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Master Thesis

Managerial Action and Behaviors that are Supportive for Knowledge Sharing by Employees

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Abstract

With a changing global environment, there is an increased need for organizations to be able to efficiently and effectively share and use knowledge resources that exists within the firm, to achieve and sustain a competitive advantage. Digitalization is no longer a matter of choice, but rather a necessity for success. How to manage and facilitate knowledge sharing in organizations is becoming increasingly important to achieve organizational goals.

In our study we look at knowledge sharing, and what actions and behaviors managers can engage in to facilitate for knowledge sharing, such as encouraging willingness to share (e.g. voluntarism, openness to experience and innovation), leadership commitment (e.g. leaders' actions as symbols and rewarding of desired behavior) and trust (e.g. leader facilitating both explicit and tacit knowledge, creating trusting environment and acting as a role model).

This research was conducted using a qualitative approach. Our sample consists of 12 in depth semi- structured interviews, with 12 respondents from the technology department of Telia Norway, more specifically employees from the two divisions; Telia Next and Product and IT.

Despite a seemingly different nature in the two departments, we found support for the majority of our propositions in both departments, though some of the findings were inconclusive or not supported in Product and IT.

From our study, we have found that the manager's ability to create willingness to share, trust and being committed to knowledge sharing indeed increases the employees perceived support for knowledge sharing. We see that certain actions and behaviors are important for the manager to engage in, such as what type of leadership role they engage in, creating willingness to share, fostering good interpersonal relationships, establishing trust, being a role model, being innovative, openness to new ways of working and being committed to demonstrating and implementing knowledge sharing efforts.

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1   Introduction

The traditional business world as we once knew is changing. The organizations ability to understand the antecedents and consequences of digitalization provides an opportunity for information system research (Tilson et al., 2010 p.748). The European economy has in the three last decades' experienced two main changes in the economic environment; communication technology (ICT) and globalization. The economy as of today is called various things such as '*network economy*' and '*knowledge economy*' (Schwarts, Kelly & Boyer, 1999). With the increased access to information and changing environment, it is now more than ever, important to manage this knowledge, and exploit the knowledge-based resources that already exist within the organizations to increase and sustain a competitive advantage. It is also common for organizations to instigate collaboration across the organization and with other organizations, where sharing and gaining knowledge is key.

Several studies have found different predictors that may facilitate for knowledge sharing, such as having a trusting and trustworthy work environment (Cameron 2002; Goh, 2002; Sveiby & Simons, 2002), top management commitment (Hislop, 2003; Mrinalini & Nath, 2000; Rowley, 2002), focus on innovation and learning culture (Goh, 2002) and willingness to voluntary share knowledge (Dixon, 2002) among others.

Denning (2006) argues that a fundamental problem faced by many organizations is that a lot of employees lack the desire to share their knowledge with the other participants in the organizations. Connelly and Kelloway (2003) looked more specifically at how employees perceived the supervisor's and coworker's support and encouragement of knowledge sharing, and found that the management's support for knowledge sharing is found to be positively associated with the employees' perception of a knowledge sharing culture and to the willingness to share knowledge.

1.1   *Research question*

How does different managerial behaviors and action affect the employee's perceived support for knowledge sharing?

In our study we will want to add on to the existing research and look at what kind of managerial behavior and actions that affect and facilitate the employees perceived support for knowledge sharing. Our study will look at actions and behaviors managers can do to facilitate for knowledge sharing such as encouraging willingness to share (e.g. voluntarism, openness to experience and innovation), leadership commitment (e.g. leaders actions as symbols and rewarding of desired behavior) and trust (e.g. leader facilitating both explicit and tacit knowledge, creating trusting environment and acting as a role model).

1. 2 *About Telia*

Telia Norway is a part of the widespread Telia Company, which is a telecom company with its roots in Sweden and Finland (Telia, 2017). Now they stand firmly in all the Nordic and Baltic countries. Their vision is to be the next generation telecom. With over 21 000 employees worldwide and a yearly gross revenue (EBITDA) that measured almost 26 billion Swedish kroner, the company has obtained a substantial market share within the telecom industry (Telia, 2017).

In Norway, Telia, together with Telenor are the main players in the market for mobile services. With their 1200 employees and headquarter in Oslo, the company wants to bring the world closer on the costumers' terms. In this study we are collaborating with the technology department within Telia Norway, more specifically the two divisions *Telia Next* and *Product & IT*.

2 Knowledge Sharing

Knowledge is one of the corner stones of human existence, allowing us to define, shape and learn how to solve a task or problem (von Krogh et al., 2000). As with the importance of knowledge as an organizational resource to gain competitive advantage, it is just as important to be able and willing to share it with others. Organizations who are good at facilitating for different types of knowledge (e.g. tacit and explicit), are often more able to adapt to changing environments and create a good knowledge sharing climate in the organization.

2.1 *Knowledge*

Knowledge is considered a critical organizational resource that provides a sustainable competitive advantage in our competitive and dynamic economy

(Wang & Noe, 2010). According to Davenport and Prusak (1998) knowledge can be described as a *"...mix of framed experiences, values and conceptual information, providing us with the necessary framework for evaluating and incorporating new information"*. Where Nonaka and Takeuchi (1995) describe it as a dynamic human process where a flow of messages interacting with others' beliefs and ideas. Looking at knowledge as something that is processed by individuals ranging from ideas, facts to judgments relevant for individual, team and organizational performance (Alavi & Leidner, 2001; Bartol & Srivastava, 2002).

2.1.1 The concept of knowledge sharing

Knowledge sharing is becoming increasingly important to organizational success due to the highly competitive nature in the global environment (Grant, 1996). The success of organizations relies in many ways on its ability to create and share this knowledge effectively (Abrams et al., 2003). Knowledge sharing refers to the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures (Wang & Noe, 2010).

Knowledge sharing is premised on the theories regarding social exchange and social capital. Social exchange theory is based on the premise that knowledge sharing occurs *"...due to reciprocation of favors received such as job security, status, balance of power and maintenance of future relationships"* (Casimir et al., 2012). This theory is used to help explain employee's potential organizational citizen ship behavior (e.g. behaviors above what is formally required), which is something that can affect their knowledge sharing intention. Social capital theory explains that the sharing of knowledge occurs due to provision of social benefits (e.g. enhanced reputation), for not only the recipient, but also the organization (Nahapiet & Ghosal, 1998).

In the process where knowledge is shared between individuals, knowledge must be presented in a form that others can understand, learn from and make use of. Therefore, according to Ipe (2003), knowledge sharing is basically the act of making knowledge available to others. This sharing-process involves some form of conscious action on the part of the individual processing the knowledge.

Davenport (1997) also defines knowledge sharing as a voluntary act because individuals have a tendency to share their knowledge even when there is no compulsion to do. There is some disagreement however between researchers on how we should understand and view the knowledge sharing process. Some researchers, such as Yi (2009) looks at the process from a unidirectional perspective, claiming that the sharing of knowledge only goes in a single perspective (e.g. from provider to recipient). Whereas Linyange et al. (2009) and Hooff and de Ridder (2004) on the other hand view knowledge sharing from a bidirectional perspective, arguing that the sharing process involved a mutual exchange of knowledge between individuals.

2.1.2 Distinctions

The terms *knowledge* and *information* are often used interchangeably and researchers have not reached a consensus on the distinctions (Wang & Noe, 2010). Knowledge sharing is different from information sharing, which can typically involve management making information available to employees in the organization, while knowledge sharing contains a level of reciprocity (Connelly & Kelloway, 2003). In this paper we will join several researchers (e.g. Machlup, 1989; Kogut & Zander 1995) that argue that information is in fact a form of knowledge, but that knowledge is more than just information. That knowledge may include information and know-how (Wang & Noe, 2010).

Also the term knowledge exchange has been used interchangeably with knowledge sharing, but we will in this paper follow the idea that knowledge exchange includes both knowledge sharing (e.g. employees providing knowledge to others) and knowledge seeking (e.g. employees searching for knowledge from others) (Wang & Noe, 2010).

2.2 Different types of knowledge: Tacit and explicit knowledge

Knowledge in organizations can be seen both as explicit and tacit (Nonaka, 1994). Polanyi (1966) defined *explicit* knowledge as the type of knowledge that we can easily "*… express, capture, store and reuse"*. He saw explicit knowledge as something systematic, universal and transparent. This is the type of knowledge we can describe to others through language and established processes (Smith, 2001). It is something that can be easily codified, stored, and transferred across both time

and space, independent of any individuals. Explicit knowledge is considered an asset because it can be reused a number of times by different individuals, to solve problems and challenges (Hansen et al., 1999). A large number of organizations spend a lot of money on how to code and store relevant explicit knowledge.

But it is not all knowledge we can articulate or store. Polanyi (1966) argues further that knowledge which we are not formally taught, and we cannot express in words is *tacit* knowledge, which is based on the idea that humans know more than we can tell. Nonanka (1991) defined tacit knowledge as something highly personal and deeply ingrained in people's individual experiences, ideas and emotions. He also believed that tacit knowledge is something that we individually acquire through actions and experiences (Nonaka, 1994). Nonaka and Takeuchi (1995) argue that knowledge is either tacit or explicit. Both tacit and explicit knowledge are essential for creation of knowledge in an organization, and one should ideally strive to have a balance between the two different types of knowledge (Nonaka, Toyama & Konno, 2000). They base this on the idea that explicit and tacit knowledge interacts through knowledge conversion and represents two ends of a continuum (Nonaka, 1994; Nonaka & Takeuchi, 1995). This implying that the creation of knowledge in an organization is dependent on making tacit knowledge, explicit. But the explicit knowledge would be quite meaningless without the insights from tacit knowledge (Nonaka, Toyama & Konno, 2000). This is in contrast to Tsoukas (2011), who believes that all explicit knowledge is underlying by some form of tacit knowledge.

Explicit knowledge can more easily be expressed, shared and communicated through written form, making it easier to access, especially in communication in digital channels within the organization. Tacit knowledge on the other hand can be more time-consuming and costly to make shareable (Dhanaraj et al., 2004). Ithis type of knowledge can also be considered more valuable for the employee, and therefore the willingness to share it is dependent on other factors. But this will also imply that that tacit knowledge can be highly valuable for the organization if shared.

In this paper we will focus on both types of knowledge, following Brown and Dugid's (2000) mind of thinking, where they argue that the most successful

organizations are still going to be the ones that manage to find the right balance between the natural tension that exist between explicit and tacit knowledge. By understanding that knowledge can be differ, and that not all knowledge can be taught through courses, manuals and other similar approaches, we can realize the need and adapt to other solutions to create a good knowledge sharing environment in the organization.

3 Knowledge management and managerial behaviors

Knowledge is considered to be the most important asset that an organization has (Drucker, 1985) and the most significant economic resource. Due to this, efforts are being made to be able to determine how the organization can acquire it, represent it, retain it and manage it. In this study we are looking at what kind of managerial actions and behaviors that can be perceived as being supportive of knowledge sharing by the employees in an organization. This implying that the managers' role is important and can influence how effective the knowledge sharing climate is within the organization.

3.1 Knowledge management

Knowledge sharing has been considered the most important part of knowledge management. The ultimate goal of sharing employees' knowledge is its transfer to organizational assets and resources (Dawson, 2001).

Knowledge management is conceptualized as the process of capturing, distributing, and effectively using knowledge (Davenport, 1994). Though, there is no one definition that fits all. Knowledge management is also seen as a strategy to be cultivated in a firm, ensuring that knowledge will reach to the correct people at the appropriate time and that they will disseminate and use the information to enhance the overall function of the organization (O'Dell and Grayson, 1998). Bounfour (2003) and Dow and Pallascke (2010) found that knowledge management constitute of the basis of companies' capabilities construction, underlying the performance of organizational and management processes. Even though there are some variations in the descriptions and definitions of knowledge management, a consensus seems to be that knowledge management is a set of processes that allow the use of knowledge as a main determinant to add and generate value for the firm (Bueno and Ordonez, 2004). Knowledge sharing is a

critical step in knowledge management, due to enabling organizations to leverage their most valuable asset of employees sharing their knowledge with others (Wasko and Faraj, 2005).

Due to the potential benefits of knowledge sharing, many organizations have invested time and resources into knowledge management including knowledge management systems that use state of the art technology to facilitate the collection, storage, and distribution of knowledge (Wang and Noe, 2010). But a lot of the systems available, which is supposed to facilitate for knowledge sharing, is actually not. Carter and Scarbrough (2001) found that an important reason for the failure of knowledge management systems is the lack of consideration of how the organizational and interpersonal context works, as well as how individual characteristics may influence knowledge sharing.

3.2 *Managerial Behaviors*

How the leader behaves can affect how knowledge is managed in the organization. Different leadership styles and managerial behaviors can either help or weaken the organizational climate and willingness for knowledge sharing among different hierarchical levels. Burns (1978) distinguishes between transactional and transformational leadership.

3.2.1 *Transactional leadership*

Transactional leaders motivate through different types of exchange, such as reward systems (Yang, 2006). This view of leadership has an emphasis on organizations being led from the top. Jay Cogner (Beer et al., 2000) assumes that the top-led approach is not led only by the CEO, but also the team of senior executives. In addition, the members of the executive team are talented and sensitive to the changes unfolding in the world around them. This top-led view does not exclude the participation by the levels below.

3.2.2 *Transformational leadership*

Transformational leaders are paying great attention to being interactive with followers to create organizational collectivity. They want to understand the needs of people in the organization and aims to stimulate their followers to achieve organizational goals (Yang, 2006). In contrast to transactional leaders, this type of leadership is more flexible in their approach. This view of leadership has an

emphasis on organizations being led by leaders having high participation and high involvement with the employees.

Warren Bennis (Beer et al., 2000) argues that organizations are becoming more complex, technologically sophisticated and knowledge intensive. Ron Heifetz (Beer et al., 2000) asserts that with relatively simple and technical problems, leadership is relatively easy and top-down leadership can solve these kinds of clear-cut problems. However, with more complex and adaptive problems, many stakeholders must be involved and mobilized.

3.2.3   Leadership style and knowledge sharing

Most research on leadership style as a predictor for knowledge sharing has focused on transformational leadership, because transformational leadership is expected to be a factor that can lead to higher knowledge sharing levels in organizations (Wang and Noe, 2010). It has been reported a direct and positive relationship between transformational leadership and knowledge sharing at the individual level (Chen and Barnes, 2006; Garcia-Morales et al., 2007). Li et al. (2014) found that transformational leadership was positively related to knowledge sharing in addition to the individual level. According to Podsakoff et al. (1990), transformational leadership is comprised of six leader behaviors: Articulation a vision, providing an example, providing an appropriate model, accepting group goals, having high performance expectations, and providing intellectual stimulation.

Quinn and McGrath (1985) describe eight leadership roles that are expected to support knowledge sharing on different degrees. This framework argue that leaders in an organization can play the roles of *monitor* (e.g. govern subordinated in accordance with organizational rules), *coordinator* (e.g. simplify routines and build up a good relationship with subordinates), *director* (e.g. clarify goals roles and future directions through plans, structures, instructions and practical solutions), *producer* (e.g. emphasize employee productivity and achievement through goals and assignments) *innovator* (e.g. absorb information and knowledge collected from the external environment), *broker* (e.g. focus on retention of external legitimacy and collection of external resources), *facilitator* (e.g. emphasize group harmony, consensus in interpersonal relationships and

involvement of subordinates) and *mentor* (e.g. assist subordinates with empathy and consideration to develop job-related competencies) (Yang, 2006).These eight types of roles are either more transactional or transformational in their nature.

Proposition 1: *Innovator, facilitator and mentor roles contribute positively to perceived support for knowledge sharing by employees.*

4   How can managers facilitate knowledge sharing?

Knowledge sharing is something that needs to be facilitated for, and certain characteristics of knowledge sharing is important to understand in order to be able to utilize the resources within the firm. There are of course a lot of different factors that are important in regards of knowledge sharing. Due to scope of this paper, we will focus on different managerial behaviors and actions that can encourage and foster knowledge sharing in organizations.

4.1   Create willingness to share

4.1.1   Voluntarism

To have a good climate for knowledge sharing, one must have the element of voluntarism. This is based on the idea that the individuals in the organization share their knowledge, even when they are not demanded to do so. Reychav and Weibsberg (2009) demonstrated that people, who are willing to share their tacit knowledge to others, are more likely to share their explicit knowledge also. By encouraging people to share, one can create a more sharing- climate within the organization. This is important, because it is not ideal if employees *only* share their explicit, more formal knowledge, with each other. Therefore one may argue that there will be a difference if we share knowledge as part of the job, or if we share knowledge more based on it being a voluntary act. When being able to motivate for more voluntary acts of knowledge sharing, the threshold for the more personal –natured tacit knowledge may become higher, due to more willingness to share. By breaching this threshold, one can make employees more willing to share their knowledge and expertise.

Proposition 2: *If the manager is able to create an environment where employees feel willing to share knowledge, they will share more tacit knowledge with each other.*

4.1.2   Openness to experience

Other factors that can contribute to the willingness to share are how open individuals in the organization, such as managers, are to new experiences. Cabrera et al. (2006) found this to be positively related to individuals self-report of knowledge exchange. This implicating that individuals who are highly open to experience have a tendency to have a higher level of curiosity and will therefore seek others' inputs. In an exchange of knowledge, this can help develop a reciprocal relationship and encouraging the employees to share, rather than to just share information in a unidirectional manner. Constant et al. (1994) found that employees who have a higher level of education and longer work experience are more likely to share their expertise to novices who needs it in the organization, as well as having more positive attitudes towards sharing. It is not only the manager's openness that is important. Gupta, Iver and Aronson (2000) argue that if organizations have a culture high on openness with incentive themes that facilitate and integrate individual competences (e.g. skills, knowledge and experience) it will be easier transform this into organizational knowledge through learning, sharing and knowledge creating.

Proposition 3: *If the manager demonstrates openness to new experiences, it will increase perceived support for knowledge sharing in the organization by the employees.*

4.1.3   Emphasize on innovation and organizational learning

Nonaka et al. (1994) found that knowledge-creating activities can result in innovation, which is the key to survival for most organizations. Organizational learning is important in this context, and Goh (1998), Garvin (1993), and Senge (1990; 1992) have identified the ability to transfer knowledge quickly and effectively from one part of the organization to others as one of the attributes. Knowledge that is just a repository of information in a database or in someone's private knowledge domain cannot be used by an organization to learn (Goh, 2002).

Goh (2002) found that it is important that there is a strong culture of continuous improvement and learning, linking this to problem seeking and problem solving. The employees should be encouraged to gather relevant information, to use and share this information, and use this knowledge in problem solving and implementation of innovative solutions (Goh, 2002).

Proposition 4*: Managers who emphasize innovation and organizational learning are perceived as demonstrating supportive behavior that facilitates knowledge sharing in the eyes of the employees.*

4.2   Leadership commitment to knowledge sharing

4.2.1   Management commitment to facilitate for knowledge sharing

Martiny (1998) found that leadership commitment to knowledge sharing is a potential predictor for knowledge use in organizations. She argues that uncertainty about leadership commitment in regards of knowledge sharing is a key challenge. But it is also a question on what kind of approach you as a leader should take when it comes to encouraging knowledge sharing among employees. In the end, the leaders approach (e.g. suggestions versus orders) is secondary to the employees when they make their final decision about whether or not to share their knowledge with others, but may have an influence because employees often want to please their superior (Davenport, 1994).

Lee et al. (2006) also found that what kind of commitment the top management displays to facilitate for knowledge sharing influenced both the level and the quality of knowledge sharing, as well as the employees' commitment to knowledge management. Kim and Lee (2006) found that knowledge sharing is facilitated by having a less centralized organizational structure, which can imply that relationships matter in regards of wanting to share knowledge or not. Creating a work environment that encourages interaction among employees (e.g. through the use of open workspace) (Jones, 2005), encouraging communication across departments and informal meeting (Liebowitz, 2003) among others, has been found to facilitate knowledge sharing, whilst organizational hierarchy, rank and seniority should be deemphasized.

4.2.2 Leaders actions and behaviors working as symbols

Whether or not the employees perceive their manager's effort in regards of encouraging knowledge sharing as supporting of knowledge sharing, are not only influenced by the actions and behavior of the leader, but also what kind of signals the management and leader wants to send to the employees. Employees look at symbols (e.g. objects, acts, relationships) and form judgments about their managers' support for knowledge sharing (Connelly & Kelloway, 2003). An example of this can be if the management spends a great amount of resources on either developing or purchasing knowledge sharing technology. In the eyes of the employees, this could work and be interpret as a symbol for both the management commitment to knowledge sharing, and also a statement about what kind of climate one wants to nurture in the organization (Connelly & Kelloway, 2003). But for this to create the ripple effect into the organization, the management and leader must be perceived as committed to implement it. Therefore, how the manager's knowledge sharing intention are perceived by the employees and interpret, may influence future knowledge sharing behavior of the recipients (Bolino, 1999; Kelley 1967). If the managers' knowledge sharing efforts and behaviors is attributed to politics or impression management motives, the employees will view this as less favorably and they are less likely to reciprocate knowledge (Casimir et al., 2012).

Proposition 5: *How committed a manager is perceived to be by the employees in demonstrating and implementing knowledge sharing effort, affects the knowledge sharing climate in the organization.*

4.2.3 Leader rewarding desired behavior

Incentives like recognition and reward are suggested as factors that can facilitate knowledge sharing and contribute as a sign of a supportive culture (Hansen, Nohria, & Tierney, 1999; Liebowitz, 2003; Nelson, Sabatier, & Nelson, 2006). There are mainly two types of rewards that are explored, extrinsic and intrinsic rewards (Sajeva, 2014). Examples of extrinsic rewards can be bonuses, commissions etc., whilst intrinsic rewards are psychological or internal rewards achieved directly from performing the task itself (Sajeva, 2014).

Kankanhalli et al. (2005) found that rewards such as bonus, higher salary and promotions were positively related to the frequency of knowledge contribution made to KMSs, especially when the employee identified with the organization. Researchers have also found that emphasize on performance-based pay systems had a positive contribution to knowledge sharing (Kim and Lee, 2006). Yao et al. (2007) found that the lack of incentives is a barrier to knowledge sharing. But not all rewards and incentives are positively related to knowledge sharing. Anticipated extrinsic rewards, for instance, has been found to have a negative effect on the attitudes toward knowledge sharing (Bock et al., 2005). Sajeva (2014) found that the intrinsic/psychological rewards like having a sense of belonging, sharing common values, sense of achievement and success, sense of competence, sense of usefulness, sense of respect and recognition, and a sense of trust were important for fostering knowledge sharing among employees. The type of reward system also has an impact on knowledge sharing. A cooperative reward system has been found to have a positive effect on sharing knowledge, where as a competitive reward system had the opposite effect (Ferrin and Dirks, 2003).

For managers, it can be vital to know what kind of actions and incentives they can instigate to encourage and create more sharing of knowledge in the organization. But as with a lot of the other predictors of knowledge sharing, other factors are also important, such as the trust dimension.

4.3   Trust as a cornerstone for knowledge sharing

In most organizations, the interpersonal relationships that exist at work are important for the level of knowledge sharing. Trust is viewed by a lot of researchers as the basis of interpersonal relationships and a precondition for knowledge sharing, and is therefore important for the companies' overall competitive advantage (Tan & Lim, 2008). For this paper we will define trust as the willingness of someone to be vulnerable to the action of others based on the expectation that the other will perform a certain action important to the trustee (Mayer, Davis & Schoorman, 1995).

4.3.1   Leader facilitating a trusting environment

One of the basic notions of trust is building upon people's willingness to be vulnerable to actions of others. This is in consensus with the idea of reciprocity,

that one holds expectations that others will do something that benefits you if you have shared or helped them. Even though interpersonal trust in organizations is something that is dependent on many different factors, managers can still promote and facilitate for interpersonal trust and create a trusting environment in the organization.

Abrahams et al (2003) found a set of consistent set of actions and behaviors that they called *trust builders*, which managers can use to promote interpersonal trust in their organization. These trustworthy behaviors range from that you as a manager should engaging in collaborative communication, act with discretion and be consistent between word and deed, to other actions such as ensure that decisions are fair and transparent and that you ensure frequent and rich communication. Other more relational factors they argue works as trust builders, is the importance of creating personal connections and to give away something of value. This is possible if you disclose your expertise, as well as your limitations (Abrahams et al., 2003). All of these different behaviors are relying on some sort of interaction among the managers and employees, where the manager have to be a part of the implication, demonstrate with own behavior and create a climate for trust in an organization. This important because according to Baker et al. (2006) individuals will still tend to share more knowledge when they see others as honest, fair and trustworthy, and by facilitating and encouraging this type of behavior, it can among other things, contribute to making knowledge exchange less costly (Abrahams et al., 2003).

Proposition 6: *Leaders who are perceived as honest, fair and trustworthy will increase the perceived support for knowledge sharing in the organization.*

4.3.2   *Facilitating for both explicit and tacit knowledge sharing*

Different levels of trust is likely to impact how knowledge is shared, regardless of knowledge types (e.g. tacit or explicit), but one can still consider how trust affects the different forms of knowledge. As mentioned previously, as a manager it is important to encourage sharing of both explicit and tacit knowledge. As explicit knowledge is considered less personal and often backed up by formal language and academia, it is often considered that trust plays a lesser role for this type of knowledge. This is contrast to tacit knowledge, which is considered more personal

and relies much more on interpersonal relationships and communication. Because tacit knowledge can not be codified or supported by any formal language or academic data, we need to trust that the other individual we share knowledge with cares about our wellbeing (e.g. benevolence trust) and also have the expertise that is needed and trust our competency (e.g. competency trust) (Abrahams et al., 2003). Therefore, tacit knowledge is more sensitive to the quality of the interpersonal relation.

Proposition 7: *If the leader fosters good interpersonal relations with employees, their perceived support for sharing tacit knowledge will increase.*

The manager can assist and encourage the employees to become conscious of their tacit knowledge and facilitate for knowledge sharing between participants to create a knowledge interflow. This will enable employees to enhance their competency and create new knowledge (Sveiby, 2001). If the manager is able to create a platform for sharing of both tacit and explicit knowledge, the social capital becomes stronger, as the ones who share their knowledge gets an opportunity to refine it, and the recipients are able to learn.

4.4   The Leader as a role model

All of the different factors above are things that could be important for a manager to be aware of if wanting to create, nurture and facilitate for increased knowledge sharing activities in the organization. What we can review from the literature is that the field of knowledge sharing is wide, with a lot of different predictors for what can influence knowledge sharing. But as we focus on what kind of activities and behaviors managers can implement, we find it important to focus on creating a willingness to share within the organization, which can be hard if you don't have interpersonal trust. The leaders might work as a symbol of their own, therefore the leaders are often perceived as role models. If the managers are early on with adaptation and implementation of the things perceived as supporting for knowledge sharing by the employees, it might increase the willingness to share. So even though knowledge is something employees can choose to share, it is important to encourage and be part of the knowledge sharing process as a manager, and facilitate the platform for sharing in the best possible way.

Preposition 8: *When the leader is perceived as being a role model, the employees engage in more knowledge sharing.*

4.5 The importance of knowledge sharing

Knowledge sharing is according to Wang & Noe (2010, p. 115) "*… the fundamental means through which employees can contribute to knowledge application, innovation, and ultimately the competitive advantage of the organization*". It is also positively related to reduction in production cost, team performance and performance (Abrams et al., 2003). By having a good knowledge sharing culture in the organization, the knowledge sharing between employees, and within and across teams, will be more effective and allow for capitalization of knowledge-based resources (Wang & Noe, 2010). Individuals that share their knowledge with each other are drivers in the knowledge-creating company (Nonaka, 1994).

In this study we are, as previously mentioned, interested in looking at what kind of actions and behavior that the employees perceive as being supportive for knowledge sharing, and view this as interesting due to knowledge about how important employees' perception about management can be necessary for the creation and maintenance of a positive knowledge sharing culture in an organization (Wang & Noe, 2010).

Therefore, following propositions were developed:

Proposition 1: *Innovator, facilitator and mentor roles contribute positively to perceived support for knowledge sharing by employees.*

Proposition 2: *If the manager is able to create an environment where employees feel willing to share knowledge, they will share more tacit knowledge with each other.*

Proposition 3: *If the manager demonstrates openness to new experiences, it will increase perceived support for knowledge sharing in the organization by the employees.*

Proposition 4: *Managers who emphasize innovation and organizational learning are perceived as demonstrating supportive behavior that facilitates knowledge sharing in the eyes of the employees.*

Proposition 5: *How committed a manager is perceived to be by the employees in demonstrating and implementing knowledge sharing effort, affects the knowledge sharing climate in the organization*

Proposition 6: *Leaders who are perceived as honest, fair and trustworthy will increase the perceived support for knowledge sharing in the organization.*

Proposition 7: *If the leader fosters good interpersonal relations with employees, their perceived support for sharing tacit knowledge will increase.*

Preposition 8: *When the leader is perceived as being a role model, the employees engage in more knowledge sharing.*

In the literature review, relevant literature within the fields knowledge sharing, knowledge management, managerial behaviors and actions and behaviors related to facilitation of knowledge sharing have been elaborated. It has led to the conceptual model that seeks to examine the relationship between managerial actions and behaviors, and the perceived support for knowledge sharing by the employees.
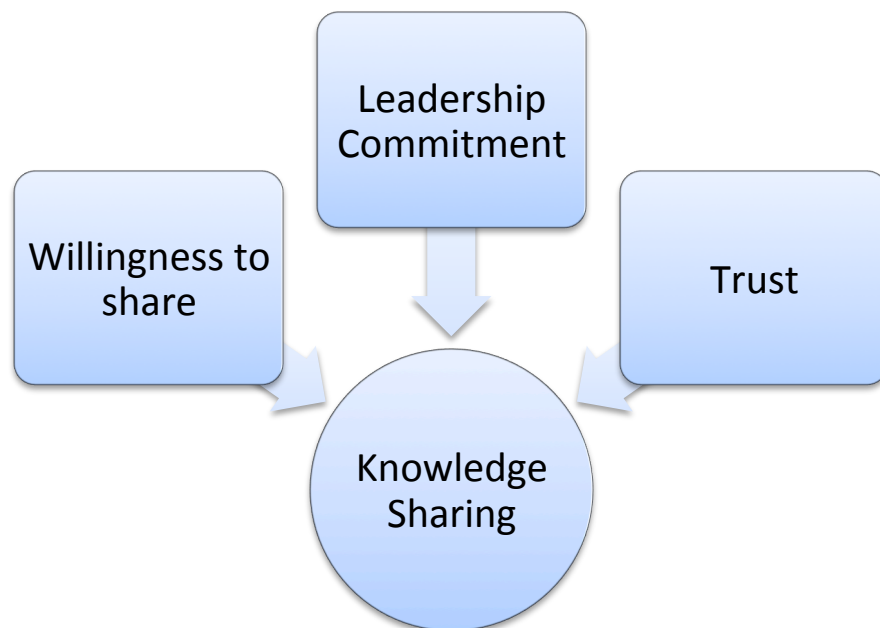
Figure 1. Conceptual model

5   Research Method

Through the literature review, we have found a possible relationship between managerial behaviors and actions, and the employees perceived support for knowledge sharing. The literature reviewed indicate that further research potentially could provide a broader understanding of what kind of impact managerial actions and behaviors have on how employees experience sharing knowledge. The established theories serve as the basis for our propositions.

5.1 Research Design

Within the organizational studies, there has been an increase of interest in the use of qualitative techniques (Benbasat et al., 1987). The nature of qualitative research is to focus on how people interpret and make sense of their social reality (Holloway, 1997 p.2). To get an in-depth understanding of our research question, an exploratory qualitative approach was considered a suitable choice of method. To test our propositions, data was drawn from in-depth interviews.

In-depth interviews are designed to obtain a deep understanding of participants' experiences, perceptions, feeling and knowledge (Patton, 2002). It involves the posing of open-ended questions and follow-up probes designed to achieve an in-depth understanding of the participant (Patton, 2002). In-depth investigative methods are suggested to be used for discovering the nuances of knowledge sharing processes and being able to identify factors that facilitate and inhibit knowledge sharing within the contexts chosen for the study (Ipe, 2003).

To move the process from general topics to more specific insights, semi-structured interviews with open ended question was chosen to ensure lengthy and descriptive answers, rather than close-ended questions (McCammon, 2017).

5.2 Sample

Our sample consists of people from the technology department of Telia Norway, more specifically employees from the two divisions; TeliaNext and Product and IT. The participants were approached through a contact person in Telia Norway. A criterion for contributing to the study was that the participant could not be part of the top management group. This criterion helped ensure that the participants were in fact subordinates with a manager to report to. This was important to be able to measure knowledge sharing from the employee's point of view and what they perceived to be supportive actions and behaviors from their closest manager. In total, we conducted interviews with twelve people, six from TeliaNext and six from Product & IT. The participants were randomly selected by our contact person in Telia Norway, and consisted of seven men and five women, with age ranging from 28 – 48 years. The participants had various backgrounds in regards of education, previous work experience and tenure. They also varied in terms of country of origin; therefore four of the interviews were conducted in English. The

majority of the participants were permanent employees, while two were consultants being in Telia Norway with duration of more than one year.

5.3 Data Gathering

After reviewing the literature, we developed questions in an interview guide (Appendix 1 and 2). All questions were grounded in our propositions or served as background variables to ensure a good measurement of the constructs to be studied and interpretation of the findings (Yin, 2003). By linking the constructs to each proposition, the interview guide helped us guide the data gathering and gave a logical linking of the data to each proposition (Yin, 2003).

As an initial phase, we conducted two pre-interviews to determine and ensure that the constructs in the interview guide were suitable and understandable for the participants in our sample. Our test interviews were conducted on two individuals with relevant background for our study. After the pre-interviews were completed, they gave us their feedback and we made the necessary changes to the interview guide as we saw fit. This included the removal of certain questions that we discovered was answered through other questions and therefore overlapped.

The main interviews were conducted in a face-to-face setting at Telia Norway's headquarter. This interaction allowed us to observe the participant in a natural setting and engage in an interactive dialogue. (Bailey 2008, p.100). All interviews were recorded by a tape recorder, enabling us to focus on having a natural conversation with the participants and ensuring that all information was captured. To have some flexibility regarding how each interview was to be conducted, we chose to do a semi-structured interview (Bailey 2008, p. 100). All interviews were conducted one by one, and lasted on average 40 minutes. All participants were given a short brief about the subject of our thesis and were also encouraged to be as honest as possible. We varied in who took on the role as the interviewer and observer. The observer took notes and helped with follow up questions when needed.

When conducting the interviews, we used our interview guide with specific questions, organized by topics, which was grounded in our propositions. But to have a natural flow during the interview, the progress and order of the questions

asked varied from participant to participant. This flexibility was helpful when the interviewees answered a question before it was asked, or we saw that another topic was suitable to address at a certain time during the interview (Bailey, 2007, p.100). When we saw the need to go more in-depth with a topic, we used not pre-planned follow up questions (Bailey 2007, p.103).

5.4   Data analysis

Due to using a recorder during the interviews, we began by transcribing the interviews to be able to easier link the information to the propositions. After this, we read the information from the interviews thoroughly and highlighted relevant information (Bryman and Bell, 2003). The next step was to organize, categorize and codify the data in a coding schema (Schutt, 2015). We organized the coding scheme by linking the data and different questions to each of the propositions. In addition, we separated the responses from Telia Next and Product & IT to look at differences and similarities in the participants' responses with regards to uncover which managerial behaviors and actions are perceived as facilitating knowledge sharing in their opinion. We also looked at connections of the data and how one concept may influence another (Schutt, 2015). We focused on exploring what managerial behaviors and actions were perceived as being facilitating knowledge sharing by the employees. We have rated the responses as being either supporting, not supporting or partially supporting the propositions. The coding schema is presented in Appendix 3. The final step was to extract the most important managerial behaviors and actions that were perceived as being facilitating knowledge sharing.

5.5   Validity and Reliability

To ensure that we actually measured what we set out to measure, (e.g. the validity of the study), our choice of method was selected with care. Although researchers often argue that qualitative methodology has high *internal* validity, because of its in-depth nature that helps give a nuanced understanding of the context and its participants, it is often a trade off with external validity (Bailey 2007, p. 181).

To improve the internal validity, we wanted our study to give an accurate representation of the setting at hand. In this study we have had several participants and made sure that the interview guide was aligned with the constructs of interest,

hence creating a chain of evidence that was, rooted in theory (Yin 2003). We defined constructs such as "Knowledge sharing" (e.g. tacit and explicit knowledge) to the participants to improve construct validity (Bailey 2007, p. 181). By coding the data during our analysis, we could look for patterns (e.g. similar responses/agreement or disagreement) in the responses, which helped to improve the internal validity. Even though we interviewed a wide range of participants with various background in Telia Norway, the sample does not allow for generalizability of the population hence, we cannot say that the participants or the results derived from this research are representative for other comparable technology departments elsewhere (Bailey 2007, p.182).

To obtain a higher level of reliability, one could use a more structured interview, but since we wanted to obtain a broader understanding, we chose to use semi-structured interviews. Due to recording all the interviews and transcribing them, we have minimized the risk of bias and errors, as well as memorizing the answers wrongly. Another effort we made to improve the reliability of the analysis was to construct the instrument in order to protocol and log all our activities in a standardized matter.

6 Findings

Based on our collected data and analysis we found several factors that might have an influence on how different managerial behaviors and actions affect the employees perceived support for knowledge sharing. In the following section we will present our findings according to the eight propositions presented earlier in the paper.

Our findings are extracted from data collected from the technology department in Telia Norway, respectively Telia Next and Product and IT. We had expected the results to differ between the two departments, due to having different focus areas (e.g. Telia Next; Innovation and new business development, Product and IT; existing products), and found that in regards of some propositions the result was coinciding, while others were not. In the case when the findings indicate coinciding results, we found it most appropriate to review the results as a whole. Whereas when the findings differed between the two departments, we reviewed them separately.

6.1 Leadership style

According to Chen and Barnes (2006) it has been reported a direct and positive relationship between transformational leadership and knowledge sharing at the individual level. From the eight leadership roles described by Quinn and McGrath (1985), we suggest in proposition 1, that if the leader takes on the role of being an *innovator* (e.g. absorb information and knowledge collected from the external environment), *facilitator* (e.g. emphasize group harmony, consensus in interpersonal relationships and involvement of subordinates) or *mentor* (e.g. assist subordinates with empathy and consideration to develop job-related competencies) (Yang, 2006), then it would contribute positively to perceived support for knowledge sharing.

Our findings suggest that if the leader takes on one or several of these roles, it is positively related to the employees in Telia's perceived support for knowledge sharing. This is supported by the majority of employees in both Telia Next and Product and IT, supporting Quinn and McGraths (1985) findings. As stated by respondents:

"I feel that my leader is keeping me in the loop, so that I have a greater understanding of the new things that is happening and the big picture…"
Employee Telia Next

"… I always feel comfortable going to my leader, whether it is in regards of business related issues or personal dilemmas. When I feel heard by my manager, I find it easier to develop, because I know he has no hidden agenda other than helping me grow, both as a colleague and as an individual."
Employee Product and IT

Hence it seems that the role that the leader engage in is related to both the nature of the interpersonal relationship between the leader and subordinate, and how devoted to their field of work the employees view the leader to be (e.g. keeping up with the latest technology).

"My manager is an acknowledged person within our field of work (e.g. product development). Knowing that my manager shares the same vision as me is important for me to be able to commit to the work we do here at Telia…"
Employee Product and IT

Since the manager can choose to engage in several aspects of all the roles, it may seem that it is highly dependent on the managers preferred leadership style. This differed between the departments according to the employees. The managers in Telia Next were described as being "agile", "innovative" and "casual", while emphasizing a flat hierarchy, focusing on friendship with more autonomy for the employees. By this, it may seem that the managers engage in not only the role of being an innovator, but also incorporate elements from the two other roles (e.g. facilitator and mentor role). Due to this evidence, we can say that proposition 1 is strongly supported in Telia Next.

Whereas in Product and IT, the employees experienced the managers as being concerned with their wellbeing at work and felt highly involved in matters regarding the organization, but in the employees' statements, it indicates that the managers are mainly focusing on job related matters. Therefore it may seem like in that department, the managers engage more in the roles of mentor and facilitator, rather than innovator, thus is still supporting proposition 1.

6.2   Willingness to share

6.2.1   Voluntarism

Having a sharing climate in the organization can be dependent on several factors, with one of them having the element of voluntarism. We suggest in proposition 2 that if the manager is able to create an environment where the employees feel willing to share their knowledge, they will share more tacit knowledge with each other.

When asking the respondents questions regarding cooperation, the level of competitiveness in Telia Norway and what kind of efforts their managers are implementing to create a sharing culture within their respectively department, we did not find conclusive evidence to fully support proposition 2, but our findings point towards that the managers efforts may have a positive impact on the willingness of the employees to share knowledge with each other in the organization. The results were similar both in Telia Next and Product and IT, we will therefore review the findings for this proposition as one.

"We are not only encouraged by our manager to share knowledge with each other, it is expected. Otherwise we can not be the 'lean machine' that we aspire to be"

Employee Telia Next

"My manager is always available (e.g. not always in person, but always online), and as soon as he receives any information, he'll forward it everyone on the team, so everyone has the same information. By him doing this for us, it encourages me to engage in sharing"

Employee Product and IT

"I feel heard and respected by my manager, and this makes me fight a little harder for my projects"

Employee at Telia Next

But the results were inconclusive in regards of *what kind of knowledge* (e.g. tacit versus explicit) that the employees felt more inclined to share, due to the managers efforts in creating a knowledge sharing climate. For the majority of the respondents, it didn't seem to matter what kind of knowledge they shared with each other, as long as the climate for sharing was good.

"... I find routines and other types of formal information easiest to share, while more complex things are harder to convey to others, such as 'know how' and other things I feel is a part of my identity and therefore take for granted"

Employee at Product and IT

Our findings indicate that as long as the respondents felt comfortable with sharing with their environment, they were likely to share both tacit and explicit knowledge. This is in accordance with Reychay and Weisbsberg (2009) view that people, who are willing to share their tacit knowledge, are more likely to share their explicit knowledge also. This is reflected in the answers of our respondents from both departments, who expressed a desire to be highly willing to share. Therefore our findings indicate partial support for proposition 2. It may seem that as long as the employees are inclined to share knowledge with each other, the managers efforts in creating a climate for sharing is not the most important influence.

6.2.2 Openness to experience

Previous research indicates that if the manager is open to new experiences, it is found to be positively related to knowledge exchange, and that this can help develop a reciprocal relationship where the employees are encouraged to share in a bi-directional way (Cabrera et al., 2006). Based on this, we suggest in proposition 3 that if the manager demonstrated openness to experience, it will increase the perceived support for knowledge sharing in the organization by the employees.

In regards of proposition 3, our findings indicate that the attitudes within the two departments differ in regards of how open they perceive their manager to be. In Telia Next, all the responses were coherent and it may appear to be a consensus in regards of the employees agreeing that their managers are highly open. This seems to have a positive influence on their perceived support for knowledge sharing. Beneath are some statements from employees in Telia Next:

"He is not only using the newest technology, but also pushing the development in ways of working."

"… everything he (e.g. the manager) does, is a result from being open. This makes the threshold for sharing my knowledge much lower."

"In Telia Next we have a saying that if you want to try something new, you are more than welcome. If you fail; fail fast, adapt and learn from it."

This implies after analyzing the responses from Telia Next, that when looking at the relationship between the perceived openness of the manager and its influence on knowledge sharing, we find support for proposition 3.

In Product and IT on the other hand, the findings were more ambiguous. The respondents differed in their view of their manager's openness. Some respondents stated that their manager was not open to new technologies, but open for new ways of working.

"If it was only in the hands of my manager, we would never implement anything new. He doesn't take any initiatives himself, only forwards efforts that comes from his closest superior."

Employee Product and IT

Whereas other stated that their manager was always open for new ideas and concerned with finding ways to simplify the work life.

"Our manager goes out of his way to make sure that initiatives started in technology becomes anchored in the department and developed further. It is not always reflected in the use new technology, but rather in ways of working. An example of this is how we enter the market with our products".

Employee Product and IT

Since the responses from the employees in Product and IT are ambiguous, the results may be inconclusive; we cannot say that we have support for proposition 3. This means that we cannot say with certainty that the manager's openness is positively influencing the perceived support for knowledge sharing by the employees in this department.

6.2.3   Innovation and organizational learning

According to Goh (2002), employees should be encouraged to gather relevant information, and with this share and use it in problem solving activities and in the implementation of innovative solutions. We suggest in proposition 4 that managers who emphasize innovation and organizational learning are perceived as demonstrating supportive behavior that facilitates knowledge sharing in the eyes of the employees.

The findings indicate that in regards of proposition 4, the two departments again differed from each other. As we already predicted, Telia Next, which is supposed to be the innovative pocket within Telia, emphasize being creative, innovative and open to new things. Therefore, the responses from the employees in this department were expected to support the proposition. After reviewing the data, the findings are in compliance with our proposition. All the respondents from Telia Next was in agreement that their managers put in a lot of effort in implementing new, innovative solutions.

"As a unit, we obviously take in use lots of new technology. Everything is open and transparent, which are values that our manager regularly communicates to us. We are free to choose what tools and technology we want to work with; this makes the process more agile and lean. I am grateful for the freedom that my manager provides me."

After analyzing the data, we can say that we find support for proposition 4 in Telia Next, and that the employees find that their managers emphasize on innovation and learning, thus demonstrating a behavior that is perceived as facilitating knowledge sharing by the employees.

Our findings from Product and IT on the other hand did not give us as clear indication in regards of proposition 4, as Telia Next did. The employees in this department expressed less excitement and support in regards of their managers being good at introducing and implementing innovative solutions. Some of the respondents stated that their manager communicated the importance of being innovative and implementing new ways of working, but fell short in actually implementing them, causing frustration among certain respondents, influencing the perceived support for knowledge sharing.

"I experience that my manager wants us to be an innovative department, who emphasize knowledge sharing and adopting new ways of working, but it is hard to become that when you are so bound by rules and limitations set by the same manager."

Employee Product and IT

"I feel our manager has good intentions, but prefers things to be the way they are."

Employee Product and IT

After reviewing out findings, we find the results to be inconclusive in regards of proposition 4, in Product and IT. It may appear that the employees don't have great expectation on their manager's emphasizing innovation, but that seems to not highly affect how willing the employees are to share amongst each other. It may rather seem that the employees share knowledge with each other nonetheless, but share less with their manager. The respondents did on the other hand express that they experienced their managers as being concerned with organizational

learning and that employees were followed up in a good way to increase learning and progress.

6.3   Leadership commitment

This also affects our suggested proposition 5, were we suggest that how committed a manager is perceived to be by the employees in demonstrating and implementing knowledge sharing efforts, affects the knowledge sharing climate in the organization. As in accordance with Connolly and Kelloway (2003), it may appear that the employees in Telia Norway look at symbols (e.g. objects, acts, relationships) to form judgments about how supportive they perceive their manager to be in regards of knowledge sharing. In both the departments it may seem like the employees especially look at how their manager view new technology and if/how they implement ways of making the knowledge sharing efforts easier.

An example of this is the use of the communication tool; *slack*. This was introduced by one of the managers in Telia Next, and is now used by more than 70 percent of the employees in Telia Norway. Telia Next also have introduced new ways of working, such as the design sprint (e.g. one week working from idea to prototyping) show and tell (e.g. five minute presentation of your current work) and working with alignment of goals through OKR (e.g. objectives and key results). This has had a ripple effect to other parts of the organization, thus also Product and IT.

"The fact that our manager is a "tech freak" and is always updated on the newest technology is comforting for me, since then I know he is always trying to make all the processes lean and effective, without losing the quality of the work. By him introducing slack, he made communication easier and more fun, and everyone started to share more."

Employee at Telia Next

"My manager is highly concerned with our department having a sharing culture, encouraging us to share and learn from each other. To create this atmosphere, we almost always work in rotating teams, and this makes me truly see the value of others contribution to our mission, because we have to cooperate to be successful."

Employee at Telia Next

But some employees in Telia Next also expressed that it could be *too much* implementation of new technology and this causing stress in relation to having too many channels to communicate through. Two employees in Telia Next stated that:

"Our manager encourages us to share in all channels (e.g. wiki page, slack, sharepoint, show and tell etc.) and this is eating up a lot of my time. Sometimes I wish I could focus more on my actual work, rather than sharing it in way to many channels…"

"Sometimes it feels like we are too open, so that we never land on any method or technology"

Even though some of the employee's experiences that it was too much implementation of new technologies and tools to enable communication, the majority of respondents thought that their manager was active in implementing knowledge sharing efforts and that this encouraged to more knowledge sharing among the employees. In light of these findings, we find that proposition 5 is supported in Telia Next.

In Product and IT on the other hand, the respondents did not experience their managers to be committed to implement knowledge sharing efforts or highly engaged in efforts that would facilitate for knowledge sharing.

"I personally feel that my manager is not so committed to knowledge sharing efforts. If I ask for funding to go to a conference where I can share my knowledge and learn more, my manager is reluctant to give it to me. This affects how much I dare to ask for similar things and I experience that my efforts are not rewarded. This actually makes me less eager to engage in sharing initiatives."
                                                      Employee Product and IT

This indicates that it is not only what is being communicated by the manager that influence the perceived support for knowledge sharing by the employees, it is also an important factor that the efforts are actually being implemented and taken into use. The manager must demonstrate supportive behavior for knowledge sharing, by actually engaging in efforts that actually facilitates for sharing. Otherwise it may appear that the manager's behavior is working as a hindrance for knowledge sharing, rather than being a facilitator. Therefore, we find proposition 5 to be not supported in Product and IT.

6.4   Trust

6.4.1   Leader facilitating a trusting environment

By managers promoting and facilitate for interpersonal trust, this can help create a trusting environment in the organization. According to Baker et al. (2006) individuals will tend to share more knowledge if they see others engaging in behavior that is looked upon as being trustworthy. We suggest for proposition 6 that managers who are perceived as honest, fair and trustworthy will increase the perceived support for knowledge sharing in the organization.

Our findings suggest that if a manager holds one or more of these behaviors, it may seem to be positively related to the employees in both departments perceived support for knowledge sharing. Both in Telia Next and Product and IT, there seemed to be a consensus in regards of how important it is for them that they view their leader as honest, fair and trustworthy, supporting Bakers (2006) findings. As stated by respondents:

"I experience my manager as being very transparent in all his actions. This makes it easy for me to know where we stand in our relationship, both at work and outside work. I find it easy to address issues with him, because I know he will take me seriously and give me his honest opinion in a constructive way".
Employee Telia Next

"My manager is always keeping his word. Even though he is very busy, he always takes time to follow up everyone on the team, to ensure that everyone is on track with their work and on the same page in regards of our objectives."
Employee Product and IT

Based on the conclusive findings we find proposition 6 to be supported in both Telia Next and Product and IT, highlighting the importance of having managers who engage in trustworthy behavior, as it seems to have an affect on the perceived support for knowledge sharing in the organization.

6.4.2   Facilitating for both explicit and tacit knowledge sharing

Abrahams et al. (2003) found that different levels of trust is likely to impact how knowledge is shared, regardless of the type of knowledge being tacit or explicit. When sharing knowledge, and especially tacit knowledge, one is thought to rely

on interpersonal relationships and communication (Abrahams et al., 2003). We therefore suggest in proposition 7 that if a manager fosters good interpersonal relations with employees, their perceived support for sharing tacit knowledge will increase. The results were similar both in Telia Next and Product and IT, therefore will review the findings for this proposition as one.

Our results indicate that when the employees in both departments feel trust in their leader, they want to share more knowledge. When their thoughts are heard and taken into consideration by their leader, they seem to want to share more unsolicited. Both in Telia Next and Product and IT, it seems like their leaders are doing a good job in fostering these interpersonal relationships, and therefore creating an arena for sharing built on trust.

"My manager builds a good, trusting relationship with me by listening to me, acknowledging what I say and following up on the matters she says she is going to follow up. This trusting relationship we have is extremely important to me, and motivates me to share more of my knowledge"
Employee Product and IT

The employees in Telia Next and Product and IT indicate that they all over feel trust in their leader, as well as feeling trusted by their leader. This two-ended view of trust seems to be of great importance in fostering a good relationship and knowledge sharing between employees and with their managers. The results also indicate that sharing more personal knowledge, such as tacit knowledge, is especially dependent on the employee-leader relationship.

"We have a great time working together as I don't view him just as my boss, but also consider him a friend. We both trust each other. I'm given a lot of freedom at work, which underpins our relationship. I am a firm believer that freedom creates trust. This trust is important for me to feel comfortable sharing my skills, expertise and personal dilemmas."
Employee Telia Next

Based on the data collected, it seems that a manager who fosters good interpersonal relations increases the employees perceived support for sharing more tacit knowledge. Due to the participants perceived importance of the interpersonal relations on sharing knowledge, especially tacit knowledge, we argue that the results provide support for proposition 7 in both Telia Next and Product and IT. This is in accordance with Abrahams et al. (2003) findings. Not

only does this interpersonal relationship affect the perceived support for sharing knowledge, but also the employees' motivation to share their knowledge unsolicited.

6.4.3   Role model

The managers are often perceived as role models due to being a symbol of their own. The employees' knowledge-sharing behavior is found to be influenced by a number of things, e.g. the leaders adaption and implementation of new things, the leader's encouragement and part taking in knowledge sharing. We therefore suggest in proposition 8 that when the leader is perceived as being a role model, the employees engage in more knowledge sharing.

Our findings indicate that both departments point in the direction that the manager being a role model is a facilitator for knowledge sharing. However, we see some differences between the Telia Next and Product and IT, where Telia Next seem to view their managers more distinctively as good role models than in Product and IT. The main difference between the two departments seems to be with respect to encouragement. Where employees in Telia Next seem to describe their managers as being encouraging, the employees in Product and IT generally seems to be a bit more modest when describing their managers. This is exemplified by the statements of two employees from the two different departments:

"My manager definitely sets a good example when it comes to sharing knowledge. He is the type of manager that doesn't ask for reports, he gives them. He set the model for trying everything, which, in my opinion, makes him come across as very encouraging and motivating for me to do the same."
Employee Telia Next

This is just one of several statements from the employees in Telia Next, giving us a strong indication that in this department, the managers actions and behavior are influencing how the employees engage in knowledge sharing. It may seem that the employees try to adopt their manager's way of behaving, when the manager is perceived to be a good role model.

In Product and IT, the employees considered their managers to be good role models in certain aspects, but expressed a desire for more supportive actions from

their managers, in order to make the culture for knowledge sharing in their department better.

"I think we have a good sharing-culture and won't say there is much missing. However, I think my manager would benefit from pushing and encouraging us even more than she is today as, at least I, would probably share more often if I was reminded of it by her behavior"

Employee at Product and IT

Other statements from the respondents in Product and IT also support this view, that the employees would prefer their managers to engage in more efforts in regards of knowledge sharing and thereby leading by example.

Based on the data we have collected, both departments point in the direction that when the manger is a good role model, the employees engage in more knowledge sharing. The managers in Telia Next are perceived as being good role models that encourage their employees to share knowledge to a large extent. We therefore find that proposition 8 is supported within the department Telia Next.

In Product and IT we see that the managers are perceived as being good to share their knowledge to a certain extent, but that the employees seem to want their managers to be a more distinct role models in regards of knowledge sharing. The employees state that their managers could improve by encouraging and pushing them a bit more to increase their engagement in sharing knowledge and also to display the importance of sharing within the department. We therefore find that proposition 8 is partially supported within Product and IT.

6.5   Findings related to the propositions

In this table we present the findings in a table to give an overview of which proposition is strongly supported (++), supported (+), inconclusive (0) or not supported (-).

Propositions	Findings	
	Telia Next	**Product and IT**
1 *Innovator, facilitator and mentor roles contribute positively to perceived support for knowledge sharing by employees.*	++	+
2 *If the manager is able to create an environment where employees feel willing to share knowledge, they will share more tacit knowledge with each other.*	+	+
3 *If the manager demonstrates openness to new experiences, it will increase perceived support for knowledge sharing in the organization by the employees.*	++	0
4 *Managers who emphasize innovation and organizational learning are perceived as demonstrating supportive behavior that facilitates knowledge sharing in the eyes of the employees.*	++	0
5 *How committed a manager is perceived to be by the employees in demonstrating and implementing knowledge sharing effort, affects the knowledge sharing climate in the organization.*	+	-
6 *Leaders who are perceived as honest, fair and trustworthy will increase the perceived support for knowledge sharing in the organization.*	++	++
7 *If the leader fosters good interpersonal relations with employees, their perceived support for sharing tacit knowledge will increase.*	++	++
8 *When the leader is perceived as being a role model, the employees engage in more knowledge sharing.*	++	+

 ++ Strongly supported, + Supported, 0 Inconclusive, - not supported

Table 1. Findings related to the propositions

7 Discussion

In this paper, we sought out to explore how different managerial behaviors and actions affect the employees perceived support for knowledge sharing, as articulated in our research question.

We have looked at actions and behaviors managers can do to facilitate for knowledge sharing, such as encouraging willingness to share, leadership commitment and trust. The primary contribution of our study is to add on to already existing research by providing a more in depth view on what kind of managerial actions and behaviors that actually are viewed as being facilitating knowledge sharing in the eyes of the employees.

In the following discussion, we will review our findings for the two departments, Telia Next and Product and IT, looking at similarities and differences with regards to the propositions. We will then discuss and elaborate on alternative explanations as to why the results may differ or coincide between the two departments. Thereafter we will review potential limitations regarding the paper and address future research. At the end we will look at what kind of implications our findings can possibly provide to this field of research and end with a conclusion.

7.1 Leadership roles that facilitates for knowledge sharing

In proposition 1, we look at how engaging in different leaderships roles (e.g. innovator, facilitator or mentor) may facilitate for knowledge sharing. This proposition might be considered to be related to proposition 4 (e.g. emphasize innovation and organizational learning) and proposition 7 (e.g. interpersonal relations). When the manager is taking on the role as an innovator, he will as a result be emphasizing innovation and this may be perceived to be a supportive behavior for knowledge sharing in the organization. When reviewing the findings, we found support for proposition 1 in both departments, meaning that when the manager engages in these types of roles, then the employees experience it to be positively related to knowledge sharing. But when looking at our findings in regards of proposition 1 and proposition 4, the results differed. Our findings gave us a strong indication that in Telia Next, if the manager emphasized innovation it would be perceived as a supportive action, thus we can view it in relation to proposition 1. Whereas in Product and IT, we found the results to be inconclusive

in terms of giving us a strong indication. This finding is interesting because it can be interpreted to mean that the employees find innovator, facilitator and mentor roles to be positively contributing to the knowledge sharing climate in the organization, but only if the managers also emphasize the importance of for example innovation and organizational learning.

This is giving us the indication that as in accordance with previous research, engaging in different leadership roles might contribute positively to perceived support for knowledge sharing, but only if the role the managers engage in, is in alignment with the culture of the organization. In regards of proposition 1 and 7, it may look like it is a positively relation between the different leadership roles and if the manager fosters good interpersonal relations with the employees.

7.2   *Balancing the responsibility of creating a knowledge sharing climate*

Another interesting perspective to have in mind when reviewing our findings is where the responsibility lies for creating a knowledge sharing culture within the organization. In this study, we look at what actions and behaviors the managers can engage in to facilitate for knowledge sharing, but this is just a small part of the whole picture. An organization may be considered to be a complex organism, with a lot of different actors, all influencing the climate and culture in the organization. Giving one of these actors (e.g. managers or employees) the full responsibility of creating and facilitating a knowledge sharing culture is not possible.

From our findings, it may seem like a great part of the climate in the organization is dependent on the employees to engage in knowledge sharing, both with each other and their manager. But when reviewing our findings, it is hard to state whether it is the manager's efforts in creating a knowledge-sharing climate that is actually influencing the willingness to share amongst the employees. In both departments, it seemed like the employees were already engaged in their own efforts to create a good culture for sharing, regardless of their manager's effort. Thus, meaning that if the employees are willing to share, they will share knowledge with each other. But the managers actions did play a role in the facilitation of knowledge sharing, whether it was present (e.g. as in the case of Telia Next) or not present (e.g. in the case of Product and IT), indicating that the

managers role in facilitating for knowledge sharing can be considered a hygiene factor; when the manager is trying to create an environment where the employees feel safe (proposition 2) and how committed the manager is perceived to be in demonstrating and implementing knowledge sharing efforts (proposition 5), is positively contributing to the employees perceived support for knowledge sharing, but when it is not present it may act as a negative factor in the eyes of the employees.

7.3   *Openness as a facilitator for knowledge sharing*

We also found other interesting differences in the employees' perception of their managers in the two departments. We proposed that the perceived support for knowledge sharing would increase if the manager demonstrated openness to experience (proposition 3). The differing results between Telia Next and Product and IT may be caused by several aspects.

Due to the people working in Telia Next being relatively new as a group and specifically set together in this department to deliver specific results within a product domain it could have an impact on the responses being quite similar throughout the analysis. One can argue that the employees in Telia Next are somewhat a homogeneous group in terms of some qualities (e.g. seeking innovation, new ways of doing things, openness and creativity), but on the other hand they are also differing from each other, because most of them have different specializations. But they come from a similar background in terms of how they are working (e.g. lean methodology and agile thinking). Within Telia Next, all the employees agreed that their manager demonstrated great openness to experience, which in return was perceived as a facilitator for knowledge sharing. An explanation for the unanimous responses with regards to openness to experience in this department could be related to the nature of the department. This department is supposed to be embracing new ways of thinking, new ways of working and being an innovative pocket within Telia Norway and also the telecom industry. We believe that this gives implications for what kind of managers are drawn towards such a department, what kind of managers that are considered for the job and generally the mindset of the manager and employees.

As a contrast, the employees in Product and IT had opinions that differed in regards of how open to experience they perceived their manager to be, and how this affected the perceived support for knowledge sharing. As we demonstrated in the findings, some of the employees of Product and IT felt like their manager demonstrated openness to experience, whilst others felt like their manager did not. It was mainly through implementing new ways of working that the employees felt like their managers demonstrated openness to experience, which worked as a facilitator for knowledge sharing to some extent. The employees that felt that their managers were less open, indicated that this to some degree affected their perception of support for knowledge sharing. This left the employees feeling that they were on their own in promoting and exploring new things and ways of working.

The ambiguous results could be due to different employees having different managers, which may have different ways of demonstrating (or not demonstrating) openness to experience. However, the employees within Telia Next also have different managers, but still unanimous perception of their managers. The managers in Product and IT have worked in Telia for a longer period and may still be influenced by the typical bureaucratic telecom business with less focus on finding and implementing knowledge sharing efforts, while the managers in Telia Next are specifically chosen to have a specific work-mentality with specifically focus on innovation, which are thought to positively impact the perceived commitment to knowledge sharing efforts in that department. So already in the recruiting process, the two departments look for different profiles, which can be a part of the explanation for the differentiation between Telia Next and Product and IT.

7.4 Leadership commitment to knowledge sharing

We also found differences between the two departments' perception of their manager's commitment in demonstrating and implementing different knowledge sharing efforts (proposition 5). Within the department Telia Next, there were somewhat differing answers, even though most of the respondents agreed that their managers were good at both demonstrating and implementing knowledge sharing efforts. This worked as facilitating the perceived support for knowledge sharing, even though some respondents thought it could be too many channels for

sharing and too much push to share from the managers. As we have learned through working with this study, there are several aspects of an individual (e.g. personality, self-confidence, mindset, interests) that could impact what they perceive as being behavior that facilitates for knowledge sharing. It could be aspects like this that makes the responses here a bit differing, although they all agreed that most efforts from their managers were positive for knowledge sharing.

In Product and IT, several respondents felt like their managers' behavior actually worked as a hindrance in regards of knowledge sharing. The employees didn't experience that their managers would emphasize knowledge sharing efforts, with especially the implementation part being a "problem". It could seem like the managers expressed a commitment to different knowledge sharing efforts, but since it wasn't implemented, the employees didn't perceive this as supportive of knowledge sharing. It could also seem that if an employee tries to take initiative for knowledge sharing efforts into his or her own hands, but receive a reluctant response, it actually makes the employee feel that their manager are less committed to knowledge sharing efforts. This could potentially serve as a barrier for this employee to initiate efforts for knowledge sharing and also sharing knowledge in the future.

7.5   *Trustworthy behavior facilitating interpersonal relations*

In regards of how important trust is in relation to knowledge sharing and how engaging in a trustworthy behavior may impact the perceived support for knowledge sharing, we found that this was highly important for both the employees in Telia Next and Product and IT. Leaders who are perceived as honest, fair and trustworthy (proposition 6) are more likely according to our findings to increase the perceived support for knowledge sharing. This may be due to the fact that to have a good knowledge sharing culture, the presence of interpersonal trust can be a factor that will increase the willingness to share, as we have discussed previously in proposition 7.

The fact that the employees in both departments had similar thoughts about this subject indicate that when the managers engage in behavior the employees perceive as being trustworthy (e.g. being a good listener, involves the employee, acknowledge other thoughts and idea, value the employee's feelings and being

fair), they are fostering good interpersonal relationships in the department. Thus, fostering interpersonal trust is important in order for the employees to feel open, willing and safe to share both their tacit and explicit knowledge.

The majority of the employees stated that their manager was always available to them *online*, but rarely physically present. In our research, we haven't gone into depth about what kind of implication this could have for the employees perceived support for knowledge sharing, but the findings are interesting. Some of the employees in both departments felt there was a certain distance to their manager, especially when some of the managers do not sit on the same floor as the rest of the department. Some considered this to increase the distance from their managers to the rest of the employees, not only in floors between them, but also in regards of creating trust and interpersonal relations. But most employees in both Telia Next and Product and IT expressed an appreciation to their manager's efforts in being available online, which seems to counterweight the lack of their physical presence. This is interesting, since we are looking at a technology department, one could argue that most of the employees are maybe more open to communicating through digital channels. When the managers are being highly available online in the same channels as the employees, it is actually fostering the interpersonal relations, making the employees wanting to participate in knowledge sharing activities in a higher extent, than if the managers did not have a strong presence in their communications tools. This result may be different in other types of departments in Telia Norway, which might not have as much of a focus on technology as Telia Next and Product and IT.

7.6   *Managers as role models*

Another aspect the managers can use to get the employees to engage in more knowledge sharing seems to be by acting in such a way that they are perceived as being role models (proposition 8). In both departments, the employees expressed that if they perceived their manager to be a role model in different aspects, then it made them more inclined to engage in knowledge sharing efforts themselves.

In Telia Next, we found stronger support for this phenomenon, than in Product and IT. This may be due to the fact that in Telia Next they emphasize friendship as an important team value, and their managers are actively engaged in

communication and other types of activities that are perceived as being fostering for knowledge sharing. One could tell from speaking with the employees in that department that they not only valued their managers as a leader, but also as a friend, resulting in close relationships. So they appreciated both their managers effort in work related situations regarding knowledge sharing, but also their effort in interpersonal matters.

Thus, in Product and IT, the employees felt like their managers were good role models in some areas, but wished for a bit more supportive actions from their managers in order to improve the knowledge sharing culture. They mainly felt like their managers were good role models for knowledge sharing, encouraging their employees to share. Although, the aspect of demonstrating and implementing knowledge sharing efforts and perhaps pushing their employees some more would probably have increased their employee's perception of their manager with regards to sharing knowledge.

The departments differ a lot with respect to the nature and organizing of the divisions like we have mentioned earlier. These differences also include the size of the departments, the hierarchy, and their part in the whole of Telia Norway's processes and structures. One reason for the difference we see in this area, and also others, could be that Telia Next is a small and new department, where almost everyone has known each other from the creation of the department. It is characterized by having a flat hierarchy where the employees are given freedom in regards of ways of working, what tools to use and flexibility in work methodology. Everyone in this department sits in the same area, being "buffered" from the rest of Telia Norway, which can imply that the employees have close contact with their managers. Whilst Product and IT is a bigger department that is more connected to the rest of Telia Norway. It is more characterized by bureaucracy and stricter ways of organizing. This can be due to having a higher number of employees, thereby needing more structure in order to organize and facilitate for an effective work environment. The managers of Product and IT don't necessarily sit on the same floor as the employees, therefore they may not be able to create the same "intimate" climate that seem to exist within Telia Next. By being perceived to be a role model may be related to most of our other propositions, because they are all addressing actions and behaviors that can be

related to being a role model in the eyes of the employees. Individuals are different and value different things, so for some employee's openness to experiences might be something that inspires them to engage in more knowledge sharing, whereas others might be more engaged by viewing their manager to be committed in demonstrating and implementing knowledge sharing efforts.

7.7 Concluding model

After gathering and analyzing the data we propose a revised model based on the initial conceptual model (figure.1).
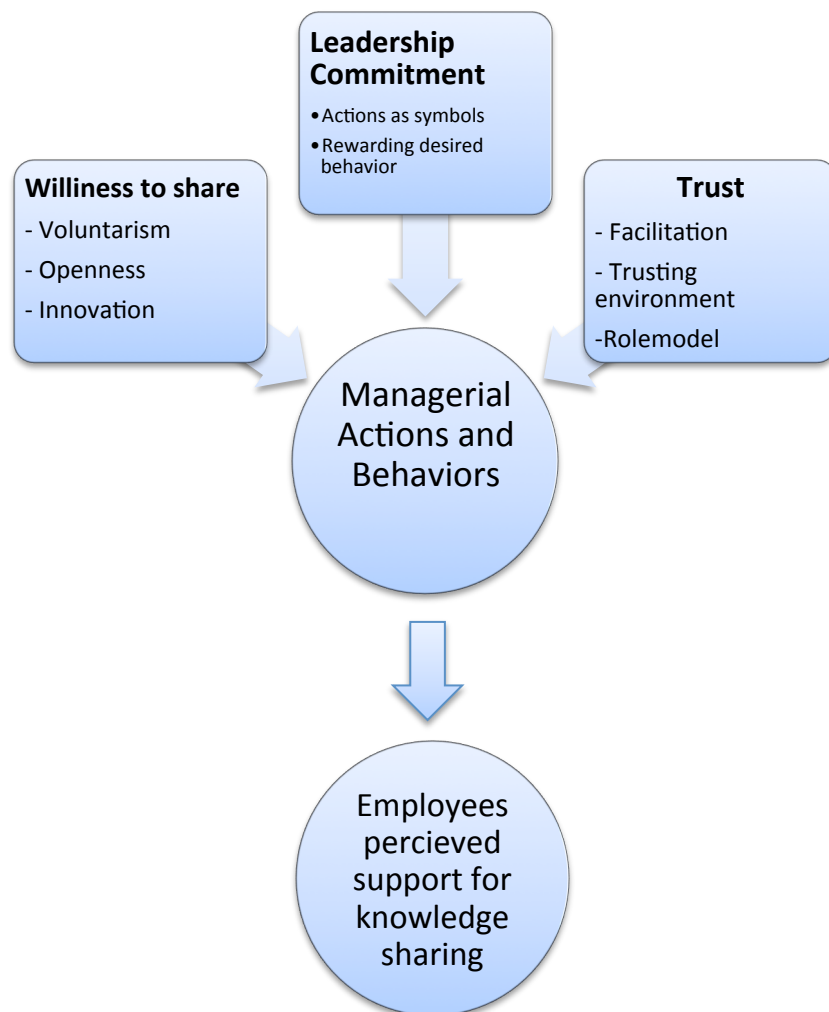
Figure 2. Concluding model

In figure 1 we propose that willingness to share, leadership commitment and trust will influence the knowledge sharing in the organization. After reviewing our

findings, we suggest that different managerial action and behaviors will have an influence on the employees perceived support for knowledge sharing.

We found different variables to be positively related to our three constructs (e.g. willingness to share, leadership commitment and trust), and have added them to our concluding model as variables to explain how these different managerial behaviors and actions affect the employees perceived support for knowledge sharing.

7.8 Potential limitations and future research

Even though this paper has some notable strengths, it also has potential limitations. Because this study relies on the respondent's perception of their managers, future studies could use another method or another type of organization that is not related specifically to technology when trying to replicate the results, thus this could improve the external validity.

This study focused on a limited number of variables that predict what managerial actions and behaviors that are perceived to be supporting knowledge sharing in the eyes of the employees. There might also be other variables that could be used in explaining this interaction. Another potential limitation could be with regards to the sample and respondents. Due to the respondents volunteering for this study, this could also indicate that they are more inclined to sharing knowledge.

As digitalization has the potential to remove tight couplings that exist between information and their storage, transmission and processing technologies (Tilson et al., 2010 p.749), it can also call for new social connections and cognitive models that should be investigated. We therefore suggest that future research may look deeper into the importance of managerial presence in digital channels versus physical presence and how this affects the employees perceived support for knowledge sharing. It could also be interesting how this may differ in other types of departments or organizations, which may not be as concerned with new technology as Telia Norway.

8   Conclusion and implications

In this study, we have looked at how different managerial behaviors and actions affect the employees perceived support for knowledge sharing. Our study provides insight to the field of knowledge sharing and demonstrates that managers' behaviors and actions impact the employees perceived support for knowledge sharing.

By looking at different variables such as encouraging willingness to share, leadership commitment and trust, we found that all these variables have an impact on how supportive the employees perceive their manager to be in regards of knowledge sharing. The study may provide practical implications for a variety of organizations as the managers behaviors and actions affect how much the employees share and the nature of how they work together.

In Telia Next we found support for all propositions in regards of the different actions and behaviors that the managers can engage in to facilitate and increase the perceived support for knowledge sharing by the employees. In Product and IT we found support for the majority of our propositions, however some variables regarding how open the manager is perceived to be, how much the managers emphasize innovation and how commitment the manager is perceived to be in demonstrating and implementing knowledge sharing efforts was not equally strongly supported in this department, as in Telia Next. This finding indicate that the nature of the department or organization matters in regards of what kind of managerial behaviors and actions that will promote and foster knowledge sharing in the eyes of the employees.

From our study, we have found that the manager's ability to create willingness to share, trust and being committed to knowledge sharing indeed increases the employees perceived support for knowledge sharing. We have seen that certain actions and behaviors are important for the manager to engage in, such as what type of leadership role they engage in, creating willingness to share, fostering good interpersonal relationships, establishing trust, being a role model, being innovative, openness to new ways of working and being committed to demonstrating and implementing knowledge sharing efforts.

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10   Appendix

Appendix 1. Interview guide, English

Interview guide

General questions

Gender:

Age:

- How long have you been working here?
- Why did you choose to work here?
- What do you like best about your job? (What don't you like as much?)
  - Why?
- Describe a normal day at work

General questions about collaboration

- Do you prefer to work individually or in a team?
  - In your role at work, would you say it takes a lot or little collaboration with others in your department? Specify.
- Do you feel like it is most facilitated for competition between the employees or collaboration?
  - In what way?
- To which extent are you dependent on others to deliver good results?
  - Describe a situation where you were faced with a problem that you couldn´t solve yourself. Who did you in that case approach and how?
  - Did you experience that the input you received helped to solve the problem?
    - In what way?
- In what way do you communicate with your colleagues? (email/Telephone/ face to face etc.)
- How often do you collaborate with colleagues across the departments?
  - In that case, how do you experience this collaboration?

General questions about knowledge sharing

Facilitating different types of knowledge

- How do you experience sharing your knowledge with your colleagues?
  - In what way do you feel that it is different to share knowledge with people within your department versus outside?
  - Who is it easiest for you to share knowledge with in Telia?
- To which extent do you expect your colleagues to share their knowledge with you?
- Are there some types of knowledge you are more willing to share than other? (Tacit knowledge-e.g. Skills, ideas, experience/explicit knowledge-e.g. Can be stored, verbalized, codified)
- What do you perceive as barriers to sharing your knowledge with colleagues?
  - Why?

Leadership behavior

- Could you briefly describe your leader?/ manager and your relationship?
- Is it easy for you to communicate directly with your leader?
    - How easy would you say it is for you to address issues/different matters with your leader?
- To what extent do you experience that your leader involves you in different matters regarding the organization?
- To what extent du you experience that your thoughts and ideas are valued by your leader?
- Have you experienced that different types of leadership affect how much you share (Knowledge) at work?

Willingness to share

Voluntarism

- How willing would you say you are to share your knowledge with others? (How comfortable are you with doing this?)
    - Describe a situation where you shared your knowledge with another colleague?
    - In what channel do you share most with your colleagues?
    - Would you say that you are available for your colleagues if they would need it?
- Do you experience that your leader thinks it is important that the employees in Telia share their knowledge with one another?
    - If yes, in what way is that communicated?

Openness

- To what extent do you experience your leader as open/curious of new things?
    - In what way?
- To what extent do you perceive your leader as open to use new technology?

Innovation

- To what extent du you experience that your leader implement new and innovative solutions/ways to do things?
    - Describe the last time that happened
    - To what extent does this affect your willingness to share knowledge?
- To what extent do you experience that there are room for trying and failing in your department?
    - Describe a situation where you experienced a dysfunctional (?) collaboration
    - What did you learn?
    - What kind of feedback did you get from your leader with regards to this situation?
        - How did you experience that your leader handled the situation?

Commitment to Knowledge sharing

Management´s contribution to knowledge sharing

- Do you experience that the *management* wants you to share knowledge with each other?
    - If yes, In what way do you experience that they facilitate for this?

- Can you give some examples on what your leader has done to make knowledge sharing easier/more efficient/more effective for you?

Incentives to knowledge sharing

- What do you experience that you get in return when you share your knowledge with others?
- What do you experience that you get back from your leader when you share your knowledge?
    - Would you share more if you experienced to get more back?
        - In that case, what would be a motivator for you?

Trust

Leader´s ability to facilitate trust

- To what extent do you feel trust to your leader?
    - In which ways does your leader establish trust with you?
    - In what way does your leader enable trust between the employees in your department?
    - In what way is this trust important for you when you share knowledge?
- To what extent do you experience your leader as being fair?
- Do you experience that your leader does as he/she has said he/she would do?

Role model

- To what extent do you experience your leader as good at communication?
- In what way do you experience that your leader encourage knowledge sharing?
    - To what extent do you experience that your leader set a good example with regards to knowledge sharing?
        - In what way?
- Do you have any previous experiences where organizational changes affects the knowledge sharing in an organization?
    - In what way?

Is it anything you would like to add or any other reflections?

Thank you so much for your time.

Appendix 2. Interview guide, Norwegian

Intervjuguide

Generelle spørsmål

Kjønn:

Alder:

- Hvor lenge har du jobbet her?
- Hvorfor har du valgt å jobbe her?
- Hva liker du best med jobben din? Evt hva liker du ikke?
    - Hvorfor?
- Beskriv en vanlig dag på jobb

Generelle spørsmål om samarbeid

- Liker du best å jobbe individuelt eller i team?
    - I din rolle på jobb, vil du si det krever mye eller lite samarbeid med andre i din avdeling? I så fall utdyp.
- Opplever du at det er lagt mest til rette for konkurranse mellom de ansatte eller samarbeid?
    - På hvilken måte?
- I hvilken grad er du avhengig av andre for å gjøre en god jobb?
    - Beskriv en situasjon hvor du møtte på et problem du ikke klarte å løse selv. Hvem henvendte du deg til i så fall og hvordan?
    - Opplevde du at hjelpen du fikk bidro til å løse problemet?
        - På hvilken måte?
- På hvilken måte kommuniserer du med kollegaene dine?
- Hvor ofte samarbeider dere på tvers av avdelinger?
    - hvordan opplever du dette samarbeidet i så fall?

Generelle spørsmål om kunnskapsdeling

Fasilitering for ulike typer av kunnskap

- Hvordan opplever du det dele kunnskap med de du jobber med?
    - Hvordan er det ulikt å dele innad versus utenfor din avdeling?
- I hvilken grad forventer du at kollegaene dine deler sin kunnskap med deg?

Er det noen kunnskap du er mer villig til å dele enn annen? (Vi beskriver kort tacit og explicit kunnskap for intervjuobjektet)

- Hva opplever du som hindrende for at du skal dele kunnskap med andre kollegaer?
    - Hvorfor?
- Hvem er det enklest for deg å dele kunnskap med i bedriften?

Lederstil

- Beskriv lederen kort og relasjonen dere har
    - Påvirker dette hvor mye du deler med andre?
- Er det lett for deg å kommunisere direkte med lederen din?

        o Hvor enkelt er det for deg å ta opp ting med lederen din?
- I hvilken grad opplever du at lederen din involverer deg i ulike problemstillinger som angår bedriften?
- I hvilken grad opplever du at dine tanker og ideer blir verdsatt av lederen din?
- Har du opplevd at ulike lederstiler har påvirket hvor mye du deler på jobb?

Villighet til å dele

Frivillighet i forhold til å dele

- Hvor villig er du til å dele din kunnskap? (Hvor komfortabel er du med det?)
  - Beskriv en situasjon hvor du delte kunnskap med en kollega (Hva slags kunnskap var dette? (Tacit/explicit)
  - I hvilken kanal deler du mest i?
  - Er du tilgjengelig for andre kollegaer hvis de måtte trenge det?
- Opplever du at lederen din vil at dere som jobber i bedriften skal dele kunnskap med hverandre?
  - Hvis ja, på hvilken måte blir dette kommunisert?

Leders grad av åpenhet

- I hvilken grad opplever du lederen din som åpen/nysgjerrig for nye ting?
  - På hvilken måte?
- I hvilken grad oppfatter du lederen din som åpen for å ta i bruk ny teknologi

Innovasjon

- I hvilken grad opplever du at lederen din implementerer nye innovative løsninger og måter å gjøre ting på?
  - Beskriv sist det skjedde
  - I hvilken grad påvirker dette din villighet til å dele kunnskap?
- I hvilken grad opplever du at det er rom for å prøve og feile i din avdeling?
  - Beskriv en situasjon hvor du opplevde å være i et samarbeid som ikke fungerte
  - Hva lærte du?
  - Hva slags tilbakemelding fikk du fra lederen din i forhold til denne situasjonen?
    - Hvordan opplevde du at lederen din håndterte situasjonen?

Lederens forpliktelse til kunnskapsdeling

Leder og ledelsens bidrag til kunnskapsdeling

- Opplever du at ledelsen ønsker at dere skal dele kunnskap med hverandre?
  - Hvis ja: På hvilken måte opplever du at de legger til rette for dette?
- Kan du gi noen eksempler på hva lederen din har gjort for å gjøre kunnskapsdeling lettere/ raskere / mer effektivt for deg?

Insentiver til kunnskapsdeling

- Hva opplever du at du får når du deler av din kunnskap med andre?
- Hva opplever du at du får tilbake av lederen din når du deler av kunnskap din?
  - Ville du delt mer dersom du opplevde å få mer tilbake?
    - I så fall hva ville motivert deg?

<mark>**Tillit**</mark>

Leders evne til å fasilitere for tillit

- I hvilken grad føler du tillit til lederen din?
    - På hvilke måter skaper lederen din tillit hos deg?
    - På hvilken måte skaper lederen din tillit mellom de ansatte i avdelingen?
    - På hvilken måte er denne tilliten viktig for deg når du skal dele kunnskap?
- I hvilken grad oppfatter du lederen din som rettferdig?
- Opplever du at lederen din gjør som h*n har sagt at h*n skal gjøre?

Rollemodell

- I hvilken grad oppfatter du lederen din som god til å kommunisere?
- På hvilken måte opplever du at lederen din oppfordrer til deling av kunnskap?
    - I hvilken grad opplever du at lederen din går foran som et godt eksempel i forhold til dette?
        - På hvilken måte?

- Har du erfaring fra om organisatoriske endringer påvirker kunnskapsdelingen i organisasjonen?

Er det noe du vil tilføye eller andre refleksjoner du har rundt dette?

Takk for at du tok deg tid til å svare på spørsmålene våre.

Appendix 3. Coding scheme

Proposition 1-4

Respondent	Proposition 1	Proposition 2	Proposition 3	Proposition 4
1 TN	SS	SS	S	SS
2 TN	S	I	SS	S
3 TN	SS	S	SS	SS
4 TN	SS	S	S	SS
5 TN	SS	S	SS	SS
6 TN	S	S	S	S
7 PI	S	S	I	I
8 PI	SS	I	I	S
9 PI	S	S	S	I
10 PI	SS	S	I	I
11 PI	S	S	S	S
12 PI	SS	S	S	I

Proposition 5-8

Respondent	Proposition 5	Proposition 6	Proposition 7	Proposition 8
1 TN	SS	SS	S	SS
2 TN	S	SS	SS	SS
3 TN	S	S	SS	SS
4 TN	SS	SS	S	S
5 TN	S	SS	SS	SS
6 PI	S	S	SS	S
7 PI	NS	S	SS	I
8 PI	I	SS	S	S
9 PI	S	S	SS	S
10 PI	NS	SS	S	S
11 PI	NS	S	I	S
12 PI	I	SS	S	SS

SS= Strongly supported, S= Supported, I= Inconclusive, NS=Not supported

TN= Telia Next
PI= Product and IT

Respondent	Duration	Willingness to share	Leadership Commitment	Trust
1 TN	1 year	++	++	++
2 TN	< 1 year	-	+	++
3 TN	1,5 year	++	++	++
4 TN	1 year	++	++	++
5 TN	< 1 year	++	++	+
6 TN	2 years	+	+	+
7 PI	1,5 year	+	+	-
8 PI	8 years	+	-	+
9 PI	>2 years	+	-	++
10 PI	< 1 year	-	+	+
11 PI	< 1 year	-	- -	+
12 PI	5 years	+	+	+

++ Strongly supported, + Supported, 0 Inconclusive, - not supported

Appendix 4. Preliminary Thesis Report