was further developed by Scheepers et.al. (2004) who found support of this model, but concluded that this knowledge management strategy concept may be used to determine an initial direction of strategy development. Determined strategies may then need to be revised in order to remain effective, depending on contextual factors such as management involvement and learning climate within the knowledge management culture (Scheepers et.al. 2004).

2.2.6 Knowledge management and the human resources

Following the development of a knowledge management strategy the implications for human resource (HR) management includes the alignment of knowledge management- and HR strategies (Zack, 1999; Hislop, 2009) as well as the required strategic fit between knowledge management strategy and the intellectual capital (Wang et.al., 2016). This includes the organizational focus on employee recruitment or retention. Haesli & Boxall (2005) investigated the connection between HR and knowledge management of two companies adopting different knowledge management strategies. This study concluded that the company with a codification strategy, where knowledge was documented and the potential knowledge loss due to high turnover rate was limited, consequently adopted a recruitment strategy. The company utilizing a personalization strategy, where sharing was based on personal interaction and potential knowledge loss due to turnover was significant, consequently adopted a retention strategy. However, a codification or personalization strategy does not automatically imply a

certain HR strategy of recruitment or retention, as there is a necessity to adjust this to the organizational context (Haesli & Boxall, 2005). Regardless of the chosen strategy the HR activities should be tailored to meet the strategic objectives, and the training and development of employees consequently designed to facilitate these. In addition payment and appraisal systems need to support and encourage the desired behavior of employees to meet these objectives (Alvesson & Torhell, 2004). The prevailing labor market may also have implications for strategy development, as a shortage of qualified personnel facilitates employee mobility. This in turn affects the possibilities for knowledge retention within the company, accentuating the importance of a knowledge retention strategy (Hislop, 2009). One problem associated with this is that HR management are rarely involved in corporate strategic decision making, resulting in the management of the human capital not being properly taken into consideration in these processes (Caldwell, 2004). The potential knowledge loss in knowledge intense firms from high turnover rates due to limited employee loyalty poses a significant threat from an economic point of view, and a key element in retaining the essential personnel is the encouragement of workers motivation (Alvesson & Torhell, 2004). As a consequence, regardless of knowledge management approach, motivation of workers participation in knowledge management processes is crucial if they are to be successful. This requires that the willingness and benefits of sharing knowledge overpower the potential negative consequences of it through the development of a knowledge sharing culture (Hislop, 2009).

2.2.7 Knowledge management culture

The knowledge management culture within an organization is closely associated with its HR activities and a company's ability to gain advantage of its human capital is dependent on the organizational culture (Alvesson & Torhell, 2004). Therefore knowledge management initiatives not only need

to link to HR strategies and practices, but also need to be tailored to fit within the organizational culture (McDermott & O'Dell, 2001). In order to facilitate this, the initiatives need to reflect both the visible (real life business problems and organizational style) as well as invisible (core values and networks of social relations) elements of the organizational culture, and subsequently to encourage the desired behaviors through HR policies and practices (Ibid). As such, cultural management and practices may facilitate KM activities, by encouraging workers motivation through the fulfilment of the employee's psychological contract. This concerns the expectations and obligations between the workers and the company, and is linked to the attitudes and behaviors of the workers and their commitment to the organization (Hislop, 2009). Alvesson & Torhell (2004) develop the psychological contract further into the *concept of personnel*. This includes the company's fundamental understanding of what kind of employees it wishes to attract, the offerings (payments and benefits) provided to the employees and the actions of the company to develop their competences. Furthermore it involves the shaping of motivation and identity of employees through HRM and organizational processes, and the communication of cultural meanings and beliefs (Alvesson & Torhell, 2004). The cultural role of shaping workers' attitudes towards knowledge sharing is thus associated with an identity construction and feelings of belonging, together with a sense of mutual trust among employees and between employees and management (Newell et.al. 2007). Hislop (2009) suggest five cultural characteristics likely to enable knowledge management incentives: knowledge sharing as cultural norm, strong and collective identity among employees, inter-personal trust among colleagues, fair organizational processes and high levels of trust and commitment from employees to management (Hislop, 2009). Moving forward from suggestions, Mueller (2014) tested proposed hypotheses in a study of organizational culture and knowledge sharing. This enabled the identification of five factors affecting knowledge sharing processes. These

include: Dedication of time to knowledge management processes, openness within the organization, organizational structure and output- or employee orientation (Mueller, 2014).

The complex context of aligning knowledge management strategies with HR-practices and organizational culture may provide significant challenges for senior executives in designing and implementing knowledge management incentives.

2.2.8 Challenges for senior executives in managing knowledge

Concluding the previous chapters, the challenges facing senior executives in managing knowledge within their organizations are significant. As described from the practice-based perspective in this study, these challenges include the development and utilization of knowledge management processes and activities through a knowledge management strategy. Furthermore, these challenges are associated with creating strategic fit and alignment with the prevailing knowledge culture and the HR strategies and practices within the company (McDermott & O'Dell, 2001; Hislop, 2009; Wang et.al., 2016). Senior management play a crucial role in knowledge management work (Ahmed et. al, 2007), and in order for them to facilitate an effective use of knowledge within their organizations they need to overcome knowledge barriers, which may be the result of the inherent unequal power distribution between management and employees (Ahmed et. al, 2007).

In order to overcome knowledge barriers the design and implementation of knowledge management processes and activities should therefore involve analysis of the intended recipients of the knowledge management incentives, and to what extent there may be actual or perceived negative effects for employees by these initiatives (Hislop, 2009). A real or perceived loss of power and status for the individual may result in a reluctance of sharing knowledge, due to a fear of becoming less valuable for the organization,

which potentially could result in losing their employment (Renzl, 2008). Following this is the understanding of trust as a key concern in facilitating knowledge sharing, where a trust built up over time based on goodwill or friendship is stronger than a trust originating from formal obligations (Newell et.al. 2007). This includes the trust employees have for their management, where an increased trust in management facilitates increased knowledge sharing among colleagues (Renzl, 2008). Inadequate or absence of trust may consequently pose a countering factor of central knowledge management initiatives. One example of this is senior management participation or involvement in internal IT-based company groupware, or sharing communities. An insecurity of senior management interpretations and use of information posted in these communities may result in a reluctance of sharing knowledge and present ideas that are not in line with official company practice and policy (Hislop, 2009). Willingness to participate in knowledge management initiatives may also be related to what extent employees feel involved in the decision making process, where a possibility to affect decisions may provide a sense of value for the employees and encourage knowledge sharing (Kim & Mauborgne, 1998). Ahmed et. al (2007) describe a number of critical factors for senior management, in order to facilitate successful knowledge management initiatives in their organization. These include: The emotional and financial commitment to knowledge management processes and the encouragement of learning and knowledge sharing through personal behavior and actions. Understanding knowledge barriers from an employee point of view, as well as organizational, and recognizing the difficult balance of formal and informal management of knowledge. Aiding knowledge projects by providing support from the entire organization and encourage development without the implementation of rigid control systems (Ahmed et. al, 2007).

The reasoning of Ahmed et. al. (2007) arguably promotes the idea of leadership as a vital part of knowledge management. By encouraging learning and knowledge sharing through personal behavior and actions, carefully applied leadership may constitute a valuable alternative to formal managerial interventions in facilitating knowledge management activities and processes within organizations.

2.3 Leadership

2.3.1 Leadership in knowledge management

Leadership work in organizations is typically concerned with purpose and meaning, values and moral, personal problems and conflicts, group relations and work climate, as well as supporting employee development (Alvesson et.al, 2017). The involvement in these activities means that senior executive leadership impact knowledge management processes both directly through official encouragement and support, as well as indirectly through personal behavior and actions (Ahmed et. al, 2007). Senior executives are key enablers in knowledge management within an organization and their leadership has major influence on the development of the organization, however few studies have examined the roll that top management leadership play in knowledge management activities (Luo et.al, 2014). The limited research on leadership in knowledge management has mainly focused on transformational leadership, and there is a veritable consensus in knowledge management literature that this leadership style is the most suitable form (Hislop, 2009). However, leadership theory is continuously improved worldwide, and subsequent changes and additions proposed in the development of different leadership models (Alvesson et.al, 2017). Transformational leadership was developed from political leader theory in the late 70's and has occupied a central role in the leadership discourse ever since. Although reaching significant popularity, the concept has in recent

years generated growing critique (Berkovich, 2016). This includes critique on the concept of being too idealistic, promoting a heroic picture of leaders unable to fail (Fourie & Höhne, 2019). Van Kippenberg & Sitkin, (2013) offers criticism of the distinction between transactional leadership as the boring management side versus transformational leadership as the exciting leadership side, and propose the abandonment of the term altogether (Van Kippenberg & Sitkin, 2013). Furthermore the wide scope and broad variety of different themes incorporated in transformational leadership makes practical application of it difficult, and the results in the measurement of its effect unreliable (Alvesson et.al, 2017). (Berkovich, 2016) continues this critique concluding that there is an absence of distinctiveness from other elements of leadership, particularly empirically, and that transformational leadership mixes and confuses behaviors and effects causing a tautological effect: If it is ineffective – it is not transformational leadership (Berkovich, 2016). More focused studies conducted on leadership in knowledge management may also be used to question the dominance of the wide transformational leadership concept within knowledge management research. As one of the exceptions from the traditional transformational leadership focus, Luo et.al (2014) investigated the connection between leadership varieties and knowledge transfer in top management teams, and found that different leadership characteristics generated different knowledge management outcomes in the organization (Luo et.al, 2014).

The increasing critique of the concept, and subsequent development of leadership theory, raises questions of a possible need to move beyond the concept of transformational leadership when examining the role of leadership within knowledge management. This study offers an alternative in adopting a wider approach on leadership in knowledge management, in order to facilitate new theoretical perspectives and increase the understanding of how leadership may influence knowledge management processes and activities.

Subsequently a contemporary model with clearer distinction between the differentiating elements of leadership (Berkovich, 2016), arguably offering a more comprehensive understanding of leadership, is chosen to analyze the context of senior executives in knowledge management processes and activities within their organizations. Thus, the 5P model and the works of Alvesson et.al (2017) will form the main theoretical baseline for this part of the study.

2.3.2 The 5P model

The 5P model consists of five varieties of leadership: The prophet, the preacher, the psychotherapist, the party-host and the pedagogue. It is a model for categorizing leadership characteristics by the use of metaphors, in order to emphasize the distinct features of leadership as a set of practices. These all affect cultural meanings but in different ways (Alvesson et.al, 2017). The categories are not exclusive, and a leader normally displays and utilizes characteristics from different categories. However, developing proficiency in one category demands skill and work effort, often at the expense of other qualities, and therefore it is difficult to be highly proficient in all categories (Ibid). The underlying descriptions of the 5P model are based on the definitions of Alvesson et.al, (2017:108-132), unless other sources are explicitly specified.

2.3.2.1 *The prophet:*

This leadership category is mainly concerned with establishing a shared vision in order to direct the ambition of the work towards a common direction. An essential element is the construction of an appealing message that can capture the hearts and minds of the organizational members, in order to create meaning, purpose and commitment to work through methods such as the use of storytelling. Narratives and storytelling as a means to evoke feelings and inspire lets people understand corporate strategies on a personal level. Potential upsides of this method is the powerful internal motivation

and enthusiasm within organizational members, when convinced of the legitimacy of the story, by providing a sense of partnership and encouraging personal commitment to the process (Adamson et. al., 2006). Putting the narrative into context and analyzing it enables sensemaking, which in turn can create meaning for the individual and generate a coherent perspective of the organization (Reissner, 2005). The guiding vision and the ability to gather followers around it are essential parts of the leadership skills, together with the capacity to train and organize their team in order to transform that vision into reality (Bennis, 2009). However, a description of an ideal future needs to be both challenging and realizable to enhance motivation for the organizational members to adopt the vision and not disregard it as an unrealistic fantasy.

Personal characteristics: Charismatic, convincing, visionary, inspiring,

Associated concepts: Transformational leadership, charismatic leadership, visionary leadership

(Alvesson et.al, 2017:111-114)

2.3.2.2 The preacher:

This leadership category is mainly concerned with influencing morals and values. By praising and adopting the virtues of high moral standards and personal integrity, the leader embodies what may be perceived as the “good” leader. With a personality centered on altruism, the leader helps, encourages and supports the employees in their own self-development. This includes helping subordinates to evolve in the areas of accepting responsibility, taking initiative, setting personal goals, problem solving and the capacity for self-leadership. Promoting the empowerment of employees, the leader may be seen to adopt the role of a servant. The servant leadership requires attention to humane values such as morale, integrity and respect with a strong correlation between individual and organizational behavior connected to

these values. These skills need to be acquired gradually by practical experience, rather than concentrated and in theoretical form. Leadership in this form embodies the idea that personal beliefs and relationships outweigh corporate policy and structure. (De Pree, 2004). This includes the importance of emphasizing integrity as a crucial characteristic in a leader to build trust amongst the followers, and allow the development of a culture of sincerity and honesty (Bennis, 2009). The culture encourages risk taking, resulting in people embracing mistakes as a possibility to learn, daring them to dissent and to speak their mind. As such, it is not a concept only involving honesty as a part of the personal growth, but also constitutes a means to create a sound corporate culture where ideas and decisions can be challenged, viewing mistakes as a normal part of development and the future as an opportunity (Ibid) The importance of integrity and morale is reflected in the behavior of the leader where issues such as countering discrimination, business ethics and corporate social behavior are core concerns. Furthermore the leader adopts a listen more/talk less approach, promoting independence and altruism by putting the employees first, the organization second and themselves last. Emphasizing the importance of shared values the leader preaches the idea of being good and doing good.

Personal characteristics: High moral, humble, altruistic, empathic, ethical, inspiring, comforting, idealistic

Associated concepts: Authentic leadership, servant leadership, paternalistic leadership

(Alvesson et.al, 2017:114-118)

2.3.2.3 The psychotherapist

This leadership style is concerned with addressing the emotional well-being of employees by targeting their inner needs as a means to counter the contemporary working issues of stress, uncertainty and anxiety. Recognizing

the individual's needs facilitates emotionally balanced employees, which is essential in improving individual and corporate performance. Utilizing a considerate approach to the individual the leader talks, but even more importantly listens, to the employee in a way that make them feel acknowledged and appreciated for their individual qualities and efforts. Closely related to this is the view of the leaders' emotional intelligence qualities (EQ) as relatively more important than IQ and technical expertise, in the ability to adapt to the constantly changing surroundings and contexts of business life. The leadership work of this style aims to influence the way employees understand themselves, and to align their identity and feelings with the objectives of the organization. This includes diagnosing problems, as well as bridging and solving conflicts related to personal and social issues.

Characteristics: Relationship-oriented, people-oriented, considerate, listening, emphatic

Associated concepts: Transformational leadership, Relationship-oriented leadership, people-oriented leadership, considerate leadership

(Alvesson et.al, 2017: 118-123)

2.3.2.4 The party-host

This leadership style is concerned with addressing the importance of relationships in the workplace and creating a positive work climate. Similar to the psychotherapist, relationships and the emotional well-being of employees is at the center of leadership ambitions. However, this is primarily achieved through social activities and by creating a sense of enjoyment at the workplace. The informal and positive work climate is viewed as a means to accomplish an honest and open culture where creativity, unconventional thinking and sharing ideas are facilitated, which in turn can be used to improve organizational productivity and performance. The emphasis on consideration is mainly focused on the social context, such as encouraging

small talk, greetings and developing a first name cultural basis between managers and employees. This approach aims at creating an informal and friendly climate that facilitates loyalty to the organization through the collective social well-being of the group and the use of humor. The collective spirit also satisfies the individual's need for being special and recognized as a part of the group, which fosters a sense of trust and inclusiveness for the individual. Humor may also serve as a countermeasure against social and organizational barriers, promoting cross-hierarchical interactions, as well as potentially reducing the amount of stress and anxiety perceived by organizational members.

Characteristics: Relationship oriented, social, informal leader, humorous, considerate

Associated concepts: Relationship-oriented leadership, people-oriented leadership, considerate leadership

(Alvesson et.al, 2017: 123-126)

2.3.2.5 The pedagogue

This leadership style is concerned with the encouragement and support of individual and organizational learning and cognitive development. It involves explaining responsibilities and demands as well as delineating tasks and work procedures. Central in this is the idea of the leader as a facilitator of learning. By coordinating and guiding the employees, the leader can affect the sensemaking and influence the employee's understanding and meaning of work. This may be specifically relevant in situations where the job descriptions are complex and require extensive coordination and collaboration with adjacent fields of work, and where daily operations require continuous decisions by the employee between prioritizations and trade-offs. Work induced dilemmas such as routines vs flexibility, risk taking vs responsibility and innovation vs proven methods may incline the

employee to require guidance from the leader. The pedagogue is not to be mistaken for being an authoritarian expert in all situations, but rather aims at helping people frame references, thereby defining reality and providing a coherent meaning of the job and the organization as the working environment. In this light the leader may be viewed as an interpreter and guide, empowering and encouraging the employees to develop their individual skills and competences. The guiding role is closely related to the view of the leader as an informal coach. This entails helping people to evolve by asking questions, rather than providing answers, and to construct tailored challenging tasks that may facilitate individual learning and development.

Characteristics: pedagogic, coaching, mentoring,

Associated concepts: Transformational leadership, coaching leadership, mentoring leadership, teaching leadership

(Alvesson et.al, 2017: 127-131)

3 Methodology

3.1 Summary

This study is a combination of descriptive and explanatory (descripto-explanatory) research (Saunders et.al, 2009), on a multiple-case study of four knowledge intense firms. This study was conducted using qualitative methodology, with a multi-method combination of qualitative and quantitative techniques, through the combined use of interviews and questionnaire in data collection. The questionnaire served the purpose of triangulation by method and provided data for the interviews. The interviews were semi-structured, with minor parts consisting of structured quantitative questions (Saunders et.al, 2009) and primarily conducted face-to-face on a one-to-one basis. The analytical approach utilized on the collected data was thematic analysis (Braun & Clark, 2006). The thematic analysis was used to find themes from the questionnaire to create the theoretical framework and interview design. Utilizing an abductive approach, these themes were refined through literature review, which resulted in the focus on the relation between knowledge management strategy, HR strategy and knowledge sharing culture. These themes were used during the interviews to investigate their relation to each other, and their overall connection to senior executives and their leadership. The resulting findings from the interview sessions were used in conjunction with the quantitative data from the questionnaire.

The selection of companies within this study was based on regional (southern Sweden) knowledge intense companies, who put particular emphasis on the indirect methods of knowledge management processes and activities. All of the companies are medium- to large sized companies, with number of employees approximately ranging between 200 and 3000. The individual participants were chosen based both on their formal position and key involvement in knowledge management processes, and they all have

significant leadership experience and occupy senior positions within their companies. In total 14 senior executives were interviewed during the research process.

Research ethics was considered during the whole research process in order to ensure privacy, voluntarism, consent, and confidentiality for the participating companies and individuals (Saunders et.al, 2009)

3.2 Research design

As this study aims to investigate how senior executive leadership is related to knowledge management activities and processes, and by this aiming to explain a certain described situation, the overall nature of the study could be described as a combination of descriptive and explanatory (descripto-explanatory) research (Saunders et.al, 2009). The combination entails presenting a contextual account of the subject of study, and to clarify relationships between variables within the study by explaining associations between-, or reasons for them (Savin-Baden & Howell Major, 2013)

The study initially adopted an inductive approach, where the results and analysis of collected data would form the basis for theory (Bell et.al, 2018). However, as the literature review was expanded during the research process and secondary data with existing theoretical concepts emerged, the result was a movement back and forth between data and theory. Consequently a combination of inductive and deductive approaches was utilized, resulting in an abductive approach in this study (Saunders et.al, 2009). This may be illustrated by the process of how quantitative data provided themes and insights for further literature review, which in turn revealed existing theory that formed the initial theoretical framework. The data and theoretical framework were used to design the qualitative phase of the research, which generated new data that was analyzed and supported the refinement of the

theoretical framework. The abductive process is further elaborated in the data analysis section.

The study of the role of senior executive leadership in knowledge management involves gaining deeper understanding and meaning of a phenomenon through subjective interpretation by the researcher, which predominately is associated with qualitative research approach (Bell et.al, 2018). This approach also involves the focus on how people think and act in everyday life and that context and persons should be viewed as a whole, rather than as separate measurable variables (Taylor & Bogdan, 1998). Therefore this study adopted a qualitative methodology, utilizing a multi-method combination of qualitative and quantitative techniques for data collection within the qualitative research design (Saunders et.al, 2009). The addition of quantitative data to the qualitative data collection increases the ability to analyze, compare and relate to it, in order to determine the relationship between variables and compare results within- and between the different objects of study (Savin-Baden & Howell Major, 2013)

The available timeline of nine weeks from start to finished product imposed several limitations on the research design and in the achievable results, predominately due to the limitations in available time for actual research versus the production of the final report and the associated presentation of it. Another major limitation was the ability to gain access to the organizations in order to collect relevant data and analyze it (Saunders et.al, 2009). Given these limitations and the complexity of leadership and human behavior associated with knowledge management activities, a broad investigation with ambition to generate global theories and wide generalizability was likely not achievable. Therefore, the aim of this study was to maintain a narrow focus in order to facilitate sufficient quality in the research results, accepting the trade-off of lower generalizability for deeper understanding.

This research is concerned with examining relationships between people and the structural context of their workplace, and recognizing the dynamic interaction between the two, which is associated with case studies (Savin-Baden & Howell Major, 2013). Ideally in a case study, a combination of observations, interviews and surveys could be used in order to facilitate triangulation, thereby enhancing the quality of the collected data and the trustworthiness of the study (Saunders et.al, 2009). However the limited timeframe of the study would likely hamper the ability to join the organizations and draw relevant data from observations, and as a consequence the reliability of a single-case study could be negatively impacted. This argued for the use of a multiple-case study, since this method can offer stronger evidence in support of the findings from multiple sites than a single-case study, avoiding a snapshot context through comparison between sites (Savin-Baden & Howell Major, 2013). Furthermore, this reduces the risk and impact of respondents' potential wish to preserve the reputation of their site, which could impact honesty in replies (Ibid). Eventually, the benefits of multiple sources were deemed to outweigh the benefits of a single-case study under the current circumstances, and consequently this study was conducted as a multiple-case study in order to enhance the quality of the research results (Saunders et.al, 2009).

3.3 Data collection

The research topic, together with the limitations in conducting observations during the multi-case study, suggests the combined use of interviews and questionnaire in data collection. Interviews are an appropriate method of data collection within case studies (Collies & Hussey, 2013). The questionnaire enables triangulation by method and may form a base for the design of the consequent semi-structured interviews, which is relevant when the research aim is concerned with in-depth understanding of a phenomenon (Saunders et.al, 2009). Following an abductive approach of moving back and forth

between data and theory, the collected data within this study consisted of both primary data from questionnaire and interviews, and secondary data gathered through literature (Collies & Hussey, 2013).

3.3.1 Selection of organizations

Selecting suitable sites for a multiple-case study should recognize the quality benefits from site selection based on similarity between sites (Savin-Baden & Howell Major, 2013). This was acknowledged in this study by investigating the context of the knowledge intense firm, and selecting companies according to similarity within this context. The selection of companies within this study was conducted in four stages. Initially an internet search on regional (southern Sweden) companies within knowledge intense businesses was performed in order to produce a list of possible study objects. Secondly, the companies on the list were contacted using a broad approach without making further delimitations. The initial contact included a description of the purpose and scope of the study, as well as the intended methodology and required time for participation. An expressed interest of participation in the study from the organization resulted in the third stage of asking questions to the potential objects on how general knowledge management operations were conducted within the company. The answers to these questions and the descriptions of these procedures, together with a continued expressed interest of participation in the study, facilitated the fourth and last stage of this purposive sampling (Saunders et.al, 2009). This was conducted by reviewing the answers from stage three, resulting in the final selection of the companies that put particular emphasis on the indirect methods of knowledge management processes and activities, in order to ensure alignment between the investigated companies and the focus of this study.

The final selection resulted in four companies being selected. All of the companies are medium to large sized companies, with number of employees approximately ranging between 200 and 3000. The selection was based on a

segmented mix of professional service and R&D companies (Alvesson & Torhell, 2004), and two companies were chosen out of each segment. This was conducted in order to facilitate cross case-analysis between segments, to be able to develop a more coherent understanding of the relationship between senior executive leadership and knowledge management procedures within the context of the knowledge intense firm.

3.3.2 Selection of individual participants

The choice of conducting a case study, and the time constraints preventing the possibility of interviewing all senior executives within the studied organizations, resulted in the selected method for individual participant data collection of non-probability purposive sampling (Saunders et.al, 2009). The participants were chosen based on their organizational position and relation to knowledge management processes to generate large amounts of information through intensive study, in order to achieve accurate representation of the context (Savin-Baden & Howell Major, 2013). A discussion with the appointed point of contact at each company resulted in the final selection of participants. This was based both on their formal position and a key involvement in knowledge management processes within the company. The selected participants all have significant leadership experience and all occupy senior positions within their companies. These include CEO, Vice president, General Manager, Business Director and similar top ranked positions. The conducted purposive sampling in this study is a combination of homogeneous and heterogeneous sampling, as diversity in selecting samples for data collection is important from a reliability perspective (Saunders et.al, 2009). Homogeneous sampling, in the sense of similarities of significant leadership experience and organizational position, was chosen in order to facilitate in-depth understanding of the senior executive leadership in knowledge management activities (Savin-Baden & Howell Major, 2013). Heterogeneity, such as age, gender and ethnical

background, among the subjects of study is desirable as it may reveal differences and key themes related to this area. This may increase the trustworthiness and the likelihood of replicability in results (Saunders et.al, 2009). Thus, the factor of heterogeneity was also accounted for when conducting the purposive sampling. However, the limited heterogeneity within the organizations top management imposed limitations on this possibility. In total 14 senior executives were interviewed during the research process. The age span within the group was 27 to 64 years, with employment times in the companies ranging from 7 to 22 years and time in office ranging from 3 months to 10 years. All participants were Caucasian originating from Western Europe, and 5 of the respondents were women.

3.3.3 Questionnaire design

The questionnaire was designed to meet the critical factors of clarity, comprehensiveness and acceptability. This includes the respondent's possibility of understanding the questions, facilitate a reasonably complete range of alternatives and avoiding questionnaires that are overly lengthy or could be interpreted as invading the privacy of the respondent (Rea & Parker, 2005). In designing the questionnaire, the majority of collected variables were opinion variables as they may uncover the respondents' opinions and understandings of their leadership and the relation to knowledge management processes. Thus, the use of rating questions as a baseline for the questionnaire was utilized as they are suited to collect data on opinions (Saunders et.al, 2009). However behavior variables are also interesting in this case, since the actions of the respondents may be closely related to their role in these processes. Consequently, the rating questions were supplemented by ranking questions in order to ensure the collection of relevant behavior- variables (Ibid). The questionnaire serves the purpose of triangulation by method and acts as a baseline for the interview section, which resulted in the choice of combining close- and open ended questions

within the questionnaire. Close-ended questions are advantageous in providing direct transfer of comparable data, but may be insufficient in providing answers on complex questions (Rea & Parker, 2005). This is more suitable with open-ended questions as they enable respondents to elaborate, but on the other hand these require subjective categorization and interpretation of both the respondent and researcher (Ibid). The subsequent questionnaire consists of five open-ended rating questions to provide key themes on complex issues, three close ended rating questions to facilitate transferable data, and two ranking questions to facilitate transferable data on behavioral variables. In order not to lose meaning during translation, the questionnaire was designed in English. The subsequent risk of misinterpretation of the questions was mitigated by the primary use of face-to-face delivery and collection or a specific follow-up session through video conference, which facilitated the respondents' possibility to ask for clarification of the content of the questionnaire (Saunders et.al, 2009).

3.3.4 Interview design

The interviews and conducted face-to-face on a one-to-one basis, which is relevant in conjunction with a complex nature of the topic and a large number of questions required to ensure data quality (Savin-Baden & Howell Major, 2013). On the occasions where this was not feasible due to geographical dispersity, video conference interviews were conducted instead, as this represent a suitable alternative (Ibid) .The interviews were primarily semi-structured, with minor parts consisting of structured quantitative questions (Saunders et.al, 2009). The semi-structured interview is an appropriate method to use when there is only one opportunity to interview the respondent, and it provides the researcher with the ability to adjust the order of questions depending on the respondents replies (Bell et.al, 2018). The questions were predominantly open-ended, as this enabled the respondents to talk freely, elaborate and explain their answers quality (Savin-

Baden & Howell Major, 2013). These were complemented by the use of collected data from the questionnaire as a baseline for constructing probing questions to gain a deeper understanding on core issues (Saunders et.al, 2009). The interview sessions followed the principle of moving from general to specific with gradual introduction of specific probing (Savin-Baden & Howell Major, 2013). This involved the utilization of a few selected structured quantitative questions, which is useful when the objective is to collect quantifiable data (Saunders et.al, 2009). Consequently, these were used to gather transferable quantitative data on complex issues, while simultaneously offering the respondents the opportunity to elaborate on their answers, thereby minimizing the risk of misinterpretation of the specific data. The questions on leadership may be used to illustrate this process of moving from general to specific, and open-ended to structured questioning:

Initially the respondents were asked to describe their leadership work freely with their own words. Further along in the interview they were encouraged to share personal experiences of their work as leaders of the companies and specifically in knowledge management situations and incentives, in order to elaborate on their leadership role in knowledge management processes and activities within the organization. This included describing their contribution as leaders to these processes, as well as what leadership characteristics they felt they needed to develop the most in order to facilitate an effective use of knowledge within their organizations. In the closing structured questions the respondents firstly were asked to describe their personal leadership work in daily operations from a form containing the description of leadership characteristics, categorized according to the 5P model. To avoid intentional or unintentional preferences of the popularized naming (the prophet, preacher, psychotherapist, party-host & pedagogue), the namings were removed from the form and a description of the main characteristics, key words and content of the varieties were provided. In alignment with

Alvesson et.al.(2017) notion that leadership varieties are not mutually exclusive, the respondents were asked to rank the categories in the order they felt were appropriate to describe their leadership work. This included the possibility of choosing one, several or all of the categories. Secondly they were asked to describe the senior executive leadership characteristics that would most effectively contribute to the knowledge management processes of the company, by ranking the categories in the order they felt were appropriate from the same form.

The analyzing of the collected qualitative data from interviews involves transcripts of the conducted interviews. This is a crucial and problematical part as it includes both intentional and unintentional interpretation of the interview content (Graneheim & Lundman, 2004). Moreover the transcript needs to take into consideration non-verbal communication such as mood, mimic, body language etc. in order to ensure that the overall meaning and content is preserved (Savin-Baden & Howell Major, 2013). As a researcher, one must be aware of the problematical situation of being both the collector and analyzer of a certain piece of information, and the inherent risk of influencing the process consciously or inadvertently through personal experience (Graneheim & Lundman, 2004). Thus, in order to increase reliability and lower the risk of translation related errors during transcription, the preferred use of language during the interviews was English. However since the majority of respondents primary language was Swedish, the individual respondent's comfortability with conducting an interview in a secondary language was taken into serious consideration, in order not to degrade the quality of collected data due to language barriers.

3.4 Data analysis

The purpose of data analysis is to convert data into meaningful parts through the interpretation of it, as a means to answer the research question (Savin-Baden & Howell Major, 2013). This study is concerned with identifying, analyzing and reporting patterns on senior executive leadership in knowledge management processes and activities, which is suitable in conjunction with the analytical approach of thematic analysis (Braun & Clark, 2006).

Thematic analysis involves immersion into- and repeated handling of data to recover embedded themes. This approach does not focus on detailed first or second cycle coding but rather emphasizes a general sense of the data and a meaning of the context as a “whole”, in order to recognize connections and interactions between themes (Savin-Baden & Howell Major, 2013). In this study the thematic analysis was initially used on the qualitative data from the questionnaire in order to find themes appropriate to address in the creation of the theoretical framework and subsequent design of interview sessions, which included uncovering specific subjects that were interesting to investigate with probing questions during the interviews. The thematic analysis of the questionnaire was primarily conducted from the open-ended questions, and resulted in the creation of three key themes under the umbrella of senior executive leadership that were implemented in the theoretical framework: Knowledge management strategy, HR and organizational culture. Utilizing an abductive approach, these themes were further refined through literature review as the topics of HR and organizational culture were considered to be too wide to facilitate a focused study. This refinement resulted in the focus on the relation between knowledge management strategy, HR strategy and knowledge sharing culture. These three themes were used during the interviews to investigate their relation to each other, and their overall connection to senior executive leadership.

The analyzed quantitative data was used both as a foundation for probing questions during the interviews, and as direct transferable data to the final part of combining the quantitative data with the interpretations of the qualitative data. During the interviews the quality of the data from the questionnaire was examined by comparing it to the participants' answers in the interview and by asking participants to elaborate on their answers in the questionnaire. The data from the interviews were compared against the theoretical framework and analyzed by investigating connections and interactions between the themes, in order to identify and distinguish patterns that could be observed between the different companies. The next step of the process was moving from analysis of what was said (identifying patterns) to interpretation of the meaning of the data. Savin-Baden & Howell Major (2013) highlights this critical process, as it involves interpretations from both the interviewee and the researcher. The acknowledgement of researcher subjectivity in the interpretation of data combined with the uncertainty of interviewee's sincerity or quality of their assessments, needs to be brought forward as a part of describing the research process, and the involvement of subjectivity in this process is inevitable. However, by an honest account of recognizing both participants and researchers involvement in the shared "truth", such a truth will most often be the result of- and achieved through dialogue (Savin-Baden & Howell Major, 2013). In practice the strategies utilized in interpreting the data during this study included: Recognizing organizing principles – the way participants categorize and talked about themselves and their relation to other people and their organization; Oppositional talk –the way participants define something by stating what it is not, and by examining subtext – what the participant is really arguing but not explicitly stating (Ibid). In order to ensure data quality and mitigate the problems with researcher and participant subjectivity, which potentially could be accentuated by the researcher's single writer perspective, post-interview feedback contacts with the participants were initiated where they

were able to comment on the interviews, as well as revise and add to their answers and statements.

The resulting findings from the interview sessions were used in conjunction with the quantitative data from the questionnaire, to compare them between the different companies and to review the themes constructed prior to the interview sessions. This facilitated cross-case conclusions from the results and the ability to contextualize the findings with literature (Mills, 2006).

3.5 Research ethics

The general concerns of ethics needs to be considered during the whole research process. These include ensuring privacy, voluntarism, consent, and confidentiality as well as preventing harmful experiences such as pain and discomfort (Saunders et.al, 2009:185). The ethical concerns of gaining access to the objects of study are related to the organizations and individuals participating in the study. The voluntary participation needs to be amplified to the level of informed consent, where the organizations and individual participants receive full information regarding the aim and scope of the research and the collection- and use of data (Savin-Baden & Howell Major, 2013). However, ethical conduct also applies to the researcher's approach to the participants by avoiding intentional or unintentional persuasive techniques in terms of language, contact methods or other manners that may forcefully impose will on the intended participants. This also includes accepting refusal of study participation by organizations or individuals. Additionally assurances and actual protection of the organizational and individual identity and anonymity must be guaranteed by the researcher (Saunders et.al, 2009). The use of non-specific descriptions of organizations and numerical coding of individuals, in conjunction with the removal of identifiable characteristics to de-personalize participants, was used to ensure these requirements were met. During the collection of data the informed consent continuously needs to be maintained. This includes the

organization's or individual participant's right to withdraw at any time or to only participate in selected parts of the study. The participant's right to privacy and confidentiality must be guaranteed, which applies both to the collected data and to the methods by which they are collected, in order to ensure that this is conducted in a way that is not harmful. This may be accentuated when collecting qualitative data through interviews, as it enables the researcher to gain increased control of the participants and access to potentially sensitive data (Saunders et.al, 2009). To mitigate this problem these rights were described and explained to each participant personally prior to their participation. Furthermore this stage put additional requirements in terms of the quality and conduct of the actual research. The aim of the research as stated during the access gaining phase should not be altered, since this may constitute deceit of the participants, and the collection of data should be conducted in an objective way as to ensure trustworthiness and reliability of the study (Ibid). During the phase of data processing and storage there is a requirement to adhere to formal legislation regarding protection of individual's privacy, both when collecting and storing data. This was mitigated by the use of a stand-alone computer for data collection, storage and analysis, without external access in the form of networks or internet connection. When analyzing the data and constructing the final report the continued preservation of individual anonymity is vital. This includes the need to maintain objectivity and ensure that the report of the collected data and consequent analysis is conducted in an accurate and representative way (Savin-Baden & Howell Major, 2013). Ethical concerns were also taken into consideration regarding the use of the completed report and possible unexpected or negative consequences for the organization or individual participants (Saunders et.al, 2009).

4 Empirical findings and analysis

Working with the collected data, an interconnection between leadership and the themes of knowledge management strategy, HR strategy and knowledge sharing culture became evident. The separate subjects are intimately related to each other, and as a consequence clear-cut boundaries where one subject ends and another begins are hard to define. This also applies to the analysis of the data, since data collected on one subject may have implications for the analysis of another subject, and consequently a purely descriptive result section with a separate analysis section would not contribute to a coherent understanding of these complex relationships. Therefore the ambition of this chapter is to collectively account for the empirical findings and analysis of the three themes, their relation to each other, and their overall connection to senior executives and their leadership (Figure 1).

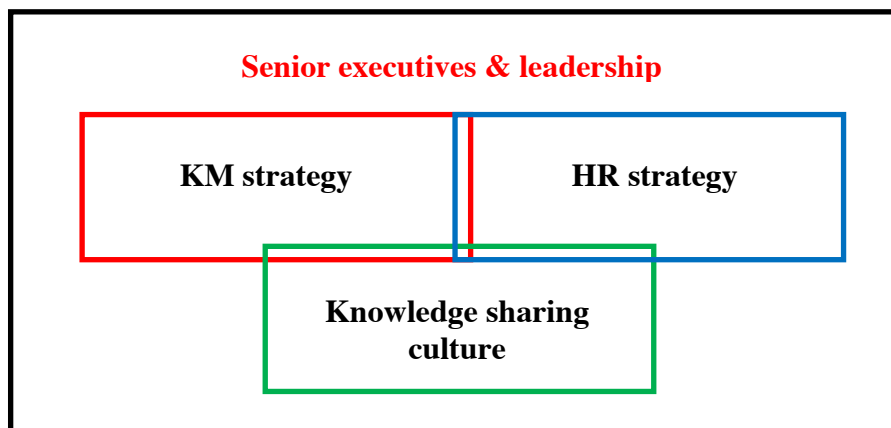


Figure 1: Relations between themes

The presentation of the findings and analysis in separate themes is a way of structuring the chapter for increased readability and to facilitate direct references to the theoretical framework (Savin-Baden & Howell Major, 2013). However, as the relationship between the subjects suggests; a back and forth-, cross-theme discussion within the findings and analysis section is

natural. This implies to interpret/understand the account of the findings and analysis of the themes as a whole, rather than as pure separate entities.

4.1 Summary

Knowledge was considered as a core competence in the companies and a critical part of the companies' current and future success. The senior executives in the study demonstrated a practice-based perspective of knowledge, resulting in an emphasis of indirect methods and social knowledge sharing within the companies. However, despite the perceived importance of knowledge, an absence of an articulated overall knowledge management strategy was evident, including an insecurity of how knowledge management fit into the business strategy and linked to the HR-Strategy. This was caused by not considering knowledge as a variable on strategic level, which was recognized by the executives as problematic. The knowledge management processes and activities within the companies could be seen to follow an emerging personalization strategy where 70-80% of the knowledge work was concerned with social sharing of knowledge, compared to 20-30% of knowledge sharing through ICT.

The lack of an articulated knowledge management strategy did not preclude the implementation of knowledge management activities within the companies. However, the unconscious adoption of an emergent strategy could be seen to create problems aligning the knowledge management strategy with the HR-strategy of the company. This resulted in only partially addressing the HR-implications of a personalization strategy (Hansen et.al, 1999), such as training by mentoring, whereas incentives and rewards to promote knowledge sharing were largely unaddressed. The connection between knowledge management and HR-strategy was mostly visible in the decision and utilization of an employee retention strategy instead of a recruitment strategy. The main driving factor behind this decision was financial. The companies' growth goals and the large costs associated with

recruiting and training new employees served as an incentive to retain qualified personnel, and employee motivation was seen as the key ingredient to facilitate the retention strategy. Indirectly this employee retention strategy also functioned as a knowledge management activity through knowledge retention. The senior executives utilized their leadership position to implement knowledge management processes and activities within the HR-domain, but more operationally and indirectly in daily practices rather than as the result of a central knowledge management strategy. The emerging knowledge management activities of the companies could be seen as a part of-, and outcome of the HR strategy, rather than as actively contributing to the construction and alignment of an HR strategy to the companies' knowledge goals. The partial alignment to the HR-strategy was accentuated by not addressing individual rewards and incentives as an instrument to facilitate knowledge sharing and retention within the company.

An example of successful alignment between knowledge management, HR-operations and knowledge sharing culture was the use of the sales department as breeding ground for senior management positions in one company. The implementation of a knowledge management activity (increasing knowledge on the "core competence" of sales) aligned with the HR-strategy (individual career advancement) while also promoting a knowledge sharing culture (knowledge sharing is important and rewarded), which in turn supported the original knowledge management activity. This illustrates how senior executive leadership and their choice of knowledge management incentives have an influence on the interconnected areas of knowledge management strategy, HR-strategy and the knowledge sharing culture within an organization.

The senior executives' personal impact on the knowledge sharing culture was associated with not constituting bad examples, as well as acting responsibly in accordance with cultural values to promote trust among employees. Trust

as a means to facilitate knowledge sharing was realized through physical meetings, where the possibility to create trust through social interaction also provided an arena to share knowledge. The senior executives recognized the most important factor for knowledge sharing being openness within the organization. However, leadership challenges arose through the inherent tension between managerial intervention and knowledge sharing, which was visible through the creation of a group sharing platform for employees, where subsequent involvement by top management potentially could induce insecurity among employees. This exemplifies the fine line senior executives may need to balance between managerial interventions and permissive leadership when implementing knowledge management incentives

The senior executives felt most associated with the “prophet” and least associated with the “pedagogue” leadership variety (Alvesson et.al., 2017). Nevertheless, none of the senior executives expressed a need to develop coaching or mentoring leadership skills, even though these were singled out as the most important characteristic to facilitate an effective use of knowledge within the organizations. From a pattern perspective this suggests that the importance of coaching/mentoring leadership and its’ potential impact on knowledge management processes and activities, are generally overlooked.

The senior executives’ involvement in knowledge management processes from a leadership perspective was mainly concerned with empowering employees and promoting trust through role-modelling, associated with “preaching” leadership (Alvesson et.al., 2017). By influencing the meanings and understandings of their employees through help and support; the senior executives adopted the role of knowledge facilitators and learning enablers.

4.2 Knowledge management strategy

The senior executives' perceived importance of knowledge within their individual companies were evident during the research process. In the questionnaire, the question of the importance of an effective use of knowledge within the company received an average rating of 9.15 on a scale of 0-10 (Appendix 1), with all respondents rating it between 7 and 10. During the interviews this was elaborated further by the participants, where knowledge was explained to be instrumental to the companies in several ways. These included the notion of knowledge as an essential part of the company's ability to gain competitive advantage:

[... We have to be smarter than our competitors...]

Respondent 2

Knowledge as a critical resource:

[...The knowledge the people possesses (the employees)...we need to utilize it...]

Respondent 7

Knowledge was also concluded as the actual product that the companies provided:

[... We sell knowledge...]

Respondent 4

[... Knowledge is our business...]

Respondent 3

All participants understood knowledge as a core competence of their company and knowledge was considered a critical part of the company's current and future success. The senior executives interviewed in this study expressed a notion of knowledge as intimately related with the people who "possess" the knowledge. This was visible through their way of describing

typical knowledge work within the organization, where the knowing of the employees was demonstrated both intellectually and through their actions.

[...A lot of our knowledge is just not possible to separate and transfer...you have to gain it through experience...]

Respondent 13

[...It's within the people and what they do, and how they do things...]

Respondent 10

This perspective is arguably in line with the reasoning of Orlikowski (2002) and Strati (2007), where tacit and explicit knowledge is inseparable from each other in the individual. Following what is arguably a practice-based perspective of knowledge, the subsequent emphasis of social knowledge sharing in favor of codifying the knowledge was expressed by the respondents:

[... It's mostly mouth to mouth, not much is written down...]

Respondent 3

Further evidence of the limitations and perceived limited value of IT-based systems was visible in the questionnaire, where knowledge sharing through IT-systems was considered to constitute 20-30% of the companies' knowledge management activities compared to the 70-80% score of knowledge sharing through social interaction. However, this clear-cut distinction between IT-systems and social knowledge sharing from Hansen et. al. (1999) induced some ambiguity among the respondents. This was visible through a creation of a third category which incorporated IT-supported digital meetings by some respondents in the questionnaire. During the interviews others expressed insecurity in which category to place these types of meetings, and whether they counted as IT or social sharing. However when asked to elaborate on what the purpose of these meetings were and how knowledge was shared during the meetings, the respondents

emphasized the social part of the meeting, and acknowledged the IT-based solution as a way to overcome physical distance between people rather than as a means to codify specific knowledge. Consequently the digital meetings can be seen as a part of the indirect methods that were favored by the companies in sharing knowledge through social interaction.

Despite the perceived importance of knowledge as a critical resource and a central part of the companies' ability to gain competitive advantage, an absence of an articulated overall knowledge management strategy was evident in all of the investigated companies. In the questionnaire the question on how well defined the company's knowledge management strategy was only received an average of 3.86 on a scale of 0-10 (Appendix 1), with only one of the respondents rating it at 6 or above. This was further elaborated by the respondents during the interviews:

[...There's no specific strategy for knowledge...it's not a variable we've been considering - maybe we should rethink that...]

Respondent 8

The following question in the questionnaire on how well the company's knowledge management strategy was integrated in the overall business strategy produced inconclusive answers. This may have been caused by the perceived unclearly defined-, or lack of knowledge management strategy, consequently resulting in an inability to determine its' integration into the overall business strategy. However, during the interviews a general insecurity of how knowledge management fit into the business strategy was displayed:

[...Maybe some (knowledge) strategy is realized in the business areas, but it's not centrally governed...]

Respondent 3

This may be considered to be in line with the reasoning of strategy as emergent and ad-hoc (Hislop, 2009). However several of the senior executives acknowledged a need-, while others at least realized a potential benefit-, of recognizing knowledge as a variable on the strategic level

[... We don't have a strategy for it (knowledge management) – we probably should have...]

Respondent 12

[...I think that is one of our main problems...that we don't have a clear strategic thinking on knowledge and learning...]

Respondent 9

This follows the reasoning of Choo & Bontis, (2002), on senior executives struggling to articulate the relationship between business strategy and knowledge resources, consequently resulting in a lack of knowledge strategy. Several of the senior executives realized a potential problem with the lack of a knowledge management strategy concerning the responsibility issue. This was acknowledged by one of the few senior executives currently working on incorporating a knowledge management strategy:

[...Nobody owned the question, so I took it...It should really belong to somebody that is not in my position though...]

Respondent 4

The perceived lack of a specific knowledge management strategy did not however preclude the use of knowledge management activities and processes within the companies, and in practice the main use of processes and activities associated with a personalization strategy was evident (Hansen et.al., 1999). This was arguably a logical consequence of a practice-based view of knowledge, where the benefits and subsequent emphasis on social sharing of knowledge were seen to outweigh the importance of codifying knowledge into searchable databases. However, the risk of pursuing a personalization strategy too far was recognized by one of the senior executives:

[... We've started putting demands on them (the employees) to document what they've learned in a specific project for example... If we don't document anything, there's a risk of that knowledge walking out the door...]

Respondent 14

This is in line with the reasoning of Scheepers et.al. (2004), where the initial recommended 80/20 focus ratio of personalization strategy versus codification strategy, may need to be converted to a 70/30 approach in order to reduce potential knowledge loss caused by employee resignation.

The areas where the use of codification strategies were most apparent, concerned reoccurring activities such as regular meetings, project planning, business evaluation and other similar specific procedures, where written guides and protocols were used. These processes were documented and revised regularly to ensure contemporary legitimacy and to optimize the companies' workflows. Most of the senior executives expressed the necessity of following a structured agenda in these processes to increase effectiveness and prevent the "reinvention of the wheel" syndrome. Further use of codification strategies could be observed through the use of intranets as a way to document and share knowledge.

The results from this study correspond with the problems of knowledge management strategy observed by Meroño-Cerdan et.al. (2007) in small-, and medium sized, knowledge intense firms. They concluded that few companies had a clear, deliberate and consistent approach to knowledge management strategy, which could partially be explained by the limited size of the firms and the fact that they were in an initial operating phase (Meroño-Cerdan et.al. 2007). However, the results of this study suggest that this may also be applicable in larger and well established firms where operations are stable and continuous, and when senior executives utilize knowledge management processes and activities, this primarily occurs operationally in common practice rather than derived from a specific central strategy. This

includes difficulties of articulating the relation between-, and subsequently aligning the knowledge management strategy to-, the HR-strategy of the company.

4.3 HR-strategy

The knowledge management activities and processes within the companies were predominately aligned with the personalization strategy of Hansen et.al. (1999). However, the HR-implications associated with the personalization strategy model were only partially acknowledged by the majority of the senior executives. One of the most frequently mentioned applied HR-practices to aid in knowledge sharing within the investigated companies was the utilization of mentoring. This involved conscious decisions from senior management of combining inexperienced and experienced personnel throughout the organization, where the latter functioned as mentors. Mentoring was seen as an imperative part of facilitating knowledge sharing within the companies and to train newly hired personnel, even on top management level.

[... We always put the new kid with the more experienced guy... It's a quick way of getting to know how things are done...]

Respondent 12

However when asked whether this was a central initiative to facilitate knowledge sharing as part of an HR-strategy this proved not to be the case:

[... It's not aligned consciously... it just how we do things and it has proven to be effective for us...]

Respondent 12

In this way the mentoring practice also served as an introduction to the companies' cultural values of knowledge sharing, something that was addressed already at the hiring stage.

[...We have an open climate here...and certain values that we stand for...you have to be able to see yourself in them, that's something we make clear before you come here...]

Respondent 11

The training by mentoring approach was seen as a method to ensure that core values of openness and knowledge sharing were passed on to all employees, and to clarify that the employees needed to be able to adapt and conform to the specific cultural requirements of the company. Consequently, in this case an applied HR-strategy supported the promotion of an open knowledge sharing culture, although this was not a central strategic decision, but rather realized through procedures and practice.

The connection between knowledge management and HR-strategy was mostly visible in the decision and utilization of a retention strategy instead of a recruitment strategy. The results from the questionnaire showed a significant overweight of knowledge retention strategies over knowledge recruitment strategies. A strong majority of the respondents expressed the utilization of a 70-80% focus on knowledge retention within their organizations, compared to 20-30% on knowledge recruitment. These results continued to be expressed during the interviews:

[...We have more focus on retention now than recruitment...it used to be the other way around...]

Respondent 9

The main driving factor behind the extended focus on knowledge retention was financial, and the benefits of increased employee retention were primarily considered from an economic point of view.

[...It's too expensive to lose qualified people...]

Respondent 3

The large costs associated with recruiting and training new employees served as an incentive to retain qualified personnel. Rather than recruiting

new personnel with narrow specific skill sets that would require extensive training in other areas, the companies largely favored training existing personnel in the specific skill sets required. By this, knowledge could again be interpreted as a vital part of the human capital within the companies

[... We always ask: is it cheaper to train than to hire?... a lot of the time the answer is yes... Can we train them (the employees) ourselves or do we need to do it elsewhere...?]

Respondent 14

Continuing the economic focus on HR-incentives, the knowledge retention strategy could also to a large extent be linked to company growth.

[... We want to grow by 20 % in the next five years... let's say this means we need to recruit 50 people... but if we lose 50 along the way we need to recruit 100...]

Respondent 11

The perceived increased importance of employee retention had resulted in HR-strategy being discussed frequently at company senior level, and the HR-domain was considered to have gained increased strategic importance. The senior executives in the study showed a detailed knowing of their companies' HR-strategy, and were able to express it in a more coherent way than the knowledge management strategy. The HR-strategy was considered clearly defined with a strong correlation to the business strategy, and through the descriptions of the application of the HR-strategy, connections to knowledge management activities could be observed. This included the yearly talent management- and performance reviews. During the performance review sessions the employees had the opportunity to express their personal wishes for training and career advancement. These were in turn collected by senior management who during the talent management sessions discussed the individual employees in the organization, in order to identify the will and talent of the individuals, and match them to the requirements of the company. From a knowledge management perspective this HR-initiative could be seen

to serve as a knowledge inventory in order to fulfill current and future knowledge needs for the organization.

In the applied HR-strategy, employee motivation was arguably seen as the key ingredient to facilitate employee retention. This follows the reasoning of Alvesson & Torhell (2004), who also conclude that payment and appraisal systems need to support and encourage the desired behavior of employees (Alvesson & Torhell, 2004). However, noticeably unaddressed topics during the interviews were the development of individual social skills and the importance of rewards and incentives for knowledge sharing to support this strategy, as mentioned by Hansen et.al. (1999) being consequential HR-implications from utilizing a personalization strategy. The executives did however realize the importance of supporting other parts of individual development. This could be observed through conscious decisions of rotating personnel and assigning challenging tasks as a means to induce motivation, thereby encouraging retention of the human capital within the organization. Indirectly this arguably serves as emerging knowledge management activities, as the focus on employee retention subsequently promotes knowledge retention within the company.

In this way the senior executives utilized their leadership position to implement knowledge management processes and activities within the HR-domain, but more operationally and indirectly in daily practices rather than as the result of a central knowledge management strategy. These processes and activities were not necessarily linked to HR in the conscious decisions of primarily retaining knowledge, as much as retaining certain numbers of people related to economic reasons and the companies' growth goals. Consequently, the emerging KM activities of the companies can be seen as a part of-, and outcome of the HR strategy, rather than considering knowledge as a variable; actively contributing to the construction and alignment of an HR strategy to retain knowledge within the company. This argument is

accentuated by the general tendency of not addressing individual rewards and incentives as an instrument to facilitate knowledge retention and to promote a knowledge sharing culture within the company.

4.4 Knowledge sharing culture

The senior executives' understandings of knowledge as embedded in people were also reflected in their notion of how knowledge sharing occurred within their organizations. Several of the senior executives highlighted the importance of physical meetings to facilitate and support knowledge sharing within the organization.

[...The meetings are an arena to share knowledge...]

Respondent 6

In all the companies knowledge sharing was seen as an important and prioritized area, and knowledge sharing was considered a prerequisite for the companies' successful operations.

[...Sharing is expected...If you know something and just sit on that knowledge... that's not OK...]

Respondent 4

[Knowledge in itself is useless... when it's not giving benefits to the company...]

Respondent 8

However several of the executives also realized potential problems in the realization of a knowledge sharing culture.

[...There are problems with (knowledge) hoarding...mostly among the older and more experienced portions of the workforce...it's not that they don't want to share – they just don't know how...]

Respondent 12

[... We have problems with sharing knowledge... how to do it and how to receive knowledge... There's just not enough time... The ordinary work tasks consume all available time...]

Respondent 9

The inherent tension between available time versus reflection on lessons learned and engagement in knowledge sharing activities was acknowledged by several of the senior executives during the interviews. However, when using structured questions at a later stage of the interview to examine cultural factors affecting knowledge sharing based on the conclusions of Mueller's (2014) investigation, the results do not mirror this reasoning.

In this part the respondents, using a ranking order of 1-5 (1 being the most important, and 5 the least important), ranked the order of specific cultural factors affecting knowledge sharing: Dedication of time to knowledge management processes, openness within the organization, organizational structure and output- or employee orientation. The results showed a unanimous understanding among the executives on the most important factor for knowledge sharing being openness within the organization. This factor was ranked as number 1 by all of the executives in the study, consequently with an average score of 1.0. The results of the other factors demonstrated narrower separation with employee orientation at 2.83, organizational structure at 3.5, dedication of time at 3.67 and output orientation at 4.0. This is interesting as Mueller (2014) found employee orientation to have a slight negative effect on knowledge sharing, whereas all the other four factors were seen to have positive effects on knowledge sharing (Mueller, 2014). Given the narrow separation between the final three factors and the rank variation between participants - even when working within the same organization, far-reaching conclusions based on these results may be unreliable, and are therefore not further discussed. However, openness within the organization was a reoccurring theme during the interviews, and considered imperative in order to create a knowledge sharing culture. This

included the promotion of flat organizational hierarchies as a means to minimize the gap between senior management and the employees on the line. However, an ambiguity in the senior executives' personal involvement in knowledge sharing processes could be observed:

[...Sharing needs to be spontaneous – managerial interventions will not produce it...]

Respondent 10

This can be compared with a discussion at a later stage on possible disinclination among employees of sharing knowledge within the organization:

[... If it happens it requires hands-on leadership - you need to clarify the expectations...]

Respondent 10

When asking about the senior executives' personal impact on the knowledge sharing culture, the responses largely followed the same patterns. Initially most of the senior executives expressed the notion of a significant personal impact on company culture:

(...In the position I'm in, I have a huge influence on the culture...)

Respondent 5

[...What I do rubs off on the whole organization...]

Respondent 11

[...The higher up in the organization you get - the more (cultural) impact you have...]

Respondent 9

When asked to elaborate on this matter, the cultural roles of the executives were primarily expressed in the form of role-models.

[...They (the employees) do what I do...you've got to live as you learn...]

Respondent 3

After further reasoning, most of the executives expressed a softer approach, where they recognized the importance of the people in the organization to constitute and form the knowledge culture.

[...I used to be a culture bearer, now I need to take a step back...]

Respondent 4

[...As a senior executive you're more visible... but you can't create, rather shape culture...]

Respondent 6

However, a good senior executive behavior was not considered a guarantee for a successful knowledge sharing culture. Continuing the discussion on the executives' cultural impact on the organization, they expressed the importance of not constituting a bad example, as well as providing a good example:

[...If someone comes to me with an article or information and I don't read it...or if I have certain expertise and don't share it - why would they...?]

Respondent 1

(... We have certain core values... but we can't preach them and then do something else ourselves...)

Respondent 3

Acting responsibly in accordance with official and unofficial cultural values was expressed as a way to promote trust among the employees, and several of the executives addressed the importance of trust as a means to facilitate knowledge sharing.

[...Knowing and trusting your colleagues and managers help you share...]

Respondent 8

This can be related back to the perceived importance of physical meetings as a possibility to create trust through social interaction, and provide an arena to share knowledge. However company globalization with increasingly dispersed operations and personnel provided challenges within this area. These cultural challenges associated with dispersed leadership were visible in both the service- and R&D segments, as all the companies conducted business internationally and had geographically dispersed offices. The problem could be somewhat mitigated by gathering employees on a regular basis, and the social interaction associated with the physical meetings was considered important in promoting a knowledge sharing culture.

[...We bring everybody in at least twice a year...If you can connect a face to the person you're working with it's much easier to share knowledge with that person...]

Respondent 3

However, this became a specific cultural problem in companies within the service segment as consultants or other expertise personnel on loan might spend a majority of their time within another company culture. This could potentially result in the employees becoming more at home in the customer's organization, and over time this could affect the knowledge sharing culture within the own organization. This cultural problem was summarized by one of the executives:

[...We want it to be a creative playground for sharing ideas...otherwise the company spirit is lost... if they're gone for three years (the employees)...there's a risk we become a place where they just pick up the pay-check...]

Respondent 4

As a consequence, senior management encouraged employees to share their experiences of working in different companies as a means to share both actual knowledge, but also to promote the specific knowledge culture within the own organization by emphasizing the employees' connection to it. Another method of countering this cultural problem was displayed by one company that deliberately frequently rotated personnel between internal and external work tasks, in order to induce a stronger affiliation to the company and a sense of belonging.

However, following the HR-strategy reasoning of human capital as a company resource, the upsides of sending employees to train outside of the company at the "expense" of the customer may from a financial perspective be considered to outweigh the possible negative cultural consequences. These training methods involved offering a role in a customer's company to an employee, where the individual may not fully meet the customer's requirements but the role was seen as attractive and challenging for the individual. Promoting this to the customers, the company offered a discount to the customers when accepting support from personnel that were not fully qualified, but still deemed skilled enough to perform the duties.

[...It's a Win-Win situation...they get the job done at a good price and we get our people to grow...]

Respondent 4

This type of conscious decision from senior management could be viewed both from a knowledge management-strategy perspective (individual development of skills and increased knowledge), and HR-strategy perspective (increased individual motivation and likelihood of employee retention). In this sense, protecting the cultural values of knowledge sharing within the company and the individual's sense of belonging to the organization might in certain circumstances collide with the economic interests of the company.

The perceived value of certain specific knowledge and the importance of sharing this particular knowledge could be observed within the companies that were associated with the R&D segment of knowledge intense businesses, where physical products were produced. In both the studied R&D companies the sales departments played a central role in the company, which was considered natural as these departments generated the majority of the financial revenues. Consequently, sharing knowledge on issues related to sales operations was seen as culturally important and was in one of the companies explicitly promoted by senior management for career advancement:

[...It's kind of how it works around here...Sales is a breeding ground for higher positions...a lot of the senior managers have come through sales...]

Respondent 12

This could be viewed as an example where the implementation of a knowledge management activity (increasing knowledge on the “core competence” of sales) align with the HR-strategy (individual career advancement) while also promoting a knowledge sharing culture (knowledge sharing is important and rewarded), which in turn supports the original knowledge management activity. Referring back to figure 1 on page 46, this illustrates how senior executive leadership and their choice of knowledge management incentives have an influence on the interconnected areas of knowledge management strategy, HR-strategy and the knowledge sharing culture within an organization.

4.5 Senior executive leadership

The leadership work associated with knowledge management processes and activities that the senior executives engaged in, consisted of both deliberate actions, which could be described more as management, and indirect activities aimed and influencing the meanings and understandings of their

employees. One example of this dualism is the senior executive leadership work within the HR- domain, which was mainly concerned with managerial duties such as talent management - and performance reviews. These activities were part of the formalized requirements of the senior executives and an official part of the job description, and as such fall under the management category. In addition to this they also however involved leadership efforts, as the performance reviews were recognized to induce individual motivation through the perceived possibility of affecting one's own career path. The talent reviews indirectly also functioned as a knowledge inventory of the companies' personnel, where senior executives were able to identify potential knowledge gaps and future knowledge needs of the organization, thereby also functioning as a knowledge management activity. However, as discussed in previous sections, implemented actions were rarely part of an articulated knowledge management strategy within the company, and subsequently knowledge management activities and processes rather emerged as parts of- or outcomes of other strategic work. As one exception, the use of intranets to increase knowledge accessibility within the organization was utilized by all companies. However, the use of intranets as knowledge sharing platforms may also bring leadership challenges through the inherent tension between managerial intervention and knowledge sharing:

In one of the companies the creation of a digital forum on the intranet to promote knowledge sharing among the employees was a direct initiative from one of the senior executives. This was used to help employees get access to specific knowledge that was required for their work by posting questions or asking for advice by other members of the company, using the forum as an arena for knowledge sharing. The forum was from the senior executive perspective seen as an informal means to increase effectiveness through spontaneous sharing of knowledge. When asked about the executive's own involvement on the forum and the possible reluctance of

participation from employees in solving the problems and answering the questions posted on the forum, the executive emphasized the informality and voluntarism associated with the forum.

[...If nothing happens I might post a “nudge”, saying: Hey, it would be great if somebody could pick this up...but it never happened that I needed to tell someone to do something...]

Respondent 4

This relates to the challenges of leadership in knowledge management and senior management involvement in internal IT-based sharing communities, where an insecurity of senior management interpretations and use of information posted in these communities may result in a reluctance of sharing knowledge (Hislop, 2009). The implications for senior management in these activities, is the necessity for prudent decisions and careful applications of top-down or bottom-up approaches to knowledge management incentives, in order to overcome existing knowledge barriers. The creation of a group sharing platform and subsequent involvement by top management can therefore serve as an example of the fine line senior executives may need to balance between managerial interventions and permissive leadership, when implementing knowledge management incentives in order to facilitate and promote a knowledge sharing culture.

When given the opportunity to elaborate freely on their own leadership characteristics and their leadership work within their organizations, the senior executives initially expressed visionary and inspirational ambitions.

[...I want to inspire my employees...create an open culture where people dare to speak their minds...]

Respondent 7

[...I'm a visionary...and I want them (the employees) to share that vision with me...]

Respondent 5

[...For me it's all about employee motivation... On these (leadership) tests, I'm off the charts on motivation skills...]

Respondent 12

Ranking their own leadership characteristics from descriptions of the 5P-model (Alvesson et. al.,2017), using a ranking order of 1-5 (1 being the most similar, and 5 the least), the results from the senior executives in the study showed “the prophet” leadership variety receiving the lowest average score of 2.2. This corresponds with the overall reasoning on leadership qualities expressed by the senior executives in the questionnaire and during their initial free elaborations, since inspiring and motivating followers are an essential part of the description of “the prophet”, together with the importance of creating a shared meaning towards a common goal. Furthermore it may be considered not to be surprising, as these are arguably seen as traditional characteristics of leaders in senior executive positions. Although there are several benefits of the “prophet” leader variety such as the advantages of a common vision to facilitate quick decision-making and improved work performance and satisfaction among employees when applied successfully (Alvesson et. al., 2017), there are also potential negative consequences of applying this type of leadership. Alvesson et. al. (2017) recognize the “prophet” as possibly fostering dependency relationships where the leader is elevated and distant with “superior” insights. The ambitions of a common vision may create “group” thinking and counter diversity, aligning ideas and creating an organizational homogeneity that counters renewal and development (Alvesson et. al., 2017). Utilizing a “prophet” leadership may subsequently not support the development of a knowledge sharing culture, as this is may be more dependent on overcoming knowledge barriers by facilitating trust between employees and management (Newell et.al. 2007), involving employees in decision making (Kim & Mauborgne, 1998) and understanding the knowledge barriers from an employee point of view (Ahmed et. al, 2007). The potential limitations of the

“prophet” leadership variety is supported by the results from the structured question on the most desirable leadership characteristics to facilitate an effective use of knowledge within the organizations, using the same ranking system, where the senior executives considered the “prophet”, together with the “psychotherapist” to be the least desirable leadership varieties with an equal average score of 3.9.

The leadership variety the executives felt least associated with in their current leadership work was “the pedagogue” which received an average score of 3.8, with only one of the respondents ranking it as number 2 or better. Elaborating on why this variety was not representative for the individuals, typical answers were that this variety was not particularly associated with the senior executives’ roles in the companies. A scarcity of coaching leadership on top management level could potentially counter the applied HR-practices of mentoring as practice which was utilized by the companies. It can also be seen to counter the emergent knowledge management personalization strategy largely utilized by the companies (Hansen et. al, 1999), where training by mentoring plays an important role. Furthermore, when asked to identify the most desirable leadership variety on senior executive level to facilitate an effective use of knowledge within the organizations, the “pedagogue” was ranked as the clearly most desirable leadership variety, receiving an average score of 1.5 with all participants ranking it as number 1 or 2.

This is interesting, since when asked on what leadership qualities they as individuals would need to develop the most in order to facilitate an effective use of knowledge within their companies, during another part of the interview, none of the senior executives mentioned coaching or mentoring leadership abilities - which are arguably the abilities mostly associated with “the pedagogue”. On an individual level this could be seen as not being important for personal reasons or that the coaching leadership did not have a

perceived important relation to their position in the company. However, from a pattern perspective this suggests that the importance of coaching/mentoring leadership and its' potential impact on knowledge management processes and activities, are generally overlooked.

When investigating the senior executives' involvement in knowledge management processes and activities from a leadership perspective, they expressed a somewhat different viewpoint than when describing their leadership work from a more general perspective.

[...It (leadership) is about getting people to run with their own ideas...]

Respondent 8

[...If they come to me with a specific problem, I try to be there for them...]

Respondent 4

[...A lot of it (leadership) has to do with supporting them (the employees) so they can solve the situation themselves...]

Respondent 9

[...I try to lead with empathy and emotion...]

Respondent 3

The described empowering perspective where the senior executives support the employees is closest to that of the “preacher”, as this is associated with helping and encouraging employees to accept responsibility, and the development of their abilities in problem-solving and self-leadership (Alvesson et.al., 2017). This perspective is also mirrored in the quantitative results where the “preacher” ranked as number 2 both in the description of the executives' personal leadership characteristics (with an average score of 2.4), as well as in the most desirable characteristics for utilization of knowledge (with an average score of 2.7).

This importance of the “preacher” variety of leadership, correspond with the senior executives’ leadership work associated with encouraging a knowledge sharing culture within the companies. As described in section 4.1.3., the cultural leadership work was highly concerned with promoting trust among employees through role-modelling in order to facilitate knowledge sharing. The perceived importance of openness within the organization, as the most crucial factor in creating a knowledge sharing culture, is closely associated with honesty and the acceptance of dissent – which both are central characteristics of the “preacher”. In this light the senior executives could be seen to utilize “preaching” leadership to influence the meanings and understandings of their employees in order to shape a knowledge sharing culture. By supporting and helping their employees with upcoming problems and challenges related to knowledge management issues, the senior executives adopted the role of knowledge facilitators and learning enablers.

5 Conclusion

This study has illustrated how senior executive leadership has an influence on the interconnected areas of knowledge management strategy, HR-strategy and the knowledge sharing culture within knowledge intense firms. The lack of an articulated knowledge management strategy has previously been observed in small and medium sized firms in initial operating phases (Meroño-Cerdan et.al. 2007). However, this study also suggests the presence of strategic knowledge management short comings on a senior level in established medium and large sized firms. The knowledge management processes and activities implemented by senior executives in these firms primarily occurred operationally in common practice, and not based on a central knowledge management strategy. Despite knowledge being perceived as a key to the success of the companies, the absence of considering knowledge as a variable on a strategic level induced difficulties of articulating the relation between-, and subsequently aligning the knowledge management activities with the HR-strategy of the companies. This resulted in a partial alignment where not all parts of the HR-implications were addressed. Possible negative consequences of an unconsciously adopted emergent strategy, compared to a deliberate strategy, is the risk of purely becoming reactive and responsive, rather than proactive with conscious decision making regarding how to manage knowledge within the companies. The possible negative consequences of a partially aligned HR-strategy include the risk of unintentional knowledge loss and negative impacts on a knowledge sharing culture due to an insufficient implementation of incentives and rewards to promote knowledge sharing within the companies. However, determining actual outcomes of an implemented central knowledge management strategy requires more comprehensive studies prior and after its' implementation.

The senior executives did not recognize a need to develop personal coaching or mentoring leadership skills, even though these were singled out as the most important leadership characteristic to facilitate an effective use of knowledge within the organizations. A scarcity of coaching leadership on top management level could potentially counter the applied HR-practices of mentoring as practice which was utilized by the companies and this study suggests that the coaching/mentoring leadership's potential impact on knowledge management processes and activities is generally overlooked. A claim of a definite connection between coaching/mentoring leadership and improved knowledge management implementation requires a larger study population where significant population sizes of all the five varieties are observed. Furthermore, this also requires the involvement of subordinates to facilitate the observation of actual behavior and outcomes to make such a claim. However this study suggests such a connection and may therefore serve as an incentive for further and more extensive research on this topic.

The senior executives' leadership involvement in knowledge management processes, and the creation of a knowledge sharing culture, was mainly concerned with empowering employees and promoting trust through role-modelling. By influencing the meanings and understandings of their employees through help and support; the senior executives adopted the role of learning enablers, rather than strategy makers.

5.1 Theoretical implications

The empirical findings and analysis related to the lack of a centrally articulated knowledge management strategy within knowledge intense firms consequently raise new questions of to what extent the implementation of such a strategy could affect company performance. Furthermore, the findings suggest that the use of a more comprehensive model of leadership may be beneficial to knowledge management research, as leadership variations in the empirical findings within this study would not have been observable using

transformational leadership as the model for analysis. The perceived importance of coaching/mentoring leadership on a senior management level to effectively utilize knowledge within the organizations, raise questions on how it could be implemented and its' effects on knowledge management operations and outcomes.

5.2 Practical implications

The practical implications for senior executives in knowledge intense firms from the results of this study includes to:

- Consider viewing knowledge as a variable on the strategic level of the company, and creating a specific KM strategy, in order to facilitate alignment with HR- and the overall business strategy
- Consider implementing an increased leadership variety within the top management teams, and to evaluate and promote coaching leadership abilities when training, or recruiting senior executives for key knowledge management positions on a senior level.
- Consider implementing knowledge sharing as part of the award- and appraisal system in order to promote openness and a knowledge sharing culture within the company.

5.3 Suggestions for further research

The conclusions from this study suggest the following topics as possible continuations in future research:

- To investigate the implementation of a central knowledge management strategy in medium and large knowledge intense firms, and its' effect on knowledge management operations and outcomes.
- To investigate the implementation of coaching/mentoring leadership on a senior executive level, and its' effect on knowledge management operations and outcomes.

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Appendix 1: Questionnaire

1. What are the most important leadership characteristics for you as a senior executive to facilitate an effective use of knowledge within your organization?
2. What are the most important actions/activities for you as a senior executive to facilitate an effective use of knowledge within your organization?
3. What are the most important cultural and organizational factors to facilitate an effective use of knowledge within your organization?
4. What are the main obstacles for an effective use of knowledge within your organization?
5. What are the main improvements that you as a leader could make to facilitate an effective use of knowledge within your organization?
6. How important is an effective use of knowledge within your organization?
Rate 0-10 (0=not important at all --- 10=most important of all)
7. How well defined is the company's knowledge management strategy?
Rate 0-10 (0=not defined ---10=very well defined)
8. How integrated is the company's knowledge management strategy in the overall business strategy?
Rate 0-10 (0=not integrated --- 10=very well integrated)
9. The knowledge focus in my company concern? (State in %)
 - a. Knowledge recruitment
 - b. Knowledge retention
 - c. Other (state)
 - d. Other (state)
10. The knowledge management activities in my company concern?
(State in %)
 - a. Documenting & sharing knowledge through IT-system
 - b. Social sharing of knowledge between people
 - c. Other (state)
 - d. Other (state)