Jenika Huhtakangas

Mapping the Internal Knowledge Sharing Practices to Support Knowledge Management

- *A Case Study*

Master's Thesis in Governance of Digitalization
Supervisor: Professor Gunilla Widén
Co-supervisor: Docent Shahrokh Nikou
Faculty of Social Sciences, Business and Economics
Åbo Akademi University

Åbo 2020

Acknowledgements

The past two years as a student in the Master's programme in Governance of Digitalization has been an unforeseen opportunity for me to open doors, create new networks, and meet new people. In addition to the broad knowledge about governance of digitalization, acquired English language skills, and the Master's degree, I am particularly happy that I had the courage to take a leap out of my comfort zone and throw myself into this adventure of studying after multitude years in working career.

This thesis would not have finished on time without my wonderful supervisor, Gunilla Widén, Professor, Information Systems Åbo Akademi University, who has been invaluable help and support during the thesis process. I want to thank you for all your effort, time and encouragement, and I highly appreciate the inspiring motivation and trust you had in me throughout the process. Without a doubt, the thesis would lack many vital elements without the guidance, support, and knowledge of my supervisor.

Equally, I want to express my gratitude to a few selected managers of the case company, who advised and helped me to form a better picture of the operations of the case company, and provided me a unique and educational experience by allowing me to be a part of an interesting phase of the organizational reform. In addition, I profoundly want to thank the operational employees of the sub-unit of the case company, who participated in the study as interviewees, and provided me their time, input, and valuable insights.

Above all, I am thankful for my family and friends, and I want to express my gratitude to all those people who encouraged me to carry on and for always believing in me. Especially, from the bottom of my heart, I want to thank my dear sister Melisa and friend Tuulia for supporting me when most needed - when I count my blessings, I count you twice. Finally, even though this Master's programme has been full of work, I do not regret for a single moment. At the same time, it is both wistful and delightful to note that after this thesis and with the degree of Master of Science in Economics, my journey continues into new adventures, of which I am grateful.

Jenika Huhtakangas
9.6.2020, Åbo, Finland

ÅBO AKADEMI UNIVERSITY – Faculty of Social Sciences, Business and Economics

Abstract for Master's Thesis

Subject: Governance of Digitalization

Writer: Jenika Huhtakangas

Title: Mapping the Internal Knowledge Sharing Practices to Support Knowledge Management

Supervisor: Gunilla Widén | Supervisor: Shahrokh Nikou

Abstract:

This thesis explores individuals' knowledge-sharing practices in a real-life organization, and it is done as a commission for a Finnish environmental management company. The aim of the thesis is to provide a preliminary mapping of both the organizational and individual factors that either inhibit or enable the internal knowledge sharing practices of the case company so that these practices can be further developed.

Knowledge and knowledge sharing are argued to be one of the most important competitive advantages in organizations. Previous studies have shown that if an organization does not operate on the best available knowledge and knowhow, a great deal of resources is wasted. Thus, it is indisputable that knowledge sharing, and knowledge management are important to an organization. Even though knowledge management is an extensively used term in today's business life, it is still somewhat unclear how knowledge management and internal knowledge sharing practices can be better managed and developed in organizations. Furthermore, organizational and individual factors that influence individual's knowledge behavior in internal knowledge sharing practices is relatively neglected area in the knowledge management research.

The study was conducted as an empirical qualitative case study, in which both participant observations and semi-structured interviews were used as data collection methods. A content analysis was carried out to analyze the data and to create SWOT analyses to illustrate the factors affecting internal knowledge sharing practices. The barriers and enablers of both organizational and individual factors were illustrated as own SWOT analyses. This thesis lays a great emphasis on the collected data from the interviewed operational personnel of one of the sub-units of the case company.

The results show that the case company could benefit from better communication, knowledge sharing, and knowledge management within the organization. Based on the reviewed literature and the research results, this thesis suggests an action proposal for the future improvements of the case company's communications, knowledge sharing practices, and knowledge management. The proposed plan for action suggests that the future developments of the case company should focus on defining formal and shared policies, determining tools, training and orientation systems, managing through knowledge, and focusing on individuals' needs. However, in order to generalize these findings in the case company, further research is needed. For instance, an extended study, including both internal and external networks could increase more general understanding of the development needs of the case company's knowledge management and knowledge sharing practices.

Keywords: Knowledge Sharing, Knowledge Transfer, Internal Knowledge Sharing Practices, Knowledge Management, Change Management, Action Proposal

Date: 9.6.2020 | Number of pages: 122

TABLE OF CONTENTS

List of Figures

Terms and Abbreviations

HRM	Human resource management. HRM practices affect and can promote the individuals' knowledge-sharing motivation, especially the intrinsic motivation to share knowledge (Gagné, 2009).
IA	Intangible assets. Intangible assets are the opposite to tangible assets. For example, knowledge and know-how are considered intangible assets as they are very hard to copy. (Dalkir, 2011; Kumaraswamy & Chitale, 2012)
ICT	Information Communication Technology. A general term for data management and system management (Kuettner, Diehl & Schubert, 2013).
IC	Intellectual capital. Intellectual capital consists of organizations core competencies such as its tacit and explicit knowledge and know-how which can be acquired, for instance, through knowledge management processes (Dalkir, 2011; Pinho, Rego & Cunha, 2012).
SME	Small and medium-sized enterprises. According the European Commission employment criterion (2016), an SME is any business that employs less than 250 people, but more than 50 employees. To be specific, the case company employs in total 350 employees, and the annual turnover exceeds 50 million. However, the amount of the operational personnel, which were under study, is approximately one hundred persons (100). Therefore, this research focuses only to SMEs. However, in this thesis, organization and company are used as synonyms for SME and vice versa.
SWOT	Business analysis, where the characteristics of the organization or function are divided into four categories, which are strengths, weaknesses, opportunities and threats (Sevkli, Oztekin, Uysal, Torlak, Turkyilmaz & Delen, 2012).

1 INTRODUCTION

In this chapter the area of research is briefly described, and the motivation to the research topic and a research gap are defined. In addition, the objective of the thesis and the research questions are posed, as well as the structure of the thesis is shortly outlined.

1.1 Area of Research

It is said that knowledge is power and shared knowledge brings success (Sydänmaanlakka, 2012). Knowledge sharing can be regarded as a business transaction process and, thus, considered as a central factor for businesses (Barachini, 2009; Stary, Barachini & Hawamdeh, 2008). Additionally, regardless of the size of the company or the industry that the company operates in, knowledge management and knowledge sharing are needed in managing change in an ever-changing environment. (Juholin, 2009; Savolainen & Lehmuskorpi, 2017; Väisänen, 2019; Wendelin, 2013) However, due to the multifaceted and complex phenomenon of knowledge (Blackler, 1995; Stary et al., 2008) and its contextuality (Halonen & Laukkanen, 2008; Widén, 2017), knowledge, and both its management and sharing practices, require a broad view and a deep understanding of the role of knowledge in all company operations (Foss, Husted, Michailova, 2010; Laihonen, Hannula & Helander, 2013).

In order to take the full advantage of knowledge, it must be shared and disseminated throughout the organization operations and products (Janus, 2016; Laihonen et al. 2013). However, sharing and disseminating knowledge throughout the organization is rarely a straightforward process. Earlier studies have demonstrated that knowledge does not flow easily even when an organization makes a considerable effort to enable knowledge sharing and exchange. (Dalkir, 2011; Hislop, 2013; Szulanski, 1996) Therefore, due to the human involvement in knowledge, knowledge sharing boils down to the individuals (Henttonen, Kianto & Ritala, 2016). Further, functional interaction and communication in the organization is a starting point for good knowledge management and, thus, a prerequisite for knowledge sharing (Juholin, 2009; Sydänmaanlakka, 2014; Wendelin, 2013). Therefore, individuals and their participation and willingness to share knowledge are crucial for knowledge sharing in organizations (Ardichvili, 2008; Barachini, 2009; Okkonen, Vuori & Helander, 2018).

To conclude, the increasing amount of knowledge in workplace context requires broad understanding on how to interpret knowledge in an interactive way. This, in turn, obliges new forms of leadership in order to balance successfully in between the interface of knowledge and decision making (Mitronen & Raikaslehto, 2019; Solovjew-Wartiovaara, 2019; Sydänmaanlakka, 2012). Becoming a *knowledge-sharing organization* requires above all new leadership and change management skills, which can further provide supportive knowledge management structures, utilize modern technologies, and encourage a knowledge sharing culture. One of the main goals of knowledge management is to create an organizational culture and work environment that encourages people to share their knowledge (Kuitunen, 2020; Sydänmaanlakka, 2012). Furthermore, the knowledge sharing culture enables a work environment that supports the cooperation, motivation, trust, and skills of individuals needed for effective knowledge sharing (Janus, 2016; Kuettner et al., 2013; Razmerita, Kirchner & Nielsen, 2016).

1.2 Motivation for the Study

Knowledge is vital to organizations and, therefore, it is essential to ensure the transfer and sharing of knowledge among employees (Janus, 2016; Nonaka & Takeuchi, 1995; Laihonen et al., 2013). Knowledge sharing per se has been studied a lot, and the general motivations behind employee knowledge sharing are well known (Ardichvili, 2008; Lin, 2007; Vuori & Okkonen; 2012). However, typically, research in the knowledge management field mainly focuses on the organizational profitability and productivity perspectives, and the studies conducted in workplace contexts are primarily based only on the individual's information behavior or knowledge skills (Vuori & Okkonen, 2012). Therefore, the knowledge sharing practices in real-life work environment have been relatively less elucidated (Foss et al., 2010; Razmerita et al., 2016; Sydänmaanlakka, 2014; Widén, 2017), and detailed studies about knowledge sharing process are relatively rare (Ahn & Hong, 2019). However, the greatest benefit can be gained through understanding of the factors that influence knowledge sharing practices and knowledge sharing behavior of employees in real-life organizations (Razmerita et al., 2016). Hence, there is a growing need for a situational approach to knowledge use and sharing (Solovjew-Wartiovaara, 2019). It can be stated that there is a clear research gap on real-life studies of knowledge sharing practices from an employee's perspective, in which both organizational and individual factors are considered simultaneously.

Furthermore, the need for this research has arisen from the case company, which can be seen as a mandator of this research. The author of the thesis has no prior connection with the case company. The case company is currently undergoing a major reform of its core operations and also their communications and knowledge sharing functions are being reformed. Although the case company has developed its knowledge sharing practices and communications during a reform project, a corresponding empirical study directly related to knowledge management and knowledge sharing practices from the perspective of employees has not yet been done in the case company. Therefore, this study can bring new perspectives to the future reforms of the case company and provide valuable additional knowledge on the current state of the subject. The author of this thesis has a personal motivation to innovate modern knowledge management and finds the field of knowledge management and knowledge sharing interesting. Moreover, the author of this thesis strongly believes in the development of business capabilities by utilizing knowledge more effectively.

It is noteworthy that this research focuses only to small-and-medium-sized enterprises (SMEs) operating in the same country, and not, for instance, to multinational corporations operating in different countries and time zones. To be specific, according the European Commission employment criterion (2016), an SME is any business that employs less than 250 people, but more than 50 employees. The number of employees from 500 to 250 was reduced in 1995 and further, the characteristics were refined in 2003 (European Commission, 2016). The case company employs in total 350 employees, and the annual turnover exceeds 50 million, but the amount of the operational personnel, which were under study, is approximately one hundred persons (100). In addition, the knowledge management and knowledge sharing practices challenges with the case company are typical of a small or medium sized company rather than larger company (Rossignoli, 2017; Sydänmaanlakka, 2012; Zieba, Bolisani & Scarso, 2016). Typically, in the literature, the large enterprises face a different kind of challenges and barriers to knowledge sharing practices, as the case company under investigation in this thesis does. Therefore, due to the nature of the challenges in the case company's knowledge management and sharing practices, and as this study focused only on the operational staff of the case company and only its one sub-unit, the case company can be considered as an SME in this thesis.

1.3 Objective of the Study and Research Questions

The purpose of this thesis is to provide a preliminary mapping of the case company's ongoing and upcoming communications and knowledge sharing development project by identifying the barriers and enablers of the case company's internal knowledge sharing practices. In addition, based on the results of the research, the aim is to provide an action proposal to better manage and develop knowledge management and knowledge sharing practices of the case company. The study is conducted as an empirical qualitative case study, in which the employees' perspectives are obtained by interviewing the operational personnel of one sub-unit of the case company.

There is one main research question and three supporting research questions. By answering to the supporting research questions, the main research question is answered. The main research question is as follows:

> *How can knowledge sharing and internal knowledge sharing practices be better managed in small and medium-size enterprises (SMEs)?*

The supporting research questions are:

> RQ1: *Why is knowledge sharing and its management important to an organization?*
>
> RQ2: *What organizational and individual factors influence the internal knowledge sharing practices?*
>
> RQ3: *How can internal knowledge sharing practices and knowledge management be developed within a SME?*

1.4 Structure of the Thesis

This section covers the design of the present study and briefly outlines the main chapters and their contents. This thesis is divided into six chapters and they are organized as follows:

Chapter 1 presents an overview of the study and introduces the topic of the research, defines a research gap that motivates the research objectives and questions, and describes the structure of this thesis.

Chapter 2 and **Chapter 3** cover the literature review of this thesis and provides a holistic viewpoint for further analysis of the research results. Chapter 2 presents relevant concepts for the research, such as knowledge, knowledge sharing, knowledge management, and change management. Chapter 3 focuses to deepen the theoretical background on the factors that influence knowledge sharing practices and explores both organizational and individual factors, such as organizational culture, technology, as well as individual's motivation, skills and trust.

Chapter 4 explains the chosen research methodology and elaborates the motivations for choosing a qualitative case study approach as a research method, data collection processes, and qualitative data analysis strategies. In addition, the case company is briefly presented.

Chapter 5 provides a detailed presentation of the research findings. To simplify the presentation of the results of the findings are summarized and illustrated as SWOT analyses of both the organizational and the individual factors.

Chapter 6 summarizes the main findings and reflects them in relation to the literature. Based on the findings, a proposal for action is suggested. Finally, the chapter answers the research questions and discusses the reliability and limitations of the study as well as draws implications for further research.

2 MANAGING KNOWLEDGE SHARING IN SMES

The purpose of the literature review in this empirical research is to shed light on the topic of this thesis in a scholarly manner and; thus, to answer the main research question identified in the first chapter: *'How can knowledge sharing practices support internal knowledge sharing and its management in SMEs?'*. Different theories cover the findings and concepts of several researchers and help to understand the relevance and significance of the research. However, due to the large amount of the theoretical perspectives and literature of the topic, this literature review is limited to a detailed presentation of academic literature that is specifically related to the research question of the study. The literature review of this thesis is divided into following sub-section. Section 2.2. analyze extensively literature of both modern knowledge management and, in section 2.3. the factors influencing knowledge sharing practices.

In this chapter, the core concepts of the research, such as *knowledge, knowledge sharing,* and *knowledge management*, are clarified. In addition, the topic literature of *change management* and its role in knowledge sharing is presented. The following chapter answers the first supporting research question: *'Why is knowledge sharing and its management important to an organization?'*.

2.1 Knowledge

2.1.1 Knowledge as a Concept

Knowledge is a multifaceted phenomenon and its diversity cannot be unambiguously described (Blackler, 1995; Dalkir, 2011; Stary et al., 2008). To put it briefly, knowledge can be described as a state of mind, an object, a process, an individual's experiences, insights, values, and prerequisites, for both accessing information and skills and, thus, as a framework for evaluating new experiences and information (Halonen & Laukkanen, 2008; Sydänmaanlakka, 2012). As stated by many researchers (e.g. Hislop, 2013; Widén, 2017), knowledge as a concept is abstract and, thus, is highly dependent on its context. Therefore, knowledge can be classified into different types, such as tacit, explicit, cultural, functional, conceptual, embedded, individual, social, declarative, processual, causal, conditional, relational, and pragmatic (Halonen & Laukkanen, 2008).

According to many researchers, knowledge is a central factor for businesses and one of the main sources of lasting competitive advantages in organizations (Hislop, 2013; Nonaka, 2007; Stary et al., 2008). However, in order to exploit the knowledge, it must be first identified and captured and, then, utilized wisely and in a controlled manner throughout the organization (Jantunen, 2005; Nonaka & Takeuchi, 1995). More precisely, according to Janus (2016), knowledge is useless if it is not embedded in the organization’s products and processes. Similarly, Laihonen et al. (2013) states that knowledge is not automatically valuable or creates a competitive advantage. Knowledge can be even detrimental rather than useful to an organization, if the data collection emphasizes rather quantity than quality and usability (Laihonen et al., 2013; Janus, 2016).

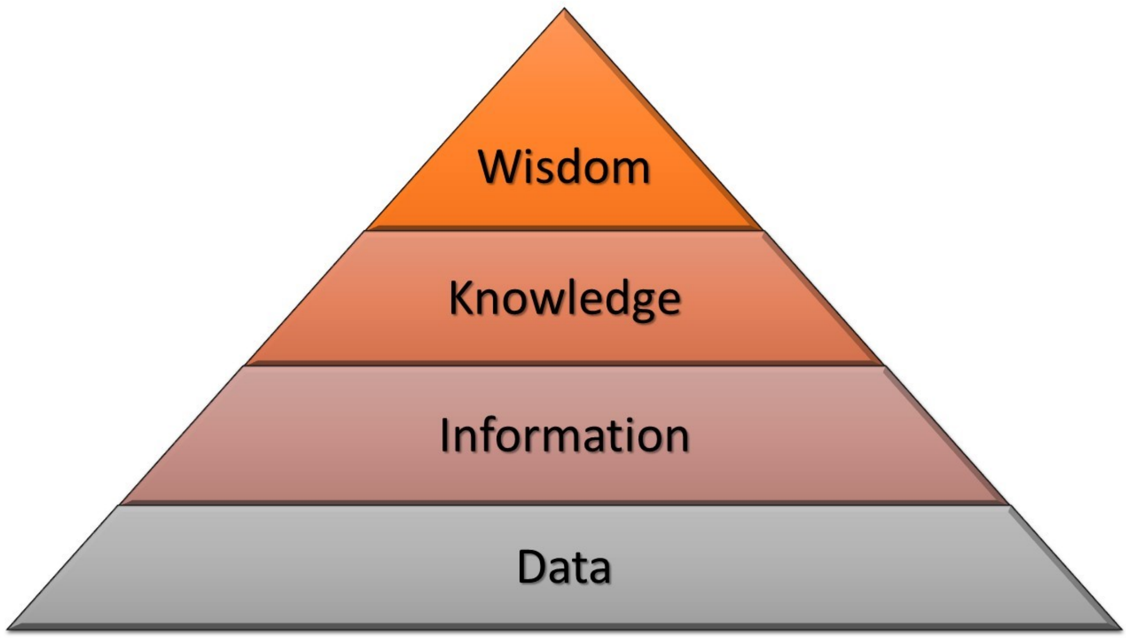
Indeed, the amount of data itself is a challenge and the organizations constantly need to develop new tools to cope with the ever-increasing amount of data, information and knowledge (Burmeister, Drews & Schirmer, 2018; Pirkkalainen, Salo, Makkonen & Tarafdar, 2017). Typically, a flood of knowledge can result to overcapacity either in person, in an information system, or an organization, and knowledge is lost or left unused (Laihonen et al., 2013; Tarafdar, Gupta, Turel, 2015). Therefore, one of the most important challenges related to knowledge and its management is its sharing (Sydänmaanlakka, 2012; Pinho et al., 2012; Laihonen et al., 2013). However, it is not axiomatic how knowledge should be shared and managed (Halonen & Laukkanen, 2008). Knowledge sharing is discussed in more detail in Section 2.2. and the concept of knowledge management is defined and addressed more precisely in Section 2.3.

Knowledge is often used simultaneously with concepts of data and information (Faucher, Everett & Lawson, 2008). The differences in terms are, of course, due to the use of knowledge, which is typically based on the acquisition, dissemination and utilization of knowledge (Hislop, 2013). Although the terms used in practice differ from what they actually mean, the user does not see much difference between them (Baškarada & Koronius, 2013). It should also be noted that these terms often are used as synonyms in Finnish, which is also the language used in the case company. To clarify, the concepts related to knowledge and their relationships to each other are explained briefly next.

2.1.2 Data, Information, Knowledge, and Wisdom

There are different versions and definitions of the knowledge-related terms as well as for defining the hierarchy of knowledge. A common and a classical way is to distinguish data, information, and knowledge from each other and to present them as a pyramid of knowledge (Bender & Fish, 2000; Sydänmaanlakka, 2012). The pyramid of knowledge used in this study is illustrated in Figure 1, in which data, information, knowledge and wisdom are described. According to Bender and Fish (2000), the pyramid follows a so-called value chain model, which means that the other elements complement each other and, thus, form a more processed knowledge that extends to wisdom. Hence, data is considered as the raw fact and is located at the bottom of the pyramid. Information, on the other hand, is processed data and is therefore above data. Knowledge is contextualized information and is set above information (Bender & Fish, 2000). The pyramid is supplemented with wisdom, which is considered as accumulated knowledge, and is thus the top of the pyramid (Baškarada & Koronios, 2013). In other words, data is seen as a prerequisite for information whereas information is seen as a prerequisite for knowledge (Bender & Fish, 2000). Knowledge is the combination of both data and information and wisdom is the ability to vision, foresight and operate based on the data, information and knowledge gathered (Dalkir, 2011).

Figure 1. The Pyramid of Knowledge, DIKW Hierarchy. Developed from Baškarada and Koronios (2013, p. 6)



Moreover, some of the researcher's state that in addition to the pyramid of data, information, and knowledge, there is both intelligence and wisdom, where intelligence is formed before wisdom (Sydänmaanlakka, 2012). Others argue that the pyramid of data, information, knowledge and wisdom is extended to enlightenment and then to an additional level of existence (Faucher et al., 2008). However, this study does not focus in more detail on the differences of the pyramid of knowledge, but only seeks to clarify the distinction between data, information, knowledge, and wisdom in order to better understand the concept of knowledge used in this study.

In conclusion, knowledge is, in a way, both a warehouse and a process at the same time and is derived from data and information (Sydänmaanlakka, 2012). Similarly, data and information about history and future trends can be transformed into knowledge and through it into wisdom and, thus, further utilized within the organization (Mourya & Gupta, 2012). From this perspective, knowledge can be seen as part of tacit knowledge, while data and information are considered as part of explicit information (Sydänmaanlakka, 2012; Virtainlahti, 2009) and, thus, the concepts of tacit and explicit knowledge are introduced next.

2.1.3 Tacit and Explicit Knowledge

According to Dalkir (2011), the original study by Nonaka (1994), found that there are two different forms of knowledge, which are tacit knowledge and explicit knowledge. Some authors use similar terms, such as implicit or experiential knowledge, to describe the transformation of knowledge phase from intangible to tangible (Janus, 2016). In this thesis, however, the terms tacit and explicit knowledge are used as synonyms for implicit and experiential knowledge.

Tacit knowledge is something that cannot be fully codified, and it often refers to knowledge that is neither verbal nor subject-specific (Dalkir, 2011; Nonaka, 2007; Virtainlahti, 2009). In addition, according to Bucowitz and Williams (1999), tacit knowledge can also be knowledge that an individual is simply unable to articulate and, thereby, transform into knowledge. As an example, facial recognition, personal experience, or bodily knowledge can be considered tacit knowledge (Dalkir, 2011; Hislop, 2013). Therefore, tacit knowledge can be described as highly personalized knowledge or 'know-how' and is more than we can say or express and, thus, is hard to codify (Bukowitz & Williams, 1999; Dalkir, 2011).

Explicit knowledge is the opposite of tacit knowledge (Virtainlahti, 2009). Consequently, explicit knowledge is documented, visible and, thus, easily expressed, stored and distributed (Dalkir, 2011; Hau, Kim B, Lee & Kim Y, 2013; Hislop, 2013). All storages, such as man-made databases, books and the web are and provide explicit knowledge, as well as all visuals, sound and movement can be considered explicit knowledge, such as recorded words, numbers and musical notations (Bukowitz & Williams, 1999; Dalkir, 2011; Halonen & Laukkanen, 2008; Virtainlahti, 2009). Since, explicit knowledge can be expressed fairly easily by using language or other forms of communication, it can be equated to information (Bukowitz & Williams, 1999). The differences between the characteristics of tacit and explicit knowledge are presented in the Figure 2 below.

Figure 2. The Characteristics of Tacit and Explicit Knowledge. Developed from Hislop (2013, p. 21).

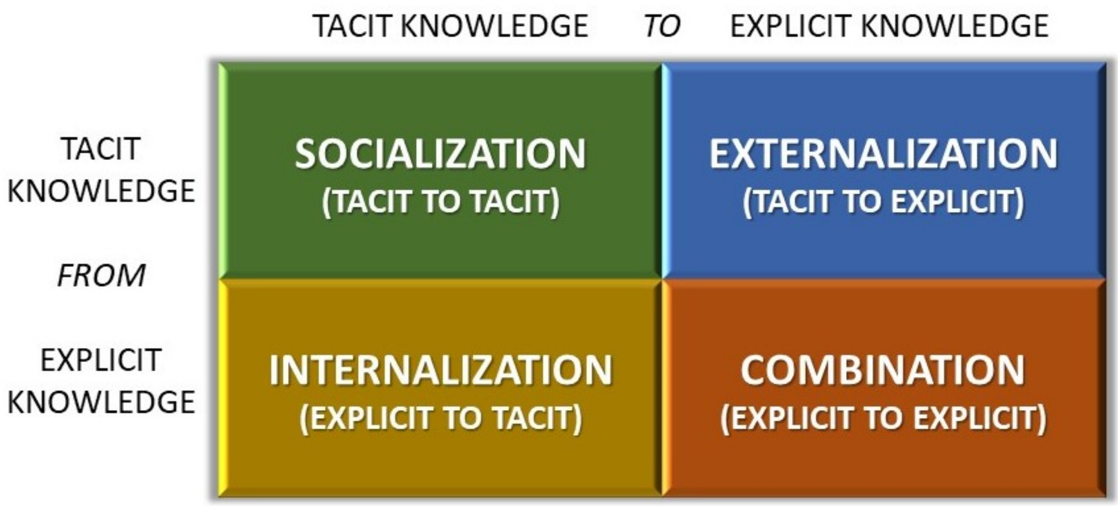
Tacit Knowledge	Explicit Knowledge
Inexpressible in a codifiable form	Codifiable
Subjective	Objective
Personal	Impersonal
Context-specific	Context independent
Difficult to share	Easy to share

However, the explicit knowledge repositories are not useful to anyone if they are not well connected to the user's tacit knowledge (Halonen & Laukkanen, 2008). Nor, tacit knowledge has no measurable benefit, unless it can be turned into a visible, usable or explicit form (Dalkir, 2011; Lin, 2007). It has also been understood in organizations that, unlike tangible assets, which decrease with their use, knowledge assets increase with use (Davenport and Prusak, 1998; Hislop, 2013). In particular, it does matter what kind of knowledge is shared (Blankenship, 2009). Previous research has shown that through tacit knowledge, professional knowledge is shared (Blankenship, 2009, Virtainlahti, 2009). Therefore, tacit knowledge is considered the most important form of knowledge in organizations (Virtainlahti, 2009).

SECI Model

In addition, in this thesis, it is essential to better understand how an individual's tacit knowledge can be shared and transformed into visible, explicit knowledge in an organization. Therefore, one central example of the distribution of knowledge from tacit and explicit knowledge to a so-called continuity of knowledge is illustrated by a SECI model (Nonaka & Takeuchi, 1995). According to Halonen and Laukkanen (2008), SECI is an abbreviation of the word's socialisation, externalization, combination, and internalization The SECI model is widely used to describe the knowledge creation process between people and groups (Halonen & Laukkanen, 2008). Originally, Nonaka introduced the SECI model in 1994, which was later supplemented with Takeuchi in 1995 (Nonaka & Takeuchi, 1995). The SECI model is presented in the Figure 3.

Figure 3. The SECI Model of Knowledge Dimensions. Developed from Nonaka and Takeuchi (1995, p. 62).



According to both Halonen and Laukkanen (2008), and Nonaka and Takeuchi (1995), the basic idea behind the SECI model is that new knowledge is created when individuals share and transfer their knowledge across the organization from individual to individual, from individual to group, from group to individual, or from group to group. In the process of *internalization* of information, a tacit declaration of knowledge is created. Learning by doing illustrates this step. As people work individually and collectively on the information contained in documents, instructions and so on, they supplement their own silent knowledge repository. In the *socialization* phase, tacit knowledge is shared through collective action, for example, by spending time together, living in the same context, sharing experiences and developing ideas together. In other words, intensive cooperation within the group reflects a strong exchange of information during the socialization phase. In the *externalization* phase, tacit knowledge is transformed into explicit information. It is often linked to the development of policies and systems. For example, reflection and sharing of mental models are typical functions of the knowledge outsourcing phase. In the *combination* phase, the expressed explicit information is transferred as is. This includes, for example, transforming the existing information into a more shareable format, such as part of a company knowledge base (Halonen & Laukkanen, 2008; Nonaka & Takeuchi, 1995).

2.1.4 Knowledge Types in Organizations

Due to the complex nature of knowledge and its sharing, researchers have sought to describe different forms of knowledge and to find ways to clarify the various ways of knowledge formation and to differentiate forms of knowledge in organizations. For example, Jousilahti et al. (2019) suggest that there are numerous different types of knowledge, such as scientific knowledge, expert knowledge, and experiential knowledge. Correspondingly, DeLong and Fahey (2000) propose that there are at least three different forms of knowledge in organizations that can be further divided to tacit and explicit knowledge. The three types of knowledge in organizations, are:

1. *Human knowledge*,
2. *Social knowledge,* and
3. *Structured knowledge*.

According to De Long and Fahey (2000), in this division of knowledge, both human knowledge and social knowledge can be referred to as tacit knowledge, and structured knowledge can be defined as explicit knowledge. Moreover, *human knowledge* can be considered the know-how of individuals. Similarly, *social knowledge* exists in people, but especially in their relationships, such as relationships between a group or a team. Thus, social knowledge can be described as a set of collective knowledge. *Structured knowledge*, in turn, exists independently of human knowers, since it is embedded in organization's structures such as systems, processes, tools, and routines (DeLong and Fahey, 2000).

Another way to look at forms of knowledge, is to examine it from the perspective of knowing (Blackler, 1995; Bukowitz & Williams, 1999). Blackler (1995) argues that the starting point of knowing is better and preferable for the organizations when considering the dimensions of knowledge. Moreover, he prefers to refer knowledge as knowing, since knowing is something people do, not what people have (Blackler, 1995). In the same vein, Bukowitz and Williams (1999) believes that approach of knowing may be more useful to the organizations, compared to the typical distinction of tacit versus explicit knowledge.

According to Blackler (1995), it is important to take into account, that different types of organizations need different kinds of knowledge. Therefore, Blackler (1995) identifies five different categories of knowledge, which are:

1) *Embodied*, which is acquired by doing,
2) *Embedded*, meaning organizational routines,
3) *Embrained*, such as conceptual skills and abilities,
4) *Encultured*, which is acquired though socialization, and
5) *Encoded*, such as signs and symbols.

The growing importance of knowledge work has led to an increasing emphasis on knowledge in the brain, dialogue and symbols, which are, in the terminology used in this context, *embraced*, *encultured* and *encoded* knowledge. Respectively, the importance of relying on the knowledge located in bodies and routines, which are *embodied* and *embedded*, is diminishing (Blackler, 1995).

Consequently, Bukowitz and Williams (1999) argue that the fact that an individual does not share knowledge often has much deeper reasons than, for example, lack of time. From their point of view, knowledge can be divided into two different definitions, which are:

1) *Known knowledge*, when the individual knows she or he knows, and
2) *Unknown knowledge*, when the individual does not know she or he knows, since it has blended into her or his way of working.

However, knowledge sharing applies to both of these types. In other words, that is done either by helping the individuals to share their knowledge they know or by helping the individuals to articulate and share what they do not know they know (Bukowitz & Williams, 1999).

In summary, knowledge can be sorted in many ways and, as discussed above, its formation and perceptions of it vary. For this thesis, it is important to consider different definitions of knowledge in order to gain an understanding of how it can be better shared and utilized in small and medium-sized enterprises (SMEs). For clarity, in this thesis, organization and company are used as synonyms for SME and vice versa. However, according to many researchers, knowledge sharing is not straightforward action and, in addition, tacit knowledge and know-how requires more effort to disseminate than explicit knowledge (Foss et al., 2010; Osterloh & Frey, 2000; Seergeva & Andreeva, 2016). Therefore, the concept of knowledge sharing is further explored in the following section.

2.2 Knowledge Sharing

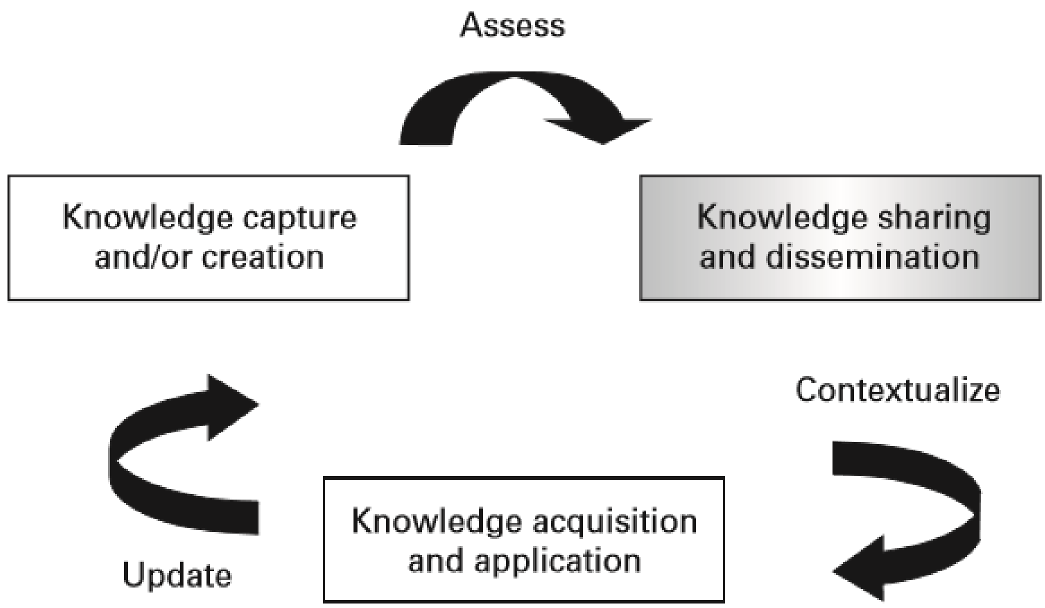
2.2.1 Knowledge Sharing as a Concept

In its simplest form, knowledge sharing can be defined as transferring or sharing individual's or organization's tacit or explicit knowledge to another human or company database (Seergeva & Andreeva, 2016; Szulanski, 1996). As discussed more broadly in section 2.1.3, tacit and explicit knowledge can be; for example, data, information, or individual's know-how, skills, experiences and feelings (Bukowitz & Williams, 1999; Dalkir, 2011; Virtainlahti, 2009). It is observed that knowledge is human in nature, and its commitment to individuals makes its management substantially more difficult than its management of lower levels of knowledge, data and information (Laihonen et al. 2013). Furthermore, communication interaction and knowledge sharing in the work environment is initiated to perform and solve work tasks (Widén-Wuff, 2007).

Moreover, knowledge sharing is the cornerstone of knowledge creation, because without knowledge sharing, it is almost impossible to create knowledge (Pinho et al., 2012). According to the knowledge-based view, which is used in this study, as knowledge is transferred or shared, it always changes, too (Szulanski, 1996). Hence, knowledge is constantly re-evaluated in interpersonal interactions and, thus, the change in knowledge is in a way included for all forms of knowledge use and sharing (Szulanski, 1996; Widén-Wuff, 2007). Useless information and knowledge should not be collected and shared, but the necessary knowledge should be shared as efficiently as possible (Laihonen et al., 2013). According to Jantunen (2005), it is important to remember that knowledge becomes obsolete and, therefore organizations must monitor and update their knowledge base effectively. This often also means that the organization must internalize the new knowledge produced, and then integrate new insights into the existing knowledge base (Jantunen, 2005). This, of course requires skilled personnel and holistic understanding of what is relevant information and what is not (Laihonen, et al., 2013).

Typically, knowledge sharing occurs throughout the organization in both random and planned situations (Ghobadi & Mathiassen, 2014). These situations often involve a place, space, or a system, where employees in an organization meet, either face to face or electronically (Dalkir, 2011; Ghobadi & Mathiassen, 2014). The movement of knowledge and the important role of knowledge sharing and dissemination in the formation and application of knowledge is illustrated in Figure 4.

Figure 4. The Integrated KM Cycle, in which Knowledge Sharing and Dissemination Play a Key Role. Developed from Dalkir (2011, p. 142).



Knowledge sharing can improve all levels of an organization’s operations, since its sharing and exchanging enhances an organization’s learning competence and ability to achieve personal and organizational goals (Lin, 2007). Moreover, the studies in the field have presented that knowledge sharing increases both performance and innovativeness of an organization and, in particular, plays a key role in ensuring the continuity and success of an organization (Dalkir, 2011; Janus, 2016; Kuitunen, 2020; Laihonen et al., 2013;

Virtainlahti, 2009). However, unfortunately, the management of an organization often does not understand what actions are required to share knowledge in practice within the organization. Typically, companies collect large amounts of data, information and knowledge with great effort and money, but cannot or do not know how to utilize it (Dalkir, 2011; Janus, 2016; Sydänmaanlakka, 2012).

Consequently, there is a growing need in modern organizations to understand what actions are needed to promote the exchange and sharing of knowledge (Davenport & Prusak, 1998; Janus, 2016; Solovjew-Wartiovaara, 2019). This also applies to the use of terms related to knowledge sharing, such as knowledge transfer and exchange, which are often misused or misunderstood to mean the same as knowledge sharing. However, in order to make the knowledge sharing in an SME as efficient and understandable as possible, it is necessary to clarify the differences between the terms of knowledge sharing, transfer and exchange, and are briefly clarified next in more detail.

2.2.2 The Relationship Between Knowledge Transfer, Sharing, and Exchange

According to Janus (2016), ***knowledge transfer*** means the transfer of existing knowledge as such to another location or to another person. Typically, one-way knowledge sharing often refers to the transfer of data. For example, the data is transferred from one database to another, from one person to database, or from one person to person, but without their actual discussion or learning from another (Janus, 2016).

Knowledge exchange and ***knowledge sharing*** stands for the mutual sharing of knowledge that involves the idea of learning from each other (Janus, 2016) which ideally leads to relevant knowledge transfer between individuals (Henttonen et al., 2016). Therefore, knowledge sharing, and knowledge exchange are understood to be two-way or multi-directional (Janus, 2016). Similarly, according to Lin (2007), the difference between knowledge sharing and knowledge exchange is that knowledge exchange is generally expected to be beneficial, while knowledge sharing does not directly include benefit inclusion.

All in all, it is known that a good work community is created as a result of good communication (Juholin, 2009) and effective interaction is the starting point for good knowledge management (Väisänen, 2019) and a prerequisite for knowledge sharing, transfer and exchange (Lin, 2007; Sydänmaanlakka, 2012; Wendelin, 2013). Knowledge sharing is rarely a separate function in an organization, but it is intertwined with other knowledge processes including knowledge flow, transfer, learning, distributed collaboration and knowledge creation (Foss et al., 2010). Hence, different terms are used to describe the movement of knowledge in different contexts (Lin, 2007; Janus, 2016). In addition, according to Solovjew-Vartiovaara (2019), an effective decision making is best achieved in organizations when the use of knowledge is designed to fit and be appropriate to the situation. This means that the ways in which knowledge is used and shared must be compatible with the nature of the phenomena or problems being addressed (Solovjew-Vartiovaara, 2019). For this reason, knowledge sharing, and knowledge management must be at the heart of the organization (Dalkir, 2011) and the next section deals with the concept of knowledge management.

2.3 Management of Knowledge Sharing

2.3.1 Knowledge Management as a Concept

Owing to the multidisciplinary nature of knowledge, which is introduced in many ways in previous section 2.1., there is no common and unambiguous definition of knowledge management, either (Dalkir, 2011; Hellström, Ikäheimo, Hakapää, Lehtomäki & Saari, 2019). Therefore, as knowledge management can be interpreted in different contexts and perspectives as a broad and complex phenomenon and, thus, its content is more important than the term (Laihonen et al., 2013). Although knowledge management is a relatively recent concept, it has been studied for a long time. In recent decades, the emphasis in the literature has been specifically on managing knowledge and knowledge sharing, in people-to-people interactions in organizations and between its stakeholders (Nonaka, 2007; Sydänmaanlakka, 2012). In this study, knowledge management is understood as an entirety that examines the activities of organizations and the phenomena related to management and development from the perspective of knowledge-related resources, processes, and technologies (Laihonen et al., 2013), which also enables successful decision making through knowledge (Solovjew-Wartiovaara, 2019).

From an organizational perspective, knowledge management is associated with knowledge acquisition, creation, coding and sharing (Nonaka & Takeuchi, 1995). Knowledge management seeks to control and establish organizations operations for the best possible outcome, and it is argued that effective knowledge management may lift the organization to the horizon of success (Asrar-ul-Haq & Answar, 2016; Dalkir, 2011; Hislop, 2013; Sydänmaanlakka, 2012). Additionally, knowledge management aims to apply and add knowledge to the decision making situations (Sydänmaalakka, 2012; Solovjew-Vartiovaara, 2019). Therefore, it is important to distinguish between the aims of knowledge management and management through knowledge, as the term knowledge management refers to both the management of knowledge resources. For example, learning of an organization and creation of new knowledge, and also to the management through knowledge such as the ways in which organizational knowledge is processed and utilized in the management of an organization’s operations (Laihonen et al., 2013).

If an organization does not have an explicit knowledge management policy, knowledge sharing practices is often difficult, unclear and incidental (Rossignoli, 2017). Therefore, it is imperative that the organization’s knowledge management strategy is integrated and managed from its business strategy (Hislop, 2013; Mitronen & Raikaslehto, 2019; Vuorinen, 2013). Additionally, due to the multifacial nature of knowledge management, organization needs to develop a workable knowledge sharing strategy that is based on the goals of the company (Bukowitz & Williams, 1999). In addition, when an organization learns, remembers and acts based on the best available information, knowledge, and know-how, it can be said that organization has embraced knowledge management at its core function (Dalkir, 2011).

Leadership and Management

The concepts of leadership and management have practical differences, but are similar in many ways as leadership and management are two distinctive and complementary systems of action (Kotter, 1990). In the words, according to Kotter (1990, p. 103), *“a good management controls the complexity, where an effective leadership produces useful change”*. This means that ***management*** is responsible for organizing and staffing the practices and procedures of organizations while, by contrast, ***leadership*** is more about setting a direction and developing a vision of the company’s future. Typically, management ensures the day-to-day monitoring and problem solving of the organization and, thus, this research emphasizes the management perspective (Kotter, 1990).

However, this study does not focus on the differences of leadership and management in greater detail than it is necessary for the purposes of this study. For clarity, this study refers to the concept of management, even if discussing changes, methods, and strategies to achieve a vision for the future.

Knowledge Management Methods

Knowledge management has been assessed and measured through a number of different approaches and metrics in the literature and arguably there are many ways to manage knowledge in the organizations. As mentioned before in section 2.1., knowledge is invisible, non-touchable and, thus, difficult to measure. First and foremost, it is impossible to lead anything one does not know anything about and, thus, modern management must be knowledge-based (Rytilä, 2011). No leader is that talented to lead workforce without knowing and no worker is capable to do her or his work without the knowledge (Hislop, 2013). Over the years several studies have highlighted that organizations must understand the significance of knowledge as a resource for business management (Nonaka, 2007), as it has been noted that knowledge management is in the key role in developing the strategy to benefit the organization (Sydänmaanlakka, 2012).

According to both Laihonen et al. (2013) and Solovjew-Vartiovaara (2019), when choosing a model for the organizational knowledge management, there is no one-size-fits-all approach that suits in every situation. Instead, the choice of the model that best suits the situation depends on whether new solutions are sought, old conflicts are resolved, or whether the aim is to map a common picture of the existing situation. Thus, knowledge management models can and usually are used simultaneously for several different functions of an organization. Due to the immateriality of knowledge, different levels of knowledge are difficult to manage and control and typically, many of the methods are used simultaneously (Laihonen et al. 2013; Solovjew-Vartiovaara, 2019).

Correspondingly, Ruggles (1999) is convinced that through more deliberate management would make it possible to utilize the existing knowledge in the organization to a higher level. She continues, that in order to do so, it is necessary to understand what that, knowledge, is that actually gets managed in organization (Ruggles, 1999). Therefore, Ruggles (1999) identifies eight factors related to knowledge development that should be considered in an organization, when defining knowledge management, which are as follows:

1) Creating knowledge,
2) Sources of external knowledge,
3) Use of knowledge in decision making,
4) Integrating knowledge into business processes and products and services,
5) Presentation of knowledge in documents and databases,
6) Supporting knowledge through culture and incentives,
7) Transferring existing knowledge to others in the organization, and
8) Measuring the value and benefits of knowledge and supervisor evaluation (Ruggles, 1999, p. 81)

According to Sydänmaanlakka (2012), the starting point for knowledge management is *an analysis of the current situation of the organization*. An extensive analysis is needed of where the key elements, level of performance, know-how and knowledge of the organization are clarified. Key issues can include questions such as:

- Is there enough knowledge?
- Is the knowledge created effectively?
- Is there a sufficient amount of external information?
- Is there an ability to store data, information and knowledge?
- How well knowledge is shared and transferred?
- How is the knowledge applied?
- Is there the ability to re-use the existing knowledge within the organization? (Sydänmaanlakka, 2012).

Another way to map the needs for knowledge management practices is to use the knowledge auditing (Daghfous, Ahmad, Angell, 2013). According to Serrat (2009) knowledge auditing has multiple purposes, but it can provide tangible evidence about the current state of an organization's knowledge. Hence, knowledge auditing can be used to obtain answers to important questions, such as what knowledge an organization needs, where that knowledge is, how it is being used, what problems and difficulties exist, and what improvements can be made. Typically, the query varies according to the needs of the organization and, for example, may include the following questions:

- What are an organization's knowledge needs?
- What tacit and explicit knowledge assets does it have and where are they?
- How does knowledge flow within the organization, formally and informally, and to and from clients and relevant organizations?
- How is that knowledge identified, created, stored, shared, and used?
- What obstacles are there to knowledge flows, e.g., to what extent do its people, business processes, and technology currently support or hamper the effective movement of knowledge?
- What gaps and duplications exist in the organization's knowledge? (Serrat, 2009).

How knowledge sharing can then be led is one of the key issues for any business and organizations. The research in the literature has shown that tacit knowledge involves more effort to share and, thus, may require more or, at least, different incentives to share than explicit knowledge (Foss et al., 2010). Moreover, employees' knowledge-sharing intentions vary, depending on whether the knowledge is tacit or explicit (Hau et al., 2013). In other words, sharing tacit knowledge might be less dependent on external incentives and is mainly driven by individuals' motivation (Osterloh & Frey, 2000; Seergeva & Andreeva, 2016).

Hislop (2013) defines that knowledge can be shared internally using either *push or a pull strategy*.

- In a *push-strategy*, knowledge is pushed to the employees through various methods, for example through storytelling, intranet, and newsletters.
- In a *pull-strategy*, employees search for the knowledge they need themselves. The knowledge, of course, can be anything, such as improving one's Excel-skills via YouTube-videos.

However, both strategies are utilized simultaneously in the organizations. Managers must decide which knowledge sharing strategy works best for them and, on which issue and, in general what are the most suitable mechanisms in place to optimize knowledge sharing (Hislop, 2013).

According to Davenport and Prusak (1998, p. 88), the answer to the question of how knowledge sharing can be developed to be more and more effective in the organization, is as follows: *"The short answer, and the best one, is: hire smart people and let them talk to one another. Unfortunately, the second part of this advice is the more difficult to put into practice".* Indeed, employees are in central role when talking about gaining, using and sharing knowledge in organization (Janus, 2016; Stary et al., 2008). Hence, effective knowledge sharing is challenging because employees cannot be forced to share their knowledge (Amayah, 2013) and, ultimately, employees themselves decide whether to share their knowledge (Peltonen & Ruohotie, 1987). By nature, knowledge is human, and its commitment to individuals makes its management much more difficult than managing data and information (Henttonen et al., 2016). In addition, it is hard to know who knows what, and what kind of or how relevant the knowledge is (Laihonen et al. 2013).

To conclude, there is an infinite number of factors to consider when deciding which method suits best for the knowledge management of an organization. The factors, such as structure, size, and cultural diversity of an organization are likely to have a significant impact on organization's effort to manage knowledge (Hislop, 2013). Correspondingly, the value of knowledge is realized when the information is utilized, that is, when the knowledge is used to guide activities at either the individual or the organizational level (Laihonen et al., 2013). It is further argued that an organization's agility is based on its knowledge management and the ability to change (Savolainen &Lehmuskorpi, 2017; Sydänmaanlakka, 2017). Therefore, knowledge management and, similarly, knowledge sharing as a one core operation of knowledge management, is important for organizations to better manage change (Savolainen &Lehmuskorpi, 2017). The next section describes change management in more detail.

2.3.2 Change Management

It is evident that we are living in the era of changes. Regardless of the decade, the momentum of change has never been greater than it is in the current business environment (Burnes, 2004; March, 1981; Savolainen & Lehmuskoski, 2017; Todnem, 2005; Vuorinen, 2013). As stated by Sydänmaanlakka (2012, p. 13) *"Continuous renewal of individuals, teams and companies is the only lasting competitive advantage".* More than 20 years ago, Burnes (1996) stated that the ability to manage change is recognized as a core organizational competence. Whether we like it or not, change occurs in all its forms and affects organizations in all areas (Burnes, 1996). In traditional fields in particular, the challenge is that many organizations have the illusion of being immune to or protected from change (Savolainen & Lehmuskoski, 2017). Therefore, organizations must learn how to cope with change, regardless of the industry they are in, since modern leadership is, in practice, management of change (Sydänmaanlakka, 2014; Todnem, 2005; Wendelin, 2013).

The challenge in change management is that renewals and change require the management of both current and future business simultaneously (Mitronen & Raikaslehto, 2019). Mitronen & Raikaslehto (2019) continues that a recent research around the topic revealed that almost all medium-sized companies have emphasized the importance of reform and future change. However, according to Burnes (2004), over 60 per cent of all change projects are considered to fail. This is explained by the fact that besides understanding the company's own processes, organizations need to be constantly aware of both the development of their competitors and the direct and indirect changes in the operating environment (Burnes, 2004). According to Mitronen and Raikaslehto (2019), predicting and forecasting the future is difficult. Therefore, today it is no longer possible to make a development plan, for example for five or even for three years, and then stubbornly stick to it (Mitronen & Raikaslehto, 2019).

Changed Role of Management and Employees

According to March (1981) no magic tricks are needed to succeed and cope with change. Instead, it requires ordinary people to do ordinary things in the most competent way (March, 1981). Similarly, according to Sydänmaanlakka (2017), change must be brought into the organization, embedded in policies and put into practice. However, organizational change is often a longer process than first thought (Sydänmaanlakka, 2017). Permanent change is implemented by taking into account both the people and the business, so both emotions and causes must to be considered at the same time (Henttonen et al., 2016; Juholin, 2009; Wendelin, 2013). More specifically, there are many types of resistance of change, but they all can be tackled by solid and exemplary leadership and, thus, by influencing others (Wendelin, 2013). Therefore, it is particularly important that the management is committed to change (Sydänmaanlakka, 2014). As stated by Savolainen and Lehmuskoski (2017), one of the most important things in the turmoil of organizational change is that the roles and responsibilities of the company are clear. Hence, the organization must decide who is responsible for managing knowledge (Savolainen & Lehmuskoski, 2017).

In particular in a state of change, is important to speak out loud even difficult things and communicate openly about what is happening and when. In today's organization, people want to know what is going on (Järvinen, 2019). In general, managing change is not easy and communication plays a major role in change (Juholin, 2009; Sydänmaanlakka, 2012). Anything that has not been yet communicated is also a message from something (Kuitunen, 2020; Wendelin, 2013). In the midst of change, typically, people desire for three things, such as:

- *Predictability,*
  information about where we are going and where we are heading,
- *Observing one's own abilities,*
  knowing what different qualities will be required in the future, and
- *Concrete tools,*
  information and knowledge on how to succeed and how to reach the new goals (Wendelin, 2013).

Both knowledge management and change management has a significant role in creating a work environment that encourages people to share knowledge, and integrate knowledge within the organization and, thus, to produce useful knowledge that can be used within the organization (Pinho et al., 2012). However, collaboration is a must in today's contemporary organization. That means that the role of leadership is changed and can be seen as a shared task along every participant of a company (Kuitunen, 2020; Sydänmaanlakka, 2017). If both parties are willing to work together, there will be no such confrontation between 'we' and 'they' (Kuitunen, 2020). According to Järvinen (2019), the leader has a lot more expectations than before and nowadays one must be a versatile leader. In addition, the distance between the supervisor and the employees has changed. Nowadays, the managerial task is no longer related to position of the status but is much more equal and diverse as it was, for example, in the 1980s (Järvinen, 2019).

Moreover, it can be said that in contemporary organizations, the ability to organize work and the flow of knowledge is part of an individual's professional competence (Hellsten, 1998). Furthermore, the employees are expected to be able to prioritize and organize their own tasks, and accordingly, managers and supervisors are expected to be able to make effective use of the work input of individuals (Silvennoinen & Kauppinen, 2006). In this context one can also speak of an individual's so-called self-management skills and the individual's own role and responsibility as a distributor of knowledge (Hellsten, 1998; Sydänmaanlakka, 2017; Wendelin, 2017). However, more specific discussion of how to improve employees' knowledge sharing skills and practices in organizations, whether it is tacit or explicit knowledge, is presented in section 2.1.3.

Conversely, according to Järvinen (2019), many supervisors are afraid of their role as authority users and even form close relationships with employees, which in turn can create conflicts in the work community. In other words, a certain distance is needed, but finding the right distance to employees is another challenge in modern management and leadership (Järvinen, 2019). The organizational design, the way the tasks are divided and coordinated, affects by creating or reducing opportunities for knowledge sharing (Seergeva & Andreeva, 2016). Therefore, the best way to avoid collisions and overlaps is to have clear processes and rules, that are explicitly discussed throughout the organization (Järvinen, 2019). According to Kuitunen (2020), with clear responsibilities and roles for management and employees, ease and fluidity are achieved. Moreover, employees have their own responsibility to collectively take care of their own attitudes and thus improve the work community (Kuitunen, 2020).

Furthermore, adaptiveness to organizational change can and should be managed (March, 1981). Therefore, in particular, organizations need to pay attention to their employees in organizational changes, as they are affected by the changes and, after the changes, they are also the actual end-users with the reforms (Razmerita et. al., 2016). For example, Maslow's hierarchy of needs or Maslow to Aldefer's the three needs of an individual can also help to better understand people's thoughts and action in a changing situation (Barachini, 2009). Knowledge and the flow of knowledge is a key factor in carrying out a successful change project, and the importance of communication and knowledge sharing cannot be overemphasized (Sydänmaanlakka, 2014; Wendelin, 2013). Indeed, according to Juholin (2009), people are committed to change through an open and honest communication. For instance, communication affects staff turnover (Wendelin, 2013).

Hence, correct, up-to-date knowledge and knowledge sharing processes are central in change management processes (Juholin, 2009; Wendelin, 2013).

Typically, people want things around them to change but they either do not know how to change themselves, or simply do not want to change themselves (Savolainen & Lehmuskoski, 2017). According to Hellsten (1998), people only change when they are forced to change. This is because change is a new unknown area and it scares and potentially hurts. (Hellsten, 1998) Even though people accept change, they want it to happen on their own terms (Wendelin, 2013). According to Piderit (2000), from the viewpoint of the organization, resistance of change is easily seen as negative rebellion. However, resisting change and expressing ambivalence can create a dialogue and, thus, encourage for an ongoing discussion. This kind of discussion can be fruitful for organizational development and, therefore, resisting change is also valuable in identifying potential areas for improvement (Piderit, 2000).

In conclusion, managing change is not an easy task in today's contemporary organization as managing existing business and renewal processes at the same time requires new kinds of talents from both the leaders and employees (Mitronen & Raikaslehto, 2019; Pirkkalainen et al., 2017; Sydänmaanlakka, 2017). Therefore, multidirectional communication, knowledge sharing, collaboration, and taking people, their emotions and needs into account are in a key position in change management (Juholin, 2009; Wendelin, 2013; Henttonen et al., 2016).

3 INTERNAL KNOWLEDGE SHARING PRACTICES

Factors influencing the flow of knowledge have been studied in different studies and organizations. However, only a few recent studies have combined both the literature on knowledge sharing practises and mapping the knowledge sharing practices within a real-life organization context (Widén, 2017). Nevertheless, as stated in previous Chapter 2, it is difficult for organizations to enable effective knowledge sharing practices among employees owing to human factors, institutional complexities, and the tacit nature of knowledge itself (Janus, 2016; Laihonen et al., 2013; Sydänmaanlakka, 2012; Wang & Hou; 2015). However, understanding the knowledge sharing behaviors of real-life organizations and the factors that influence the knowledge sharing practices can provide the most value for the organizations (Kuttner et al., 2013; Razmerita et al., 2016).

This chapter focuses on the key issues of this study and sheds light on the theoretical background of the organizational and individual factors that influence organizations' internal communication and knowledge sharing practices. Although organization's external actions and knowledge sharing are also important, this study emphasizes only the aspects of the organization's internal knowledge sharing. The following sections first describe the organizational factors and later the individual factors of the internal knowledge sharing practices of the organization. The following chapter answers the second and third supportive research questions, *'What organizational and individual factors influence the internal knowledge sharing practices?'* and *'How can internal knowledge sharing practices and knowledge management be developed within a SME?*'.

3.1 Organizational Factors

Prior research has shown that knowledge sharing practices must be supported by the organization (Janus, 2016; Laihonen et al., 2013; Sydänmaanlakka, 2012; Widén, 2017), as the organizational factors that either enables or hinders knowledge transfer within the organization (Asrar-ul-Haq & Anwar, 2016).) Besides the important role of both knowledge management and change management that are presented in the previous Chapter 2, the organizational culture, norms, values, and incentives of the organization have a significant impact on the organizational knowledge sharing factors. (Wendelin, 2013; Asrar-ul-Haq and Anwar, 2016). Moreover, the latest technology is needed to support functioning knowledge sharing and its management (Hislop, 2013; Janus, 2016; Pirkkalainen et al., 2017). The digitalization and the IT architecture of an organization needs to be designed in a holistic way to enable knowledge to flow seamlessly across applications and, thus, between people (Razmerita et al., 2016; Sydänmaanlakka, 2012; Vuori, Helander & Okkonen, 2018). The next section addresses these issues in more detail.

3.1.1 Organizational Culture, Atmosphere, and Values

From the knowledge management perspective, creating an organizational culture and atmosphere that support knowledge sharing is one of the key enablers for knowledge sharing in an organization (Järvinen, 2019; Wendelin, 2013). In addition, values are an important part of a company's internal and external communication (Sydänmaanlakka 2012; Wendelin, 2013). Conversely, the own and shared values of the members of an organization affect the atmosphere of the work environment and, thus, affect the organizational culture (Peltonen & Ruohotie, 1987). Next, the concepts of organizational culture, atmosphere, and values are defined.

Definition of Organizational Culture

Organizational culture is a very broad concept, as it includes a set of shared values, attitudes, beliefs, goals, habits, and practices, and it can be seen as a system of seeking of meanings and sharing experiences (Wendelin, 2013). Organizational culture can also be considered as the intellectual structure of the work community, which is expressed through values, customs, norms, products and services, symbols, or in language used in an organization (Peltonen & Ruohotie, 1987). Organizational culture extends to all aspects of the organization (Janus, 2016), and organizational culture also affects directly to the productivity of the work community (Wendelin, 2013).

Organizational culture plays a crucial role in the change and in knowledge management and the organizational culture should be based on the organization's strategy (Kuitunen, 2020; Vuorinen, 2013; Wendelin, 2013). *'Culture eats strategy for breakfast'* is a general saying that emphasizes the great role of culture in an organization that either supports or limits the implementation of a strategy, even the best strategy bends in front of the organizational culture (Kuitunen, 2020 ; Mitronen & Raikaslehto, 2019; Wendelin, 2013).

According to Kuitunen (2020), if the culture is in accordance with the organization's strategy, there should not be a need to manage the culture. When developing a strategy, one should consider whether this is in line with the company culture and vice versa (Kuitunen, 2020; Mitronen & Raikaslehto, 2019).

Definition of Atmosphere

Organizational culture also encompasses the concept of ***atmosphere***, which is in a way an intangible part of the work environment and its culture (Sydänmaanlakka, 2012). According to Järvinen (2019), cultural formation of an organization is often a subconscious process that arises already in the early days of the workplace. Hence, even though the people in an organization change, the organizational culture typically remains the same (Järvinen, 2019). Culture can be thought the driving force 'below the surface' behind the company and its employees and other stakeholders, while the atmosphere interacts with the culture, and is a more visible and more easily changing part of the organization's operations (Sydänmaanlakka, 2012; Wendelin, 2013). Correspondingly, organizational culture includes what is experienced and said both officially and unofficially (Kuitunen, 2020). Therefore, above all, organizational culture is everything what is not been said (Kuitunen, 2020; Wendelin, 2013).

Definition of Values

In addition, the ***values*** of an organization are the main guiding principles of the organization's operations, which are often culturally bound (Razmerita et al., 2016; Wang & Hou, 2015; Wendelin, 2013). Furthermore, the organizational values guide human behavior (Peltonen & Ruohotie, 1987) and, thus, the values guide what to do and how to behave and people more likely behave in a way that is beneficial to them, that is, towards the things valued by the organization (Mitronen & Raikaslehto, 2019; Wang & Hou, 2015). Additionally, the managers' behavior and actions influence to the company values and norms. Hence, if the manager behaves and acts differently as the organization's values, then the manager's behavior becomes the new norm in the organizational culture (Mitronen & Raikaslehto, 2019).

Improving Organizational Culture and Atmosphere

However, organization's culture can be managed and changed (Järvinen, 2019; Mitronen & Raikaslehto, 2019; Wendelin, 2013). Organizational culture defines the value of knowledge (Okkonen et al., 2018) and it manifests itself through the behavior of the people in the organization (Asrar-ul-Haq & Anwar, 2016). Correspondingly, an efficient organization is characterized by a performance-oriented and people-centered atmosphere (Peltonen & Ruohotie, 1987). Järvinen (2019) states that the two important things in building a successful organizational culture are an interactive dialogue and getting people involved in building the culture. Transparency in all actions also plays an important role in all performance-oriented and people-centered companies (Peltonen & Ruohotie, 1987).

According to Peltonen and Ruohotie (1987), a performance-driven atmosphere influences work performance and productivity, in which managers play a crucial role. What matters is the extent to which subordinates are able to participate and influence the workplace environment, how they identify with their work, and how they are aware of their responsibilities in achieving the goals of the organization or the unit (Peltonen & Ruohotie, 1987). According to both Janus (2016) and Wendelin (2013), the organization's culture of sharing knowledge starts from the top, but it is common for leaders to also need coaching to share knowledge. Management must promote the value of knowledge sharing by modelling best-practice behavior. As employees discover how the managers in the organization encourage, recognize, and reward knowledge sharing, also their attitude toward knowledge sharing practices improves. Additionally, in this way, employees are more likely to follow the example of the leaders (Janus, 2016; Wendelin, 2013).

Thus, at first, a truthful mapping of the current situation helps to identify the problem areas and, second, practical changes and actions are needed (Mitronen & Raikaslehto, 2019; Wendelin, 2013). According to Wendelin (2013), by identifying the so-called intellectual cultural spaces of the work community, the challenges of organizational culture and its productivity can be better managed. The different work communities with different organizational cultures can be classified, for example, as follows:

- In *an anemic culture*, the leadership has lost control and their courage to change things. In this kind of culture knowledge does not flow, there are no clear goals or at least lack of communication and discussion about them.
- In *a club-style culture*, things look good outward, but they are not. For example, a feedback culture and the mutual trust should improve. In this kind of culture, the problems are not directly addressed and there is a lot of room for improvement in

transparency. Thus, such a culture easily blinds to its built-in shell and the issues are not really developed.

- In a *culture of performance pressure*, the feeling of rush and a constant result pressure plays a big role. Employees are not satisfied as they are feeling lack of appreciation and have no time to really recover or energy to innovate anything new.
- In *a culture of productivity, efficiency and job satisfaction,* people are valued from their resources, and simultaneously there is both enough communication in management and focus on performance. In this kind of culture, it is understood that feedback is the only opportunity for growth, and to enable it, trust is maintained among staff. Moreover, the functionality of the processes does not determine the culture, but that the most significant impact on the success of the organizational culture is its people and their well-being (Wendelin, 2013).

The organizational culture that encourages the interactivity of tacit knowledge also enables continuous renewal of the organization (Sydänmaanlakka, 2012). The flow of knowledge within an organization from the individual to the community and through its levels is critical to the organizational culture because it enables the creation of new meanings and innovations (Janus, 2016; Nonaka & Takeuchi, 1995). According to Gruber and Duxbury (2000) as cited in Dalkir (2011), suggest that an environment that truly supports the sharing of knowledge has payed attention to the following characteristics:

- Reward structure, with the recognition for knowledge sharing with peers,
- Openness and transparency, with no hidden agendas,
- Sharing is supported, so that communication and coordination happens between groups,
- Trust, as the organization has shared objectives, and
- Top management support, meaning upward and downward communication (Gruber and Duxbury, 2000, as cited in Dalkir, 2011).

From an organizational development perspective, it is essential to understand that sustainable change is better achieved by focusing on cultural norms and values, rather than on the factors that temporarily shape the work environment and its atmosphere (Mitronen & Raikaslehto, 2019). However, a positive atmosphere for knowledge sharing and, thus, can contribute and create a basis for cultural change (Janus, 2016). Furthermore, an open and transparent culture increases the effectiveness of knowledge sharing. Improving the utilization of knowledge offers a real competitive advantage, especially for companies operating in rapidly changing markets (Sydänmaanlakka, 2012). Similarly, according to Kuitunen (2020), an organizational culture is what you get the people to think, and it is not directly measurable, although it is often thought so.

As discussed in the section 2.3.1., knowledge management aims to create an environment that encourages people to share knowledge and learn by harmonizing goals and combining knowledge within and across the organization, and to produce information and knowledge that is useful to the organization (Foss et al., 2010; Hislop, 2013; Janus, 2016; Widén-Wuff, 2007). As stated by Wendelin (2013), giving and receiving feedback is important and it should be an integral part of the day-to-day dialogue of the work community. According to Sydänmaanlakka (2012), nowadays it is a trend to seek and receive feedback from as many directions as possible. A so-called 360-degree feedback has become more common, which at the individual level means that feedback is gained from the supervisor, subordinates, colleagues and possibly other stakeholders. At the company level, it is typical to regularly monitor at least the development of the customer satisfaction and the employees' job satisfaction (Sydänmaanlakka, 2012).

Implementing feedback systems requires a certain feedback culture and an operating model with associated values (Wendelin, 2013). Therefore, a functioning feedback culture is made up of factors such as openness, trust, respect for the individual, abundant communication, tolerance of mistakes, good fellowship, support for others, and emphasis on continuous learning (Kuitunen, 2020; Sydänmaanlakka, 2012). Moreover, gaining feedback is the best way to increase organizational knowledge and so-called social capital (Amayah, 2013; Widén-Wuff, 2007) The feedback system will not work without management's support and the management must ensure that employees have time and space to give feedback as well as report inappropriateness (Kuitunen, 2020). In addition, the management of a company must also be prepared to receive critical feedback (Järvinen, 2019).

In summary, an organizational culture is more powerful than the organization's strategy, as the culture is a crucial part of the community success story and, thus, it determines what is important (Mitronen & Raikaslehto, 2019; Wendelin, 2013). Moreover, the organizational culture has direct impact on the organization's atmosphere (Järvinen, 2019), which in return has a direct impact on employees' knowledge sharing behavior (Amayah, 2013; Wang & Hau, 2015) and on individual's work motivation (Okkonen et al., 2018; Peltonen & Ruohotie, 1987). Knowledge sharing, and communication plays a major role in an organizational culture, and organizational values are an important part of the organizational culture (Mitronen & Raikaslehto, 2019). All development starts with communication and the flow of knowledge (Juholin, 2009). It is the top management's and superior's responsibility to change culture, act consistently, and besides creating rules and models, to be an example for others (Sydänmaanlakka, 2012; Järvinen, 2019). In addition, the tools that are used to control and accelerate the knowledge flows, must suit the organization (Hislop, 2013). Therefore, next the role of digitalization and technology in organization's knowledge sharing practices are clarified.

3.1.2 Technology and Digitalization

According to many authors (e.g. (Hislop, 2013; Janus, 2016; Kuettner et al, 2013; Razmerita et al., 2016; Vuori et al., 2019), ***information and communication technologies (ICTs)*** have always played a prominent role in knowledge management processes and research. The significant role of ICTs is due to the following two reasons:

1. First, as ICT became more widespread, there was a general optimism about how much organizational knowledge could be codified, stored in, and distributed through ICTs.
2. Second, it was thought that simply implementing a relevant ICT system would lead to successful management of knowledge.

Obviously, over time, both assumptions have been questioned and challenged (Hislop, 2013).

Moreover, there is a lot of discussion about digitalization and how important it is for organizations to go digital (Savolainen & Lehmuskorpi, 2017). The growth of data, combined with the development of data analytics and artificial intelligence, creates hope for increasingly agile operating methods and services tailored for individual needs (Hellström et al., 2019; Jousilahti et al., 2019). However, it is not worth focusing solely on these issues, but it is important to explore how digital tools and technologies can improve organizational performance (Hellström et al., 2019). It seems that the organizations have forgotten what digitalization really is (Savolainen & Lehmuskoski, 2017).

Technology is a collective term for a set of technologies in a particular field or in a company (Vuori et al., 2019). ***Digitalization*** means the technological possibilities by which better performance in organizations may be achieved (Savolainen & Lehmuskorpi, 2017). In terms of the company productivity, technology is connected to self-efficacy, as the ability to use or utilize technology has a great impact to productivity (Vuori et al., 2019). Change management is one very important part of any digital transformation in organization (Savolainen & Lehmuskoski, 2017). Other authors agree the importance of change management. For example, both Kuettner et al. (2013) and Razmerita et al. (2016) establish that behavioral change and change management is required for successful implementation of knowledge sharing practices through new systems. Furthermore, besides management support, training and reward systems, guidelines for contributions and an assigned responsible person is needed when implementing new technologies (Razmerita et al., 2016).

However, as it has been shown many times, the new information technologies are not the answer to more efficient management of information and knowledge (Janus, 2016; Savolainen & Lehmuskoski, 2017). Indeed, existing IT solutions enable efficient data, information and knowledge collection, storage, and processing (Janus, 2016), but the adoption of technologies or new practices is relatively poor, if the organization culture and management does not support positive attitude toward the new tools and practices (Hislop, 2013; Widén, 2017). Correspondingly, Kuttner et al. (2013) investigated the factors that influence in organizations especially, when implementing new technologies. They found that major categories that affect were:

- Prerequisites, such as management and its involvement and support, open minded culture,
- Measures, such as implementation strategy, user training, and regulations, and
- Implications, such as user acceptance, design of processes and access management, and individual’s benefits (Kuttner et al., 2013).

Knowledge sharing involves the exploitation of both personal and collective information and can be significantly facilitated by the introduction of organizational technology platforms (Razmerita et al. 2016). The rise of social software has increased the company's rapid adoption of collaboration technologies in organizations. However, the implementing of new technology requires always change and, unfortunately also often challenges (Kuettner et al. 2013). It is obvious that no information is shared in an organization, if there is no possibility to do so (Sydänmaanlakka, 2017). Employees need to have the ability to participate in knowledge sharing discussions and management must provide the right tools and framework for knowledge sharing discussions (Dalkir, 2011; Davenport & Prusak, 1998; Janus, 2016). According to Hislop (2013) two main conclusions can be drawn from ICT-enabled knowledge management initiatives.

1) First, simply putting an ICT-based knowledge management system in place is not in and of itself going to make the people utilize it.
2) Second, the success of all knowledge management initiatives, whether they utilize ICTs or not, involves effectively taking account of the socio-cultural factors which influence people's willingness to share knowledge, such as conflict, trust, time or concerns about loss of status (Hislop, 2013).

On the other hand, according to Pirkkalainen et al. (2017), today the ever-increasing amount of technological systems has increased tiredness or even fatigue or exhaustion towards new technological systems. This is a well-known phenomenon in today's organizations, regardless of job description. In other words, the constant connectivity and "always-on" mentality affect personal achievement and performance negatively, further causing also negative emotions (Pirkkalainen et al., 2017). This has increased the importance of the role of education in companies (Razmerita et al., 2016). The ability to take others' perspective and knowledge into account is been identified as a key prerequisite in development of information systems (Laihonen et al., 2013). In addition, guidelines for reward systems in organizations should exist (Razmerita et al., 2016).

In a summary, to run and manage organizational processes, organizations need to operate with many different information systems that generate huge volumes of varied data. Hence, traditional business intelligence and database tools are rarely suitable for big data adoption (Burmeister et al., 2018). Additionally, geographical dispersed teams are becoming more and more common and technology and digitalization enables interpersonal communication and collaboration (Hislop, 2013). In addition, besides understanding the business and its management, there is also a growing need to understand the information and communication technologies needed for management and the role of knowledge in the operations of organizations (Laihonen et al., 2013). Indisputably, the technology plays a prominent role in knowledge sharing and in knowledge management processes, and when selecting the technology solutions, the organizations must consider their business strategies and the characteristics of organizations such as numbers of employees, level of geographic dispersal and the nature of the environment that organizations operate in (Hislop, 2013; Pirkkalainen et al., 2017).

3.2 Individual Factors

In addition to critical organizational factors related to the success of knowledge-sharing practices, such as culture, leadership and technology, according to many researches, all types of knowledge sharing ultimately originate from the individual interactions and behavior in organizations (Sergeeva & Andreeva, 2016; Sydänmaanlakka, 2012; Widén-Wuff, 2007). More specifically, the factors that influence an individual's willingness to share knowledge are fundamental, and can be divided into, for example, an individual's motivational, trustworthiness and behavioral factors, as well as their barriers and enablers (Ardichvili, 2008).

According to Asrar-ul-Haq & Anwar (2016), factors related to the individual information sharer include dispositional characteristics, demographic characteristics such as age and gender, attitudes, knowledge sharing, and general work and organizational attitudes. In addition, previous research has identified factors that effect on knowledge sharing behavior (Asrar-ul-Haq & Anwar, 2016), which are such as:

- Enablers,
- Facilitators,
- Motivators,
- Inhibitors,
- Barriers, as well as
- Deterrents

In this study, enablers, facilitators, and motivators are used as synonyms, which allow and enable the sharing of knowledge, and inhibitors, barriers, and deterrents are used as synonyms that impedes the flow of knowledge.

Understanding factors that typically drive knowledge sharing in today's business operations among employees is a prerequisite for enabling employees to interact and achieve the ideal level of communication and knowledge sharing (Kumaraswamy & Chitale, 2012). Somewhat simplistically, knowledge sharing drivers may positively or negatively affect knowledge sharing and, thus, a careful evaluation of the drivers are important prerequisites for knowledge sharing practices development in organizations (Barachini, 2009; Ghobadi, 2015). No system will work without the added knowledge, and information cannot be re-used unless it is known how it will be exploited (Kuettner et al., 2013; Razmerita et al., 2016). Therefore, it is important to understand what factors influence employees' willingness to share and use knowledge (Okkonen et al., 2018). Next, the factors that typically influence individual's knowledge sharing are discussed in more detail.

3.2.1 Motivation, Attitude and Behavior

Motivation has been studied in the literature through many different perspectives and is a very context-sensitive concept (Ghobadi, 2015). For example, an individual's work motivation has been studied from several perspectives for decades, but quite rarely, only for a few years, attention has been paid to an individual's motivation to share knowledge within the organization (Barachini, 2009; Peltonen & Ruohotie, 1987). According to Huang, Chiu & Lu (2013) several empirical studies report that the presence of motivations had negative or insignificant impacts on knowledge sharing intentions, attitudes, or behaviors. Hence, an individual's motivation can be looked as one of the key enablers of knowledge sharing (Okkonen et al., 2018).

Definitions of Motivation, Attitude and Behavior

Figure 5. Willingness, Skills and Opportunities as a Basis of Motivation. Developed from Silvennoinen and Kauppinen (2006, p. 27).

Motivation = Will + Skill + Opportunity

Motivation can be defined as the changing mental state of an individual in relation to a particular situation, which determines the alertness and direction how he or she behaviors (Peltonen & Ruohotie, 1987). Motivation can mean a system of different factors that guides behavior and defines how a person strives to achieve their goals (Okkonen et al., 2018). Hence, as illustrated in the Figure 5, an individual's own will, skills and opportunities to show one's own motivation defines motivation (Silvennoinen & Kauppinen, 2006). Furthermore, motivation is related to a person's mental state, which determines the activity with which a person acts and how his or her interest is perceived (Peltonen & Ruohotie 1987; Okkonen et al., 2018). Therefore, motivation is a dynamic and complex process that unites a human being's personality, rational and emotional factors, and the social environment (Lin, 2007).

The word motivation comes from the Latin word 'movere', which means mobilizing and movement (Peltonen & Ruohotie, 1987; Aaltonen, Pajunen, Tuominen, 2011). Moreover, the origin of the Latin word movere is 'motus', which means movement, exercise, gesture, movement, even rebellion and riot (Aaltonen et al., 2011). According to Peltonen and Ruohotie (1987), motive is the basis of motivation as it is a motivator that creates and maintains a person's motivation. Motive can be conscious or unconscious and either internal, biological or social (Peltonen & Ruohotie, 1987). Depending of the context, among other things, the words motive and individual's preparedness, needs, and expectations describe and are related to motivation. (Barachini, 2009; Gagne, 2009).

Attitude and motivation are sometimes linked together but mean different things (Peltonen & Ruohotie, 1987; Huang et al., 2013). For the sake of clarity, the differences are briefly reviewed. On top of that what defined of motivation previously, according to Peltonen and Ruohotie (1987), motivation can be described as the weather and attitude can be compared to climate. This means that the target area of motivation is narrow, its time span is short, and it changes easily. Correspondingly, climate is attitudes, and can be seen an extensive region with a long-time span and difficult to change (Peltonen & Ruohotie, 1987). Most importantly, nurturing motivation stresses situational actions, such as incentives, measurements, and feedback, while attitude require long-term changes and are, thus, quite persistent and challenging to change (Barachini, 2009; Martela & Jarenko, 2015).

An individual's behavior is much researched topic. According to Widén (2017), an important starting point for understanding what affects the individual in the context of information activities is the behavior of individuals. Knowledge can be gathered from everywhere and through listening actively, and observing people's behavior, we can identify and interpret the real messages that they mean (Widén, 2017). Thus, by understanding human behavior, we can acquire much more valuable knowledge that we could only literally produce (Dela, 2004; Wang & Hou, 2015). According to Dela (2004), our very basic physical senses effect on our behavior and must be considered when sharing knowledge. The five physical senses are:

- Sight,
- Smell,
- Hearing,
- Taste, and
- Touch

As argued previously, motivation effects the individual's desire and behavior to share knowledge with each other. Motivated behavior is voluntary, dependent and controlled activity of the individual (Okkonen et al, 2018). However, an individual knowledge behavior and its performance is relatively neglected area in the knowledge management research, and it is often linked to an individual's attitude to share knowledge (Henttonen et al., 2016). Further, the exact definitions of the concepts of *motivation*, *attitude* and *behavior* is challenging, because the entity encompasses the characteristics of both the individual and the situation, as well as the interpretation of the individual (Martela & Jarenko, 2015).

Work Motivation and Job Satisfaction

In many cases, an individual's ***work motivation*** is closely related to the same as motivation to share knowledge, because a work-motivated employee is likely to be more open to share knowledge (Peltonen & Ruohotie, 1987; Kurttila et al., 2010; Martela & Jarenko, 2015). Work motivation arises from the employee's personality, job characteristics as well as the combined effect of the work environment and work situation (Peltonen & Ruohotie, 1987). Previous studies show that work performance improves as work motivation increases, and the performance level affected by individual differences in personality (Martela & Jarenko, 2015). Motivation is associated essentially with sharing knowledge, as it is directly related to an individual's behavior, and how they perceive the importance of knowledge and its sharing. Moreover, for instance, the time an individual has to spend collecting relevant knowledge has a long-term effect on whether it reduces or increases the motivation of employees to work (Lahtinen et al., 2013).

Moreover, ***job satisfaction*** is a related concept to work motivation. Often these two are studied and dealt with together, but they are viewed differently by researchers. However, job satisfaction stems from rewarding performance, while work motivation depends, for example, on reward expectations (Peltonen & Ruohotie 1987). Martela and Jarenko (2015) state that measuring job satisfaction is outdated, and the focus should be on measuring employee work motivation and enthusiasm. In their view, this is because employee motivation and enthusiasm better predict organizational performance than job satisfaction (Martela & Jarenko, 2015).

Motivation Types and Methods

Typically, motivation is divided into intrinsic and extrinsic motivation and the terms are commonly used in previous knowledge-sharing studies as drivers or determinants of knowledge sharing behavior (Tyler, 2012; Vuori & Okkonen, 2012). Intrinsic motivation refers to a motivation in which the task itself is interesting for the person or is pleasant for her or him to do (Wang & Hou, 2015). According to many researchers (e.g. Lin, 2007; Osterloh & Frey, 2000; Razmerita et al., 2016), intrinsically motivated employees are likely to be highly committed to the task and strive to improve their own skills. On the other hand, intrinsic motivation increases their own capabilities as well as the productivity of organizations, which is beneficial and desirable for all parties (Lin, 2007; Osterloh & Frey, 2000; Razmerita et al., 2016).

According to both Razmerita et al. (2016) and Vuori and Okkonen (2012), the difference with intrinsic motivation is that extrinsic motivation is usually described as an attempt or a drive to do something for fear of external punishment. Thus, it can be said that extrinsic motivation focuses on activities that lead to the desirable outcome. In addition, the perception of effort and reward is typically related to extrinsic motivation in sharing knowledge. This idea can be seen as a result and a basis for reward systems that many organizations have put in place to motivate employees to share knowledge (Razmerita et al., 2016; Vuori & Okkonen, 2012).

Numerous studies show that the intrinsic motivational elements facilitate knowledge sharing more effectively than the extrinsic factors (Vuori & Okkonen, 2012). However, identifying and supporting the internal motivation of employees to share knowledge can seem cumbersome, which is why it is most often thought that it is easier to guide employees by means of extrinsic motivation (Wang & Hou, 2015). In any occasion, using only extrinsic motivation in today's organization is inevitably outdated, and ultimately a laborious option, and as numerous studies on the subject show, it is not effective at all (Martela & Jarenko, 2015). In order for employees to have an incentive to share their knowledge, however, the expected benefits must, of course, reimburse the costs and effort (Razmerita et al., 2016).

It is clear that motivation for sharing knowledge can diverse and knowledge sharing activities cannot be forced (Henttonen et al., 2016). According to Tyler (2012), employees are motivated to share knowledge for two reasons, which are:

1) Firstly, because people want rewards and avoid being punished, and
2) Secondly, because employees own intrinsic motivations, such as values and attitudes influence, and they simply want to share their knowledge.

Therefore, the sense of personal importance in knowledge sharing is more powerful than enjoyment, or material and social rewards (Tyler, 2012).

Furthermore, studies have found that, for example, tacit knowledge involves more effort to share and thus may require more and, or at least different incentives to share than explicit knowledge requires (Seergeva & Andreeva, 2016). Sharing tacit knowledge might be less dependent on external incentives and is mainly driven by individuals' autonomous motivation (Hau et al., 2013; Osterloh & Frey, 2000). In addition to this, the sharing of tacit knowledge might be more dependent on individual skills to share knowledge (Hau et al., 2013; Seergeva & Andreeva, 2016), which is being discussed in more detail later in the section 3.2.2.

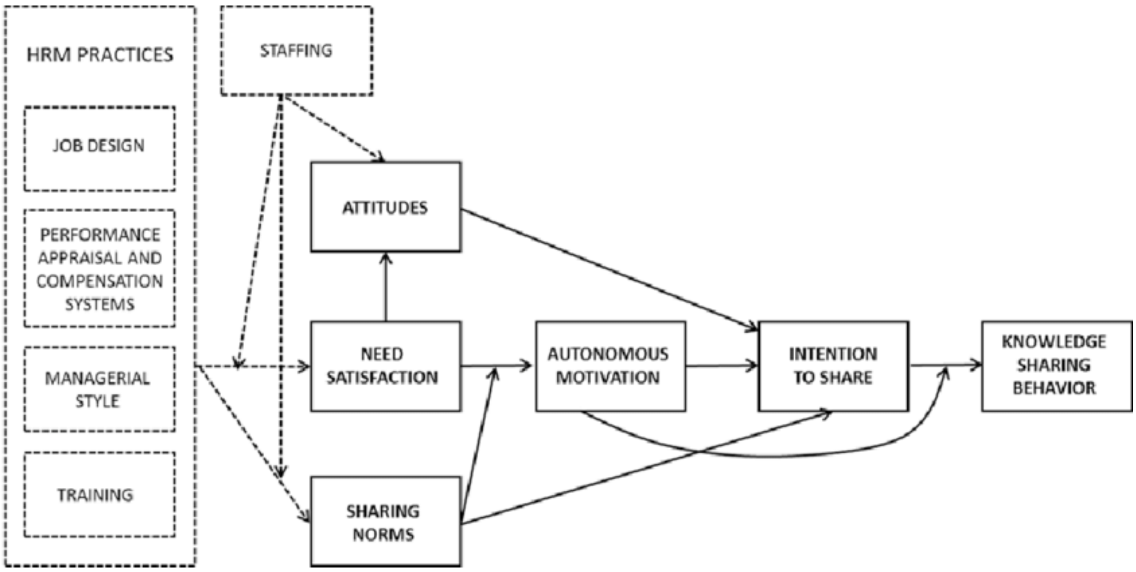
However, management can promote an individual's motivation to share knowledge. Based on the literature, themes that support an individual's motivation in organization to share knowledge are:

- Personnel decisions,
- Job planning,

- Performance appraisal and remuneration systems,
- Management practices and communication of practices,
- Leadership,
- Trust,
- Change management, and
- Education and development (Gagné 2009; Laitinen & Stenvall 2012; Rytilä 2011).

Gagné (2009), suggests how human resource management (HRM) can promote individuals' intrinsic motivation to share knowledge. In short, her theory is based on a combination of the theory of planned behavior (TPB) and self-determination theory (SDT) (Gagné, 2009). The model proposes that when using both TPB and SDT, an individual's intentions to share knowledge and actual sharing behavior in organizations can be predicted. Moreover, theory of self-determination takes into account the quality of motivation that enhances knowledge-sharing behavior (Gagné, 2009). The model of knowledge sharing motivation is shown in the Figure 6.

Figure 6. The Model of Knowledge-sharing Motivation. Developed from Gagné (2009, p. 575).

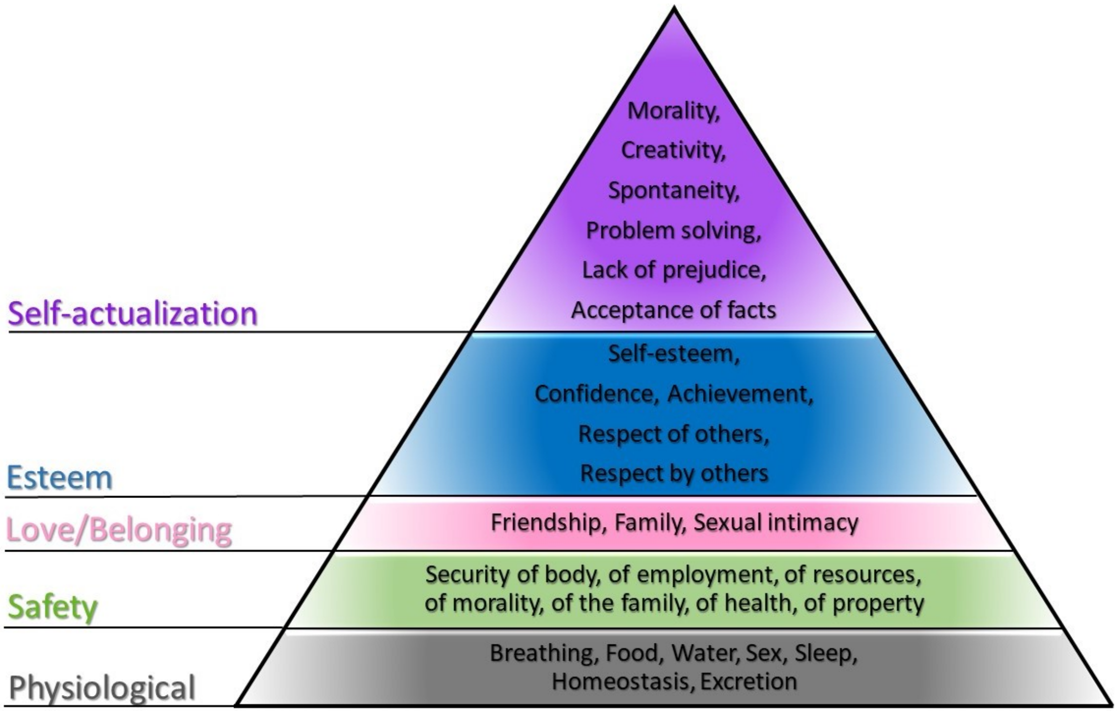


Martela and Jarenko (2015) state that a motivated employee is more productive than a non-motivated one because motivated people spend more energy on their tasks, they see their tasks more broadly, learn faster, are more creative, work harder, are better customer servants, change jobs less frequently, and rarely take sick leave. Additionally, the individual's motivation is related to person's own self-image, which affect self-confidence and, thus, well-being at work (Martela & Jarenko, 2015). In addition, the motivation and value experienced by the employee increases when he or she receives appreciation (Kurttila et al., 2010).

Maslow's Hierarchy of Needs

According to Barachini (2009) and Sydänmaanlakka (2017), Abraham Maslow's (1943 & 1954) five-step hierarchy of needs is the best known, most used, and much criticized theory of human needs. Maslow's theory of needs has also been linked to describe an individual's motivation to share knowledge. The theory is based on the fact that needs and motives of an individual are organized hierarchically and therefore the needs lower in the hierarchy must meet in some way before an individual can be motivated by a higher-level motive in the hierarchy. In addition, according to Maslow's theory, work must be organized to meet the hierarchies of needs and incentives that meet those needs (Barachini, 2009; Sydänmaanlakka, 2017). Maslow's hierarchy of needs is broad, but in this study, the focus is only on the individual factors that influence knowledge sharing. Typically, Marslow's hierarchy of needs is described in a shape of pyramid and is illustrated in the Figure 7.

Figure 7. Maslow's Hierarchy of Needs. Developed from Sydänmaanlakka (2017, p. 214).



Briefly, the five different stages of human needs are in a hierarchic order, starting from the bottom of the pyramid, the most basic ones to the top of the pyramid, to the most complex ones. However, the goal of Maslow's theory is to attain the highest level of stage self-actualization needs. As seen in the Figure 7, Maslow has identified five steps of needs that human motivations generally move through, which are:

- Physiological needs,
- Safety needs,
- Love and belonging needs,
- Self-esteem needs, and
- Self-actualization needs (Barachini, 2009; Sydänmaanlakka, 2017).

According to Sydänmaanlakka (2017), in essence, individuals can have any need for knowledge sharing regardless of others. In order to describe the different perspectives of an individual's needs, for instance, for some work means livelihoods and, for others work is related to seeking social contacts. However, individual motivation factors for knowledge sharing are emphasized at the top of Maslow's hierarchy of needs, and the problem areas are situated to the lower end of the hierarchy. For example, the external motivational factors relate to the lowest level of physiological needs and are mainly related to livelihood as motivating factors in the workplace, such as pay, vacations, and other benefits. An individual's motivation towards knowledge sharing consists of several things. For example, a sense of community motivates knowledge sharing and social relationships and a common language create an environment conducive to share knowledge (Sydänmaalakka, 2017).

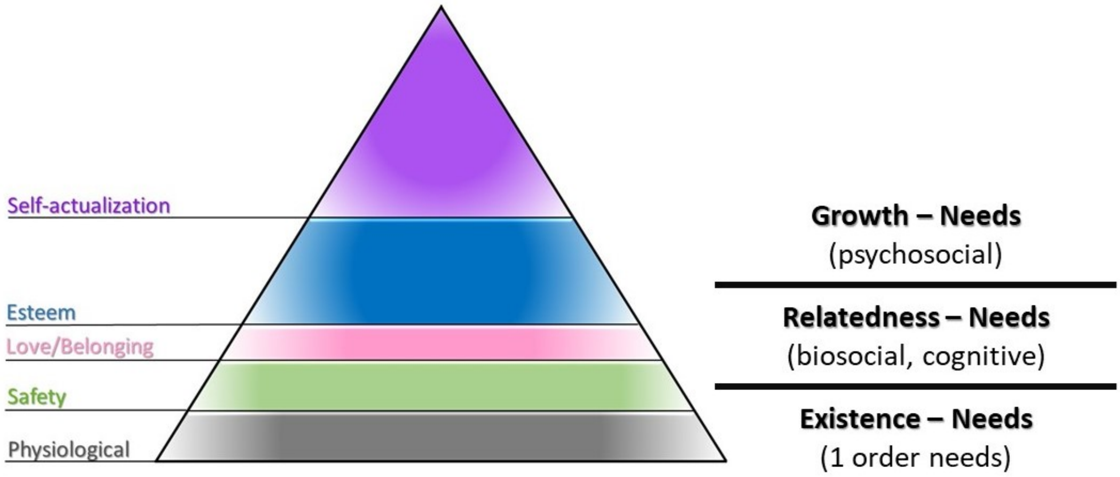
Alderfer's ERG Theory

For the purposes of this study, however, Aldefer's (1972) transformation of Maslow's five need's theory to reduction of three needs is more appropriate in assessing an individual's motivation to share knowledge (Barachini, 2009). According to Barachini (2009), Aldefer stated that the needs in the Malsow's pyramid are overlapping and calls his own three-class pyramid of needs as a ERG theory. The three classes are as follows:

- Growth needs,
- Relatedness needs,
- Existence needs.

In addition to the difference between three classes instead of five, the main difference in the ERG theory to Maslow's theory is that not all the needs of one class need to be met before the needs of the next class can be reached (Barachini, 2009). This reduction from Maslow's theory to Aldefer's ERG theory is shown in Figure 8.

Figure 8. Reduction from Maslow to Aldefer, the Three Needs of an Individual. Developed from Barachini (2009, p. 106).



In summary, the factors that motivates an individual to share her or his knowledge is a complex and sum of many interdependent and independent aspects. Sometimes, however, mere motivation to share knowledge is not enough and knowledge is needed on how or with whom it is shared (Henttonen et al., 2016). This requires the individual both to have the skills and personal behavior to share knowledge, which are addressed next.

3.2.2 Personal Skills, Competence, Learning, Training, and Technostress

Thus far, the individual's skills for knowledge sharing have not been extensively studied in KM studies even if learning and skills is a very broad and much researched area. Today, however, it is understood that in this transformation of the knowledge environment, the notion of knowledge-basedness, in particular, needs to be expanded (Henttonen et al., 2016). In this context, emphasis is placed on the individual's personal learning and skills in both acquiring and sharing knowledge.

Definitions of Skills and Competence

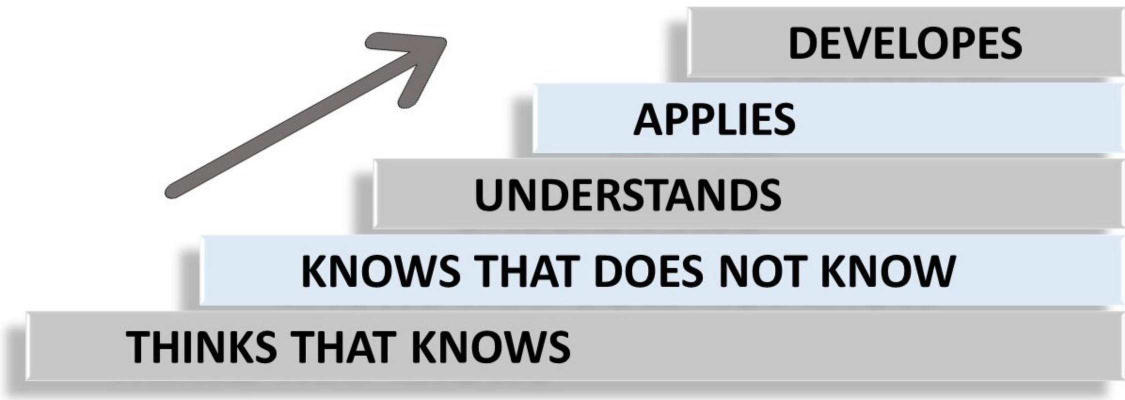
An individual's **skills and competence** are based on knowledge and is channelled into action when the skill holder applies knowledge in a motivated manner (Virtainlahti, 2009). An individual's competence consists of knowledge, skills, attitudes, experiences and contacts, where the learner is the processor, editor, and holder of knowledge (Sydänmaanlakka, 2012). In addition, competence and skills are equated with a person's professional skills and expertise (Virtainlahti, 2009).

According to Hellström et al. (2019) knowledge use and sharing require new types of interaction skills from both process designers and those involved. Knowledge sharing stands for the mutual exchange of knowledge, which ideally leads to relevant knowledge sharing between individuals. For this to happen, individuals must both engage in knowledge sharing and it requires new skills of individuals (Hellström et al, 2019). Therefore, the success of knowledge sharing essentially boils down to an individual's skills (Henttonen et al., 2016). Because learning enables a person's knowledge and skills, it is defined next.

Definition of Learning

Learning is the process by which an individual acquires knowledge, skills, attitudes, experiences and contacts that lead to changes in his or her actions (Serrat, 2009; Sydänmaanlakka, 2012). According to Sydänmaanlakka (2012), typically, learning defined through different stairs or levels, and learning can take place on many levels. Before the level of knowing, two levels can already be distinguished, which are that either the person thinks she or he knows or she or he knows that she or he does not know (Sydänmaanlakka, 2012). Therefore, learning is about knowing, understanding, application and development (Ardichvili, 2008; Blacker, 1995; Lahtinen et al., 2013). The stairs of learning are illustrated in the Figure 9.

Figure 9. The Stairs of Learning. Developed from Sydänmaanlakka (2012, p. 34).



Learning new skills is not such a straightforward process, but learning is of a different type. For instance, Sydänmaanlakka (2012) defines four different kinds of types of learning, which are:

- Responsive learning,
- Proactive learning,
- Action learning, and
- Questioning learning.

Different types of learning can also occur together (Sydänmaanlakka, 2014). In particular, learning through knowledge sharing is equated with action learning in the work community (Järvinen, Koivisto & Poikela, 2000). In any case, learning takes place if a person has a desire to learn, so previously described motivation is the starting point for all learning and, thus, for and individual's personal skills (Ardichvili, 2008; Serrat, 2009; Sydänmaanlakka, 2012).

Forms of Skills and Competence

Knowledge is shared in many of ways, including through interaction, collaboration, training and dissemination of methods and practises that have been successful elsewhere (Seergeva & Andreeva, 2016). A trained expert must be cooperative and possess interaction skills in addition to independent problem-solving ability (Amayah, 2012; Asrar-ul-Haq & Anwar, 2016). In knowledge work, managing and constantly updating one's own knowledge is the key factors. In addition, today's network-like work and activities require the utilization of competence development methods and the sharing of knowledge (Sydänmaanlakka, 2017).

An effective person has a set of skills with which she or he creates added value for her or his organization (Janus, 2016, Silvennoinen & Kauppinen, 2006). Silvennoinen and Kauppinen (2006) suggest that these individual's skills can be grouped, for example, as follows:

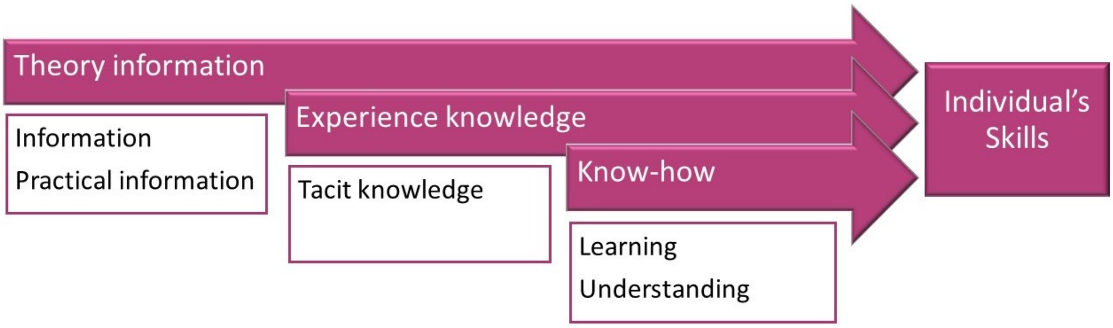
- *Work-related skills*,
  which involve technical and practical skills. These form the basis of a set of skills related to the use of work environment tools, as well as the general knowledge and skills required at work. They require training, practice and experience. An

effective employee manages his or her job so well that his or her skills in critical work stages are extremely important.

- *Interpersonal skills related to the organization*,
  including skills related to how the employee acts as a member of the team and how she or he is able to build a network with people and supervisors across the organization. At its best, an employee has a well-functioning network that helps them get their job done and help in difficult situations. In addition, by interacting with different people, he also learns himself all the time.
- *The values are in place,*
  which refers to an employee with a 'bold conscience', who guides her or his actions at work and in interactions. This can be, for example, pleasantness, an understanding of reciprocity, and a sincere appreciation of another person's expertise. According to research, when people get to choose with whom they prefer to work with, they choose their partner on two main criteria, one is the person's qualifications and the other is her or his pleasantness (Silvennoinen & Kauppinen, 2006).

It is said that practical knowledge and reasoning involve knowledge as well as the tacit knowledge already defined in section 2.1.3 earlier. Thus, competence can be presented as a chain of combining and using information, starting with the utilization of information, which leads to knowledge and know-how (Sydänmaanlakka, 2014), of which leads to an individual's skills to use and share knowledge (Janus, 2016). This chain of learning, where knowledge is applied and, eventually, can be considered as an individual's skills, is illustrated in the Figure 10.

Figure 10. The Chain of Learning, Applying Knowledge to Skills. Developed from Sydänmaalakka (2014, p. 72) and Janus (2016, p. 32).

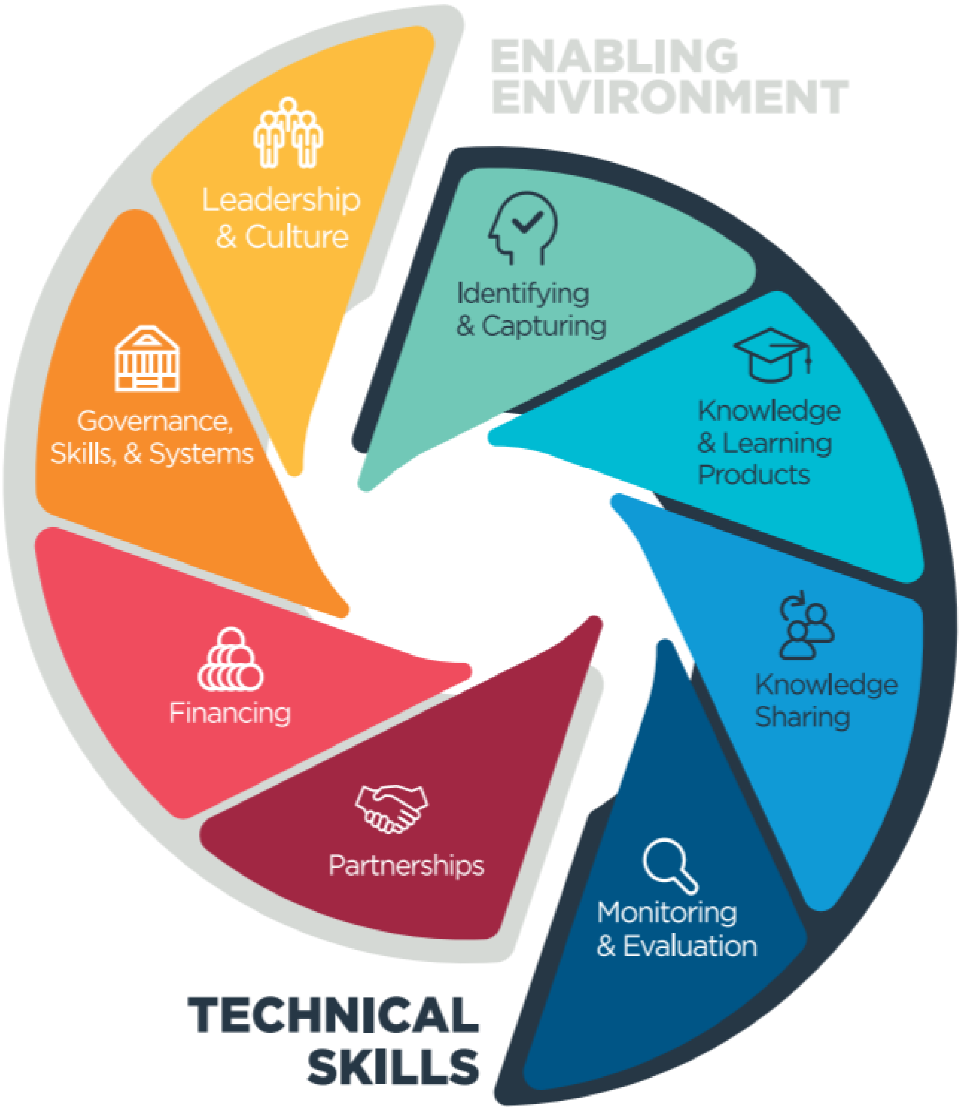


For an expert in continuous professionalism competence maintenance and development, special skills and training are important practices. According to Janus (2016) for employees' knowledge sharing to thrive, organizations need to develop two things,

1) Firstly, *the capability enabling environment*, and
2) Secondly, *the technical skills.*

The enabling environment for capabilities is created mainly by management of the organization, of which make strategic decisions. These were discussed in more detail in the previous sections 2.3. and 3.1. However, in particular, the technical skills operationalize effective knowledge capturing and sharing. Both capabilities can be divided into four pillars (see Figure 11 below), which are supporting an individual's skills to better knowledge sharing. Enabling environment includes *leadership and organizational culture* that conductive knowledge sharing, by everyday operations, which again for their part ensure attractive recognition mechanisms that reward employees for sharing knowledge. They include *effective governance mechanisms* and the enabling environment is supported through *financing* and *partnerships*. Technical capabilities for effective knowledge operations consist of systematically *identifying and capturing* the organization's operational experiences and lessons, packaging them into *knowledge and learning products*, *sharing* them within and outside the organization, and *monitoring and evaluating* these efforts (Janus, 2016).

Figure 11. The Eight Pillars of the Knowledge-Sharing Capabilities Framework. Developed from Janus (2016, p. 8).



Importance of Training

The development of skills related to the use of knowledge often emphasizes the skills needed to communicate and make knowledge understandable and to improve the matching of knowledge supply and demand (Hellström et al., 2019). One of the bottlenecks in knowledge sharing and use is, in particular, due to the lack of an individual's expertise and skills (Janus, 2016; Skulanski, 1996; Wang & Hou, 2015).

Hellström et al. (2019) investigated the factors that affect the decision making in society and determined eight factors that are related to an individual's personal skills to deal with and share knowledge, which are:

1. Creating a snapshot,
2. Facing uncertainty,
3. Monitoring and evaluation,
4. Building networks,
5. Stakeholder involvement,
6. Understanding different worlds,
7. Communication and advice, and
8. Interpersonal skills.

The importance of training plays a great role in effectiveness of an individuals, which is highly appreciated skill in an employee (Janus, 2016; Zieba et al., 2016). According to Janus, (2016) some of the more commonly required skills of an employee are:

- Interpersonal communication
- Information technology
- Learning design and facilitation
- Journalism skills
- Information management
- Writing skills
- Analytical skills
- Management skills

However, as stated by Janus (2016, 32) *"knowledge-sharing initiatives will not gain a foothold in an organization's daily operations unless staff members are trained in how to participate in and benefit from knowledge sharing"*. In addition, it is also important that training programs relate to specific tasks and activities already performed by employees, and not duplication or unnecessary training (Gagné, 2009; Zieba et al., 2016). Janus (2016) suggests that integrating knowledge exchange training into the orientation activities of new employees can also be an effective way to embed ways of knowledge sharing in organizational culture and in the subsequent way individuals act. Correspondingly, Gagné (2009) states that the mere possibility of training access affects individual behavior and task performance positively, as it influences an individual's intrinsic motivation.

In addition, organizations benefit in many ways when the competitiveness of those who operate there is ensured (Virtainlahti, 2009). For example, organizing a substitute staff scheme can increase personal room for maneuver and know-how of different work tasks (Sydänmaanlakka, 2014; Virtainlahti, 2009). Organizational competence is created when tacit knowledge is transformed into visible information and again back for tacit information (Nonaka & Takeuchi, 1995). Recently, the vigorously increased use of technology and new digital and virtual worlds in the work environment has significantly increased the need of an employee to learn new ways of doing work (Pirkkalainen et al., 2017). The earlier studies on knowledge sharing and socializing in virtual worlds have suggested that these environments have several specific advantages and limitations that are not found in other types of digital environments. According to Huvila et al. (2014); for example, the multimodality of communication and possibility to interact with a three-dimensional environment has been suggested to enhance social exchange and consequently, processes of knowledge use and learning. The accumulation of social capital is, however, a complex process (Huvila et al., 2014).

Concept of Technostress

As the active use of information technology (IT) is significantly increased in organizations, a one new negative effect of IT, a phenomenon called ***technostress,*** has emerged among people (Tarafdar et al., 2015). In essence, technostress "*has been defined as the inability of an individual to cope with the demands of IT use, which results in perceived stress"* (Pirkkalainen et al., 2017, p.1). Resent research in the field has shown that both enablers and restraints of handling the stress and coping with the heavy workload are strongly related to the well-being at work, and should be addressed in order to facilitate better work performance (Okkonen et al., 2018; Tarafdar et al., 2015).

In addition, Pirkkalainen et al. (2017) argue that technostress is caused by constant connectivity and 'always on' mentality, which negatively affects an individual's personal achievements and overall performance and, thus, causing negative emotions. However, an individual's emotions influence directly to knowledge sharing intentions, such as to an individual's willingness and motivation to share knowledge (Dela, 2004; Van den Hooff, Schouten & Simonovski, 2012). Technostress is also increased and associated with the fact, when ICT tools are difficult to use, or the training or management is poorly organized (Okkonen et al., 2018). Moreover, the phenomenon of technostress not only sets major demands for managing and training but requires a wide understanding of IT users' daily practices and their varying demands set by IT (Pirkkalainen et al., 2017).

Emotional Intelligence and Self-leadership

However, the responsibility for promoting healthy IT use does not lie solely with the organization and management, as IT users themselves play a key role in controlling their IT use (Pirkkalainen et al., 2017). Correspondingly, Sydänmaanlakka (2017) argue that today's busy person is ultimately responsible for their own mind control and an individual's mental intelligence is a crucial factor in coping with any kind of stress. Psychic intelligence can be defined as the skillful management of one's rational mind, where the goal is peace of mind. Thus, stress and mind can be controlled by contemplation, such as reflecting on one's skills. For instance, an individual may embark on her or his own mental intelligence by following skills and abilities (Sydänmaanlakka, 2017):

- Considering good learning skills, such as the ability to acquire, absorb, and use knowledge effectively,
- Problem-solving ability, and
- Self-reflection, that is, in-depth assessment of things.

In other words, so-called sub-skills such as how to be a good subordinate and employee are emphasized in today's working life, where the amount of knowledge has increased (Silvennoinen & Kauppinen, 2006). Silvennoinen and Kauppinen (2006) continues that emotional intelligence controls how a person is able to use their other skills, abilities, and personality as fully as possible. Emotional intelligence includes skills that make it easier for us to get along with ourselves or other people. Coping with oneself is, thus, related to the ability to identify, make observations and understand one's own feelings as well as emotion-based behavior. This has also been found to have a clear effect on emotion-based fear and conflict situations, where feelings of insecurity or trust are emphasized (Silvennoinen & Kauppinen, 2006).

Self-leadership has a central spot in the knowing, learning, and sharing one's know-how and knowledge. According to Stewart, Courtright & Manz (2011, p. 11) *"Self-leadership is generally beneficial at the individual level but context dependent at the team level. Having individuals regulate their own actions is consistently helpful both to them* *personally and to the organization."* Moreover, self-leading employees have more positive effect at work (Stewart et al., 2011). Self-leadership is related to another concept, to self-actualization, which is having self-respect and self-acceptance, to a positive attitude about oneself, and to accepting one's positive and negative qualities (Silvennoinen & Kauppinen, 2006). However, this study does not focus on neither of these concepts in more detail.

In conclusion, individual skills and learning are a very broad concept and, therefore, this study only provides a better understanding of demanded individual skills and competencies required in terms of knowledge sharing. Since knowledge sharing and all forms of communication in general take place in between different individuals or communities, previous research has shown that trust between individuals is one of the most required things to exist in order for knowledge to be shared (Hislop, 2013; Niven, Hollman & Totterdell, 2012). Hence, the next section introduces the topic.

3.2.3 Trust

Trust is said to be a prerequisite for knowledge sharing (Widén-Wuff, 2007). High levels of trust provide positive experiences, which, in turn, encourage knowledge sharing among individuals (Arnold, Benford, Hampton & Sutton, 2014). Similarly, Chen, Lin & Yen (2014) agree that trust is an important predictor of knowledge sharing. Further, when the relationship is built on trust, a more open and effective knowledge sharing relationship plays an important role in other organizational levels, too (Chen et al., 2014). For instance, trust plays an important role in managing change and other reforms in the organization (Niven et al., 2012).

Concept of Trust

Figure 12. Trust is Credibility and Empathy. Developed from Silvennoinen and Kauppinen (2006, p. 67).

Trust is built by credibility and empathy together (Figure 12) and, in addition, trust includes a dimension of benevolence and honesty (Silvennoinen & Kauppinen, 2006).

Moreover, trust can be discussed at both individual level as an interpersonal trust and at organisational or different social levels (Hau et al., 2013).

According to Silvennoinen and Kauppinen (2006), a problem-solving sales negotiation emphasizes building trust and credibility, and this mindset is equally well suited to building trust between people. The elements related to credibility and trust are as follows (Silvennoinen & Kauppinen, 2006):

- *Good manners,*
  which means the willingness and ability to respond to external expectations of the other party appropriate conduct and behavior. This can be a suitable way of speaking, for example.
- *Competence*,
  which is the other party's perception that you have expertise. Competence essentially involves the ability to cooperate.
- *Cohesion,*
  which is the perception of how similar your interests, beliefs and values are. Respect for the values of the other is an integral part of this.
- *Intentions*,
  which means an interest in the success and well-being of another. Intentions are related to a person’s motives.

Moreover, one key factor that has been identified as an important factor preventing the sharing of knowledge is fear (Razmerita et al. 2016). So called psychological safety is positively related to more interpersonal communication (Law, Chan, Ozer, 2019). Influencing people’s emotions may be a successful way to gain people’s trust and tackle fear. When employees do not know what is happening or is about to happen, it causes fear and doubt about the future (Niven et. al., 2012). According to Sydänmaanlakka (2012) the organization must have enough so-called trust capital. This means that everyone trusts that the sharing of knowledge contributes to their own and the organization’s success. In this context, it is important that the knowledge shared is relevant. Typically, in the definition of relevant knowledge, a shared concrete vision and a strategy for the company are useful (Sydänmaanlakka, 2012). Similarly, Hislop (2013) states that collaboration and knowledge sharing can be facilitated by efforts to develop the social relationship that exists between those involved in cross-community collaborating. The importance of trust is huge in this context (Hislop, 2013).

Trust can be classified to different dimension types, and according to Hsu, Ju, Yen, and Chang (2007), who discuss trust in virtual communities, the dimensions of trust are as follows:

- Economy-based trust,
- Information-based trust, and
- Identification-based trust.

Economy-based trust, which can be for example, joining a virtual community, saves time and cost in obtaining knowledge and will also improve individual's own skills. Information-based trust refers to security of personal information and trust that it will not be misused. Identification-based trust means the opportunity to freely discuss personal issues without a fear of receiving anything other than a constructive response (Hsu et al., 2007).

Law et al. (2019) suggests that when the workplace represents the presence of trust, employees trust their co-workers and managers and perceive fairness in how their effort has been awarded. Empirical evidences have shown that hence, they feel psychologically safe to continue contributing themselves to the continuous improvement of the organization (Law et al., 2019). As a tool, storytelling helps building trust between the partners, since it sometimes reveals personal viewpoints as well (Rauhala & Vikström, 2014).

Share-hoard Dilemma

Razmerita et al. (2016, p. 1240) investigated which factors affect employees' knowledge sharing behavior within organizations and found out that *"the biggest identified challenge is to change of behavior from hoarding to sharing knowledge"*. According to their research, individuals pursue to maximize their own interests and salary, which makes them reluctant to participate in knowledge sharing and, thus, leading to collective damage (Razmerita et al., 2016). Correspondingly, Henttonen et al. (2016) argue that if an individual experience a benefit, it increases the likelihood of knowledge-sharing behavior, while perceived costs have a negative impact on commitment to knowledge sharing. Moreover, expected benefits or rewards may be monetary or non-monetary nature. In addition, a possible loss of value and bargaining power and, thus, the protection of one's personal advantages at work is related as a one reason for the reluctance of a knowledge provider to share knowledge. However, based on the results of the area, it has been found that for employees with a higher level of education, knowledge sharing is perceived to be positive and constitutes power at work, since knowledge sharing leads to a better work performance (Henttonen et al., 2016).

Management policies and organizational structures are also essential to be flexible, supporting and optimizing individual knowledge sharing, and, thus, contributing to enable knowledge hoarding in places, divisions, departments, and functions (Iqbal, Toulson & Tweed, 2014; Kamla & Olfman, 2016). Correspondently, feeling of justice is other important facilitator of knowledge sharing in the workplace (Law et al., 2019). The work environment prevents the sharing of knowledge and encourages the hoarding of knowledge, if the incentives are not fair nor merged with targets set by management (Kamla & Olfman, 2016). Employees, who share knowledge, should be recognized, but with the right metrics, since poor organizational policies regarding employee recognition may adversely affect their knowledge sharing behavior (Iqbal et al., 2014). For instance, according to Osterloh and Frey (2000), employees' potential abilities and knowledge cannot be measured if employee performance is determined solely by outcomes. Hence, organizational policies that create a competitive environment between employees are likely to undermine collaboration and lead to knowledge hoarding (Osterloh & Frey, 2000). However, understanding this requires further research, and this study does not address the share-hoard dilemma in any more detail.

In summary, knowledge sharing among employees depends on participation and communication, and requires voluntary, dynamic interactions based on intersubjectivity and trust among the organization's members (Ahn & Hong, 2019). However, these actions can be significantly maintained and improved in organizations (Kamla & Olfman, 2016). Boland and Tenkasi (1995) argue that effective knowledge sharing involves a process of mutual perspective taking where distinctive individual knowledge is exchanged, evaluated and integrated with that of others in the organization. Today, increasingly common decentralized groups and virtual groups significantly increase management difficulties and, as well, opportunities (Sydänmaanlakka, 2012).

Commitment is the spark that separates good teams from the excellent teams and, thus, the management should likely to spend much of their effort on strengthening and enabling individual's motivation, behavior, skills, and building trust among others (Sydänmaanlakka, 2014; Henttonen et al., 2016).

4 METHODOLOGY

This chapter reviews the qualitative case study research approach and the inductive content analysis used in the thesis as methods to gather and examine the data. The data collection was carried out in a typical way for a case study using several different methods, and the selected methods are presented in this chapter. The core data was collected through interviews with the operational employees in one of the sub-units of the case company, and the additional knowledge on the topic under study was gathered through observations, interviews with selected managers and reviews of the case company's publications and websites. Moreover, a detailed description of how the interviews were conducted, the preparations for the interviews, the themes of the semi-structured interviews-questions, and the background of the interviewees, are introduced. In addition, the case company is introduced briefly and the current and desired state of the internal knowledge sharing practices and the background of the interviewees are clarified.

Successful data collection requires careful and holistic planning in advance. To ensure reliable findings from the research, it is important to select a suitable method for the data collection process that meets the requirements of the study and supports to fulfil the objective of the thesis (Liamputton, 2013). This thesis lays a great emphasis on the collected data. The objective of this thesis, as presented in the section 1.3., is to map the employee's perspective of the internal knowledge sharing practices of the organization and, thus, identify how the existing practices can be developed. Therefore, the overall objective of this thesis is to provide a rich description of how internal knowledge sharing practices and their management can be supported by SME's. Next, the chosen methods and approaches for data collection are presented.

4.1 Qualitative Case Study Research

The aim of a qualitative research is to describe the phenomenon under study in the context of real life and, thus, identify the meanings of the research and the related functions. According to Hirsjärvi, Remes, & Sajavaara (2005), reality is seen as diverse, interconnected as a whole of influential events that cannot be broken down into parts arbitrarily. Typically, information and knowledge in qualitative research are acquired in real situations, where the target group or respondents are appropriately selected. Therefore, a qualitative research is understood to be a unique description of the current situation (Hirsjärvi et al., 2005). Furthermore, the qualitative research method seeks to understand social reality and provides a rich description of people and interaction in the natural setting and, thus, provides an in-depth understanding of the topic (Liamputton, 2013). One of the benefits of a qualitative research is that the implementation of the research is flexible, which means that the research plan is modifiable and may change as the research progresses, if necessary (Hirsjärvi et al., 2005).

However, in order to describe the nature of a particular phenomenon in qualitative research, the challenge is to succeed in obtaining generalizable knowledge of the subject under study (Hirsjärvi et al., 2005). As a case study seeks to apply practical and useful in-depth knowledge (Valli, 2018), the case study approach was used to support and provide a broad understanding of the reality in order to develop practices (Liamputton, 2013; Valli, 2018). The case study collects detailed information about the work community and its processes (Metsämuuronen, 2000). In addition, a case study is often seen as a preliminary or a pilot study of the main research as it answers how and why questions (Liamputton, 2013). The data can be collected and analyzed partially simultaneously, and qualitative research can also include quantitative information (Metsämuuronen, 2000). Furthermore, since the case study is intended to provide a deep and diverse picture of the phenomenon under study, the case study is characterized by a multi-methodological approach (Kananen, 2019; Metsämuuronen, 2000).

4.1.1 Inductive Content Analysis

According to Tuomi and Sarajärvi (2012), content analysis can be divided into three different analysis models, which are:

- Data-driven (inductive),
- Theory-bound (deductive), and
- Theory-based analysis model.

Due the nature of the practice-based objective of the research, an inductive content analysis was chosen for this study. In general, an inductive content analysis is a commonly used method in qualitative research and, in particular, to describe the phenomenon under study. In addition, content analysis captures the phenomenon in a concise manner, which helps to organize the material for drawing conclusions (Tuomi & Sarajärvi, 2012). By the same token, an inductive content analysis seeks to reveal unexpected facts by looking at the data material in detail and in a complex way (Liamputton, 2013). Therefore, by using an inductive content analysis when analysing a qualitative data, the researcher does not decide what is important and what not, which sometimes is found to be problematic (Hirsjärvi et al., 2005).

According to Tuomi and Sarajärvi (2012), an inductive content analysis of the qualitative data can be described as a three-step-process, which includes *reduction of the data* (1), *aggregating of clustering the data* (2), and *creation of theoretical concepts* (3). These three steps are illustrated in the Figure 13.

Figure 13. Inductive, a Data-driven Content Analysis as a Three-Step-Process. Developed from Tuomi & Sarajärvi (2012, p. 108).

In the first phase of the three-step-process of an inductive content analysis, *the reduction of the data* refers to the compaction of fragmentation of the collected data. Once this step is done, the original expressions coded from the data material are carefully reviewed when *aggregating or grouping the data*. At the same time similarities or differences are evaluated, and the concepts that mean the same thing are grouped and, typically, named into a class. The classification may be, for example, a property, feature, or perception of the phenomenon under study. This second step helps in creating the basis structure of the study and preliminary descriptions may be done of the subject phenomenon. After clustering, an abstraction is performed that separates from the research point of view *relevant concepts and theoretical concepts are formed* on the basis of selected information. Thus, abstraction is continued by combining classifications as long as it is necessary or possible from the point of view of the content of the material (Tuomi & Sarajärvi, 2012).

4.1.2 SWOT Analysis

A SWOT analysis is a very useful technique for evaluating various issues, especially for preliminary mapping of certain topics and organizational environments (Ajmera, 2017; Kumaraswamy & Chitale, 2012). According to Sevkli et al. (2012) as early as 1965, Andrews popularized a tool called a SWOT analysis, whereby the different views of the strengths, weaknesses, opportunities and threats of the matter or situation under investigation can be defined and determined (Sevkli et al., 2012). Therefore, a SWOT analysis is a powerful tool as it summarizes and accurately represent the different aspects on the matter under investigation and due to its simplicity, it is widespread (Kumaraswamy & Chitale, 2012). In addition, previous studies have shown that the successful use of a SWOT analysis can reveal highly influential factors that may support decision making related to strategic dimensions (Ajmera, 2017).

Moreover, a SWOT analysis provides a foundation for the formulation of strategies (Ajmera, 2017). Similarly, according to Kumaraswamy and Chitale (2012) a knowledge-based SWOT analysis identifies and prepares the current knowledge in order to develop and exploit to a potential knowledge sharing strategy, which can be proposed through the knowledge identified by SWOT analysis. However, the objection of a SWOT analysis is that the factors cannot be quantified by their importance (Kumaraswamy & Chitale, 2012). Hence, the use of other decision making techniques may also be necessary (Ajmera, 2017).

In this thesis, a SWOT analysis is used as a method to analyze and assess the strengths, weaknesses, opportunities, and threats of both organizational and individual factors that influence and by that define the factors that either inhibit or enable the knowledge sharing practices of the case company. For clarity, both organizational and individual barriers and enablers are presented separately. The factors that prevent the knowledge sharing are the factors which appeared to be threats and weaknesses and the factors that enable knowledge sharing practices, are considered to be both strengths and opportunities.

4.2 Data Collection

Data collection is the process of gathering and measuring knowledge, which is done by using systematic research methods (Hakala, 2017). Carrying out an appropriate data collection method plays an important role in research, as it allows researchers to gather relevant evidence that allows analysis to provide a means to answer research questions as well as to draw conclusions and suggestions for further research (Liamputton, 2013). In addition, the need for data must always be assessed according to the research aim (Hakala, 2017). Since the aim of the study is to understand the experiences of the interviewees and the meanings given to them, this study lays a great emphasis on the employee interviews with operational employees of the case company's sub-unit. However, in addition to the findings of employee interviews, additional knowledge on the topic was collected by observing the personnel of the case-company's sub-unit, by interviewing selected managers, and by reviewing the company's publications and websites.

4.2.1 Observations

According to Vilkka (2018), in qualitative research, observations can be seen as a sign what is; for example, a word, a phrase, a feature, action, a thought, or a deed. In addition, observation includes a meaning and they may be seen as clues that bring out the meanings of a phenomenon or issue in order to discover new knowledge. Observations can be collected through following basic senses (Vilkka, 2018):

- Hearing, for example, speech or discussion,
- Seeing, for example, different texts, the environment, or situations,
- Tasting, for example, whether something is sweet or salty,
- Feeling, for example, an experience or touch, and
- Smelling for example, smells or aromas.

However, the research approach and the research problem have an impact on what kind of observations are looked for and from where (Vilkka, 2018). Accordingly, the time spent on observation also depends on the purpose of the study (Aarnos, 2018).

The observation method can be either structured or non-structured observation (Aarnos, 2018). Typically, many participatory data collection methods include a non-structured observation method, since it is used when the subject under study needs to be understood more accurately and, thus, the researcher needs to use her or his experience to learn the language, activities and cultural meanings of the subject (Vilkka, 2018). In addition, observation is considered an important part of preparing for an interview, especially if the subject of the study is strange to the researcher in advance (Aarnos, 2018).

Participant Observation

According to Waddington (1994), participant observation refers to the observation and recording of the social interaction between the researcher and the examinees in the examinees' own environment and everyday life. These may be, for example, experiences, behavior, feelings and interpretations. At the same time, the material can be compiled by reviewing company documents and conducting interviews. Participatory observation is seen as a method of data collection related to qualitative research, and an appropriate research method, especially in situations where one wants to find out meanings, interpretations, and individual's motives (Waddington, 1994).

The researcher's personal qualities are also seen to have an impact. An open and curious mind, perseverance, and the ability to adapt to different situations and work with different people, make the participant observation job easier (Waddington, 1994). Vilkka (2018) states that the degree of researcher participation affects what roles the researcher is having or given in the research subject. Thus, during the research process, a participating researcher may find that she or he is a therapist, problem solver, expert, compassionate, and community supporter, buddy, or peer. However, it is the researcher's skill to be able to reflect on the roles in the research subject and to distinguish between the role of the participating researcher and the observations made as a person (Vilkka, 2018). In addition, the success of the research process is affected by how well the researcher integrates into the research group, for example, in terms of age, gender and position (Aarnos, 2018). However, participatory observation has been criticized as a subjective and soft research method (Waddington, 1994).

Alongside the collection of theoretical literature, the case company's operations were examined by observing the day-to-day operations and attending the sub-unit meetings. Initially, the topic of the thesis was to describe the sales process in more detail, which is why the researcher spent a day individually with each of the three salespersons of the sub-unit of the case company. Although the research topic subject was further refined and limited to focusing on mapping the internal knowledge sharing practices rather than the sales process, the days spent with the salespersons provided useful insights and in-depth knowledge that were helpful to form an appropriate thematic design for subsequent empirical interviews.

In parallel, a few selected managers were interviewed to obtain in-depth knowledge about the case company and its ongoing and upcoming internal reform processes in order to be able to generate the interview themes and questions for the forthcoming employee interviews. The interviewed managers were the Regional Director and the Community Manager of the sub-unit of the case company, and Sales Director and Marketing and Communications Manager of the case company. Furthermore, the researcher reviewed the case company's external publications and websites, and received additional knowledge on, among other things, about the company's external intentions. Furthermore, additional information about the desired state for the knowledge sharing processes was received via e-mail.

4.2.2 Interviews

Theoretical Background of Theme Interviews

According to Valli (2018), a theme interview is a popular research method for collecting qualitative material. Besides the basic idea of an interview, which is simply to know what someone thinks about something, in theme interview the topics and subject areas are predefined. First and foremost, the selection and formation of the themes is the key thing in what kind of material can be obtained through an interview. Therefore, it is important to reflect the research problem, get well acquainted with the research topic and formulate the themes of the questions before conducting interviews (Valli, 2018). However, the questions themselves can vary, from a very free-form short list of themes to a very specific question (Eskola et al., 2018).

Typically, the semi-structured questions are used with theme interview (Hakala, 2017). According to Liamputtong (2013), semi-structured interviews provide an in-depth understanding of participants' perceptions, motivations and emotions as well as provide a more accurate insight of the desired topic. In addition, semi-structured interview as a method, assists to produce and group results that can be generalized beyond the sample group. Semi-structured questions can also vary, as some of the questions may be direct and some indirect, allowing the respondent to express their views freely. In addition, further questions may be asked to deepen the insights of the topic under discussion (Liamputton, 2013). Especially, when the interviewee answers open-ended questions, the interviewer has an important role as an assistant to move forward or interrupt a long discussion on issues on matters that may not be relevant to the research. (Liamputton, 2013; Eskola et al., 2018)

According to Liamputtong (2013) the challenge in interpreting the answers of a qualitative theme interview is that the researcher may misinterpret the interviewer's answers. However, the respondent means can be verified, for example, by the researcher reformulating the answer and ensuring it from the respondent. In addition, the interviewer must ensure that the respondents have enough time to form their answers (Liamputtong, 2013). Adherence to established practices for this type of research that as much knowledge as possible is obtained and that the study serves the research question and purpose, and yet remains concise. (Kananen, 2019)

Preparations for the Interviews

Initially, the preparations for the interviews begun already in autumn 2019, when the author of this thesis visited the case company's one sub-unit a few times and performed participant observations by spending time with the employees, by attending meetings, by reviewing company's publications and websites, and by interviewing the selected managers. In November 2019, together with the researcher and the Regional Director of the sub-unit of the case company and Sales Manager of the case company, a decision to study the flow of knowledge from the perspective of the operational employees was decided and a rough schedule of the interviews was agreed for February 2020.

However, the actual arrangements to establish the interview times with the interviewees was not made. This turned out to be a bit challenging. In the beginning of February 2020, the interviewer contacted the leaders via email about the topic and created an online calendar invitation with several interview time options. An online calendar Doodle was used, and the invitation was made with the intention of facilitating the appointment of interview times. Each invited to the interview received an individual email invitation to the Doodle calendar. However, by the end of the requested response time-margin, which was a 10 days' time period, only a half of the potential interviewees answered and chose their interview time via the Doodle calendar. The researcher asked for advice on the situation from the Community Manager of a sub-unit of the case company, who advised to contact other participants by telephone. This happened, and eventually all interviews were agreed to take place at the end of February 2020 in week nine.

The Interviewees

The sub-unit operational employees of the case company were used as the main data source and by the example of the sub-unit, the findings may be established to all the sub-units of the case company nationwide. In order to obtain the material in a versatile and comprehensive way, all employees participating in the operational activities of the sub-unit of the case company, five people at the time of the interview, were invited to participate and participated in the study. Thus, the interview sample of experts working in the sub-unit was one hundred percent (100 %).

The employees were interested in participating in the study, as it was believed to be helpful in developing the operations of their own sub-unit and the whole case company, and their opinions had not previously been collected in a similar way. In addition, the fact that the employees were aware of the study well in advance, ensured that the interview request was not a surprise to the employees and that the interviewees were committed to participate in the interview. All the interviewees had met the researcher a few times in advance and it can be said that the interviewer was intentionally familiar to the interviewees. This, in turn, helped to create a favourable atmosphere of trust and openness in the interviews. In addition, the researcher had previous professional experience with interpersonal skills, which enabled the interviews to be held in good collaboration with the interviewees. However, the researcher made sure that she was not too familiar with the interviewees and kept a certain distance between them. Therefore, it can be stated that the interviews were conducted in accordance with good research practices.

The topic was also perceived interesting and topical, and through previously made observations to utilize the organization's knowledge-sharing practices and competencies, a clearer model or description was also desired and expected. In addition, the study aroused different emotions and expectations, as well as to some extent, a critical examination of how the results will be obtained and, in particular, of how the gathered results will actually be used.

The interviews were held in the company premises of the case company's sub-unit. The interview environment was a familiar and easy place for both the interviewee and the interviewer to carry out the interview. Most importantly, the interviewee did not have to make any extra effort to participate in the interview. Thus, it can be stated that the interview did not disturb the employee's typical working day, except for the time spent on the interview.

Themes of the Questions and the Course of the Interviews

In total, the semi-structured interview questions were divided into four different themes, which were:

1. Background information on the use of the knowledge – the significance of relevant knowledge and knowledge sharing
2. Organizational factors influencing knowledge sharing - practices and places for knowledge sharing
3. Individual factors influencing knowledge sharing - motivation, trust and personal skills
4. Managing knowledge sharing and technology – management, existing systems and training

There was a total of 42 interview questions, about 10 items per theme, of which the most relevant were selected according to the answers and the time required for them. Four of the questions were asked as a numerical estimate between 1-10, where 10 was the highest and 1 was the lowest value. At first, the evaluation scale was supposed to be narrower, 1-5 or 1-7, but it formed as such during the first interview and the same scale was used throughout. The purpose of the questions evaluated by the number was to facilitate the formation of some generalizable and coherent knowledge of the interviewers' answers. Due to anonymity of the case company, the other interview questions are excluded from the study and are available from the researcher upon a separate request, with the exception of the four direct questions, which are mentioned in the results with the numerical estimates.

In total, five interviews were conducted with employees from the sub-unit of the case company. Additionally, three managers were interviewed face-to-face in terms to provide a background and to give an up-to-date overview of the current situation of the knowledge sharing practices from the management perspective. The interviews were conducted in Finnish as a face-to-face meeting over a time frame of approximately one hour. The interview questions for managers and employees were basically the same even if it was assumed that they have different perspectives on knowledge sharing due to their different roles and responsibilities. The differences with the questions to managers focused on their views on the status of the company process reform and on the organization's strategy for sharing knowledge.

The interviews lasted in a total of 9 hours 35 minutes, of which employee interviews accounted for 5 hours and 19 minutes and managers' interviews for 4 hours and 19 minutes. The approximately length of the interviews of employees were one hour and 4 minutes, where the shortest lasted 41 minutes and longest one hour and 13 minutes. The pre-agreed target time was one hour, and it was achieved. For managers, the interview time varied from 55 minutes to almost two hours and, hence, the average was one hour and 39 minutes. However, for them, there was no goal for an hour of interview time.

The interviews were recorded on a voice recorder system via researcher's laptop and mobile phone. In addition, a phone app called 'Speechnotes' was in use simultaneously with the voice recording system at the beginning with the intention of writing the spoken directly into text, but it did not work properly and was abandoned after the first few interviews. The transcription of the interviews was done with MS Office Word.

All interviews were recorded and treated confidentially. After the interviews, the researcher was able to transcribe the interviews into written form and compile them into an inductive content analysis. The recording also facilitated interview situations when instead of writing notes, the researcher was able to focus on the course of the interview, to the interviewee and guide the discussion around the topic. Interviewees answered a wide range of questions and highlighted a number of issues they considered important. The entire material of the interviews was gathered in February 2020 and a rough transcription of the data collected was done by March 15th.

All in all, the interviews were conducted with the aim to get additional insights into employees' knowledge sharing behavior and their perceptions of the knowledge sharing practices in a work context. Each theme was examined to gain an understanding of participant's perceptions towards knowledge sharing processes in the company. In addition, the prerequisites for the future reforms were mapped from the representatives of this study. As the interviews progressed, the researcher developed an understanding of the situation of knowledge sharing practices in the organization. The results of the interviews will be discussed next in more detail.

4.3 Introduction of the Case Company

This introduction of the case company is based on interviews with Communications and Marketing Manager and Sales Director of the case company as well as the Regional Director and the Community Manager of a sub-unit of the case company. Due to the anonymization, the case company is presented only very briefly. The case company is a Finnish company in environmental management industry, whose core business is waste disposal and waste facility operations. The case company has a long experience in the industry and operates nationwide in many locations in Finland.

The case company is currently undergoing a major reform of its core operations. The sub-unit of the case company, that is under exploration in this thesis, has served as a pilot office for some of the company-wide development projects, and therefore this specific unit and its operational personnel was selected for this thesis. All the ongoing and upcoming reforms and development projects require up-to-date knowledge, knowledge sharing, and knowledge management and, thus, they are seen as a prerequisite for the success of the reform projects.

4.3.1 Communications Development Project of the Case Company

In December 2018, a nationwide internal communications development project was started, covering all operations and functions of the company. Internal communication as a function is a part of the larger information and knowledge sharing development work. The internal communications development project is ongoing at the time of the study, and nominally the phases of the project are divided into first and second phases, of which the second phase began in December 2019 as it was on hold for a while and started again during spring 2020. In the beginning of the project in December 2018, a survey of the company's entire personnel was conducted, in which one of the major themes was issues related to knowledge follow and communication. Partly on the basis of these results, it was decided to start a development project.

The key objectives of the internal communications development project are better knowledge sharing and better use and utilization of knowledge. In addition, improvements in transparency, equality and overall continuous improvement in communications are important goals to achieve. Currently, the situation in the internal communications development project is that the first workshops are held, and based on them, a constantly evolving action plan has been created. In addition, in the future a roadmap will be created for the development project of the internal communication together with Director of Development of the case company, who has just started working for the company. However, some of the best practices developed during the project are already implemented and in use in the company.

Managing the flow of knowledge, such as how it is shared and how it would be better to share and utilize in the future, is a very topical issue in the company. Knowledge management and knowledge sharing practices are a crucial part of top-level management and they plays a significant role throughout all development work in any process and development work. Therefore, in the company-level development work, the desired state of the operating models of management practices are described. Knowledge sharing, and knowledge management are an integral part of today's management in practice, as the knowledge gathered on the topic is particularly important when making informed decisions in day-to-day management.

However, even if knowledge management and, especially, leading with knowledge, has been recognized particularly important for all operations and development projects of the company, a detailed mapping of the knowledge sharing practices and how to manage them has not yet been done. Therefore, this study provides a preliminary mapping of the barriers and enablers that influence the company's internal knowledge sharing practices from the employee's point of view.

4.3.2 Background of the Interviewees

The participants of this research, i.e., the employees of the sub-unit of the case company, represented different work positions and varied work roles. They all were working for the so-called operational function of the company, as three of them were working with sales and two of them were operating with drivers and production. Owing to the nature of these different work roles, the interviewees' supervisors were different individuals. Similarly, the length of the employees' career varied. At the time of the interviews, one of the interviewees had been involved in company changes for a long time and most of the interviewees had worked for the case company approximately two years. Moreover, previous experience in the environmental industry varied, as some of them had previous experience from the industry and others did not. However, all interviewees had work experience from their previous employment.

In conclusion, the interviewees were group of experts with different backgrounds, skills, and responsibilities. The interviewees in this thesis are treated as one group and opinion, due to the fact that the case company and the sub-unit of the case company are small, and only five employees were interviewed. In addition, it has been agreed with the interviewees that they will not be highlighted as individuals in the study and, thus, they have spoken openly.

5 RESULTS AND ANALYSIS

This chapter describes and discusses the findings of the study. The objective of this thesis is to provide a preliminary mapping of the barriers and enablers of the internal knowledge sharing practices from the employee's point of view and, thus, contribute to the prior knowledge for the upcoming reform of the company's future communications and internal knowledge sharing. The results from the interviews provide comprehensive and detailed knowledge about views of the internal knowledge sharing practices of the selected operational personnel of the sub-unit of the case company. Thus, the results answer to the main research question identified in the first chapter: *'How can knowledge sharing practices support internal knowledge sharing and its management in SMEs?',* and especially, to the third supporting research question, *'How can internal knowledge sharing practices be developed within a SME?'*.

As presented in the previous section 4.1., to understand people's perceptions, a qualitative case study research approach and a semi-structured interview deem to be an appropriate method and was chosen to gain holistic insights from the employee's perspective of the internal knowledge sharing practices. To simplify the presentation of the results, the findings are divided into organizational and individual factors, which are again divided into barriers and enablers of the internal knowledge sharing practices. It is noteworthy that the themes are presented in findings are in different order compared to how the themes were discussed during the conducted interviews. Each subsection addresses the themes raised in the topic and analyzes their significance in the context of the research. Furthermore, the citations highlighted in the material are chosen to best reflect the views of the interviewees. Finally, the barriers and enablers of both the organizational and the individual factors are illustrated as own SWOT analyses.

5.1 Organizational Factors

5.1.1 Identifying the Organizational Barriers

Next, the organizational barriers to knowledge sharing practices are discussed in more detail. Later, in section 5.1.3, the threats and weaknesses of a SWOT analysis are defined based on the barriers defined herein. The order of the barriers is as follows: the most critical barriers, threats, are identified first, followed by the less threatening factors that are recognized as weaknesses. However, no distinction is made between the two groupings in this context and the barriers are presented as a single list.

Special Emphasis Is Not Placed on Knowledge Sharing

Initially, the importance of knowledge and knowledge management in the organization in general was discussed in the interviews. The different stance to knowledge was discussed and the availability and discoverability of knowledge, and the timeliness of knowledge came up in the discussions with interviewees and are considered very central to everyone's work. However, concepts related to knowledge accumulation and sharing, and knowledge management are not very familiar concepts in everyday life in the organization's everyday practices. Comments such as *"knowledge sharing is still in its infancy"* and discussions related on the use and share of knowledge revealed that special emphasis has not yet been placed on knowledge management operations.

One of the four questions asked for a numerical estimate was a question whether the employees were satisfied with the current flow and sharing of knowledge in their everyday life in the Turku unit. The actual question was: *"How satisfied are you with the current flow and sharing of knowledge in your everyday life in the unit?".* The numerical average of this question was 5.7 on a scale 1 to 10, which was the lowest value obtained from the four numerical questions. Certainly, it was clear that tackling this issue was important and needed improvement.

Lack of an Official and Shared Policy for Knowledge Sharing

The lack of an official policy and a unified communications plan for knowledge sharing emerged immediately in the interviews. According to the common view of employees, the company does not have or at least have not informed about a unified communications plan or a knowledge management strategy. In addition, employees' responses indicated that the company has fragmented ways of storing and sharing knowledge, which contribute to the consequence of uncontrolled information channels. For instance, a massive amount of e-mails was mentioned as one of the factors hindering knowledge sharing. As a practical example, the lack of common rules and policies is reflected in inconsistent outlook calendar settings. In particular, it was experienced that transparency and, thus, the flow of knowledge is not facilitated if the calendar settings are not open in an adequate manner.

The lack of an official policy for knowledge sharing, which everyone follows was leading to fragmented ways to share and store knowledge. Although the stance on official channels for sharing information was considerable consistent, informal approaches to internal information sharing varied. Some stressed the importance of common coffee breaks and others considered their own activity and phone calls to colleagues all over Finland too be important. Apparently, among the drivers, a WhatsApp application with three different communication groups are in use. However, this was not found a valid and desirable channel for communication between other employees. For example, there were concerns that communication would become too informal through such channels, and it was not desirable for knowledge to be fragmented in many different places.

Lack of Transparency

The lack of transparency played a surprising large role in the discussions. In previous participatory observations made prior to the interviews, this issue did not seem as self-evident as it was in the interviews. Based on the interview responses, in order to increase the flow and sharing of knowledge, the management should increase transparency in every operation and development project. One comment on the topic was: *"the organization is constantly evolving, and job descriptions and personnel are changing and in general, there is poor knowledge sharing from the top-level management":* However, employees did not expect or want too detailed knowledge on all development projects but, for instance, some mid-term reviews or progress reports were desired.

It should be mentioned, however, that the respondents felt that in some ways, the flow of knowledge and transparency has been improved a lot recently. One of the respondents stated that: *"with a new company-wide development project, it was good that a person of the project (an outsider of the company) visited here in the sub-unit premises every Monday for a couple of hours and explained the progress of the project and was available for any further questions of the topic"*.

One-sidedness of the Knowledge Flow

The direction of the knowledge flow and how the interviewees experienced the current flow of knowledge within the case company were discussed in the interviews. Comments on the subject varied. Some comments were more positive, and the respondents had seen improvements herein lately, while some commented that the flow of knowledge was perceived as one-sided and sometimes even commanding. For example, one positive comment was *"the knowledge flows just enough to my needs at least, and without a doubt I can have a chitchat with anyone if I feel like it, both the managers and personnel",* and one comment in between was *"this (the flow of knowledge from one-way to two-way) has improved in last few months, but unfortunately we do not have such an open in-house atmosphere or culture and, thus, we do not have too open discussions about things"*, and one a slightly negative comment was that *"sometimes the instructions just drip down from the management and there is no space for any discussions".* However, one-way knowledge as top-down direction was perceived as impediment for the sharing of knowledge within the organization.

Unclear Roles and Responsibilities of the Managers

The roles and responsibilities of the managers raised questions and uncertainty among the employees. As mentioned earlier, the interviewees have different supervisors, which in their view, probably influenced this opinion. Owing to the unclear roles of the managers, the employees feel that they are required to be answerable and sort out the same issues with many managers. For example, the necessity for many managers to involve in pricing processes, has remained unclear. One comment on the topic was: *"the Regional Manager and Sales Manager would already have enough to deal with the pricing of the bids, and that should happen without having to discuss with three different people of this. This takes everyone's time in vain".* Hence, unclear roles and responsibilities of the managers may prevent knowledge sharing.

Inappropriate Tools and Systems

The existing tools and systems for knowledge sharing did not garner praise and were found to be inappropriate for knowledge sharing. For example, one interviewee aptly stated that: "*the purpose of a good tool for knowledge sharing is to make the work easier and not more difficult, but now it is not the case"*. At the time of the interviews, the main channels for sharing knowledge were e-mails and a series of different meetings either face-to-face or through Skype or Microsoft Teams. In addition, the information boards implemented last autumn 2019 have been in use since then.

It was mentioned that it is the responsibility of the management to provide the right tools for knowledge sharing. A relevant comment on this was that: *“a good tool is one that meets its needs. The key thing in storing knowledge is to avoid doing it multiple times, which is the problem now”*. This commentary again reflects a general dissatisfaction with the company’s current tools and practices for sharing knowledge.

However, a there has been discussions to acquire a company-wide intranet, but no final decision has been made about it in the case company. Both the management and the employees are eagerly anticipating the upcoming intranet. The lack of the company intranet was clearly perceived as a very big flaw in the organization, which impedes knowledge management and up-to-date knowledge flow. Comments like *“it is a bit stupid to struggle with the same problems someone has already solved”* and *“after all, it is just silly that there is no centralized information on, for example, raw materials markets, or the subcontractors used”* reflect the urgent need for a company-wide information sharing platform, such as intranet.

The amount of knowledge shared through emails was also considered to be excessive and, in many ways, uncontrollable. Among other things, comment on the subject was as such: *“…email is a great way to share information, but often there are too many and unnecessary messages. This results in them not being read or delved into as they certainly should be”*. Correspondingly, the practices in using holiday absence messages and calendar settings vary. *“As Outlook calendar entries are just marked as 'busy', it makes difficult to organize joint appointments and, thus, does not help or facilitate the flow of knowledge, and nor does it increase transparency”*. Therefore, common rules, consistency and, above all, more transparency would be needed for the management of e-mail and calendar.

Company Values are not Displayed Locally

The unclear roles in management and the lack of an official and shared policy for knowledge sharing are also reflected in the visibility of the company’s values in everyday life. The case company’s three core values were discussed in the interviews. It must be said that none of the interviewees, neither the employees nor the management, remembered the all three case company's values. Thus, it can be stated that the core values of the company are neither reflected in the workplace, nor at least as strongly in the everyday work as the management might have thought.

From the employees' point of view comments around the subject were *"no, they are not revealed in daily work. Because of this reform project, the values of day-to-day management are now more talked about, but these (core values) are not passed on to employees"*. Especially, one of the core values 'courageously' was not remembered by the management of the employees. This was commented as *"could it be so that we do not act boldly / as such, then"*. One who remembered only one of the core values of the case company, commented that *"well this shows that we should do things together and boldly (as they were the two core values I did not remember), but I believe we probably only do things now in a sustainable manner (according to the value I remembered)"*. Nevertheless, these comments around the subject does not mean that the company's values are not conveyed in everyday life. As some of the interviewees mentioned, perhaps the values are passed on in such a manner that it is not memorable, or, they may not be fully credible as they are not reflected in the company's daily operations.

Lack of Co-Operation Between the Sub-Units

It is also noticeable, that at the time of this thesis conducted, there was no fluent interaction, discussion nor knowledge sharing with other units within the organization. Comments around the topic were as: *"unfortunately, it seems like everyone has been in their own bubbles"*. However, the reform in this regard had already began and, for some employees, a couple joint meetings with representatives of the different sub-units had already taken place. In addition, there was a strong believe that the ongoing reform project would increase and improve the exchange and sharing of knowledge between the sub-units. Moreover, the employees were eager to get to know the staff in other localities.

Irregular Feedback and the Lack of Monitoring

In addition, irregular feedback and a lack of monitoring and remuneration by management was identified to potentially impact negatively on knowledge sharing practices within the organization. Employees stated that *"there are no rewards of or any tracking for knowledge sharing"* and suggested that *"it would be good to have some kind of metrics* *and follow-up so that everyone would be provably involved in sharing knowledge".* However, employees believe that even small improvements and just positive feedback would make the attitude more positive for knowledge sharing. Comments like *"just encouraging feedback would be enough"* and "*some kind of rewarding would be nice, but most importantly doing something together would be important. Us (employees) should be asked what motivates us and, for example, just having an ordinary meeting in a different location does not do much of a difference"* illustrate that employees were not demanding about the potential incentives they would like to receive. Moreover, comments about the company's typical reward practices came up, of which one was that *"not everyone likes a drinking party, and the pre-Christmas party usually is only suchlike. For a change, we could also do something else as, for instance, go to a theatre".*

Discussions also raised doubts about how to guarantee the quality of knowledge and how to know who is sharing what kind of knowledge. However, in the interviews, it was agreed that the knowledge gathered should be of high quality. In addition, discussions emerged that that employees do not know whether their development ideas have been taken forward at the management level. Comments around the topic was like this: *"at least I do not know that the information has been carried forward, sometimes it feels like managers are ignoring the knowledge coming from the employee".* All respondents believed that more feedback should be sought from all employees and that the flow of knowledge should be two-way, or rather three-way, as customers should also be regularly asked for objective knowledge.

Unplanned and Unfocused Meeting Practices

Unclear meeting practices came up in every discussion and were clearly regarded as a barrier to knowledge sharing. Employees felt that they had participated in unnecessary meetings during their professional career in the case company. The main problem was considered to be that meeting practices were unplanned and largely focused on reviewing the results. One specific comment about the topic was *"the sub-unit's weekly meetings are not working properly. All we do there is follow the presented numbers and results, which are important of course, but it just does not feel very focused and, at least, this kind of presentation style does not inspire employees".* According to the interviewees, this was again due to the ambiguity of the processes and the lack of agreed roles of managers and responsible persons.

However, as mentioned by both the management and the employees of the company, just before the interviews, the meeting practices of the sub-unit were moderated. The management also believed that the goal of each meeting should be predetermined to save everyone's time and energy. In addition, the employees' comments around the subject supported the same idea: *"what matters is what is done there (in a meeting), and it is useless to just have a meeting only to be able to say that we are having meetings"*. In addition, if a person is not participating in the meeting for one reason or another, as for example, sometimes some people have to be on call due to drivers, the managers do not go through the material used in the meeting with the person who was absent. After the meeting, the contents of the meeting will be emailed to everyone and it is assumed that all those who were unable to attend will also read and familiarize themselves. However, in doing so, the intangible matters discussed in the meetings are not passed on and are not shared to everyone.

In summary, the organizational barriers to knowledge sharing practices include:

- Special emphasis is not placed on knowledge sharing
- Lack of an official and shared policy for knowledge sharing
- Lack of transparency
- One-sidedness of the knowledge flow (top-down direction)
- Unclear roles and responsibilities of the managers
- Inappropriate tools and systems
- Company values are not displayed locally
- Lack of co-operation between the sub-units
- Irregular feedback and the lack of monitoring
- Lack of training and orientating
- Unplanned and unfocused meeting practices

Next, the enablers of organizational knowledge sharing practices are addressed.

5.1.2 Identifying the Organizational Enablers

This section discusses in more detail the enablers of organizational knowledge sharing practices. Later, in the next section 5.1.3, the strengths and opportunities of a SWOT analysis are defined based on the enablers herein. Therefore, the factors that best support the organizational knowledge sharing practices are listed as strengths, and opportunities are the factors, that enable already some knowledge sharing but by further strengthening them, knowledge exchange practices can be improved. However, no distinction is made between the two groupings in this context, and the enablers are presented as a single list.

Relatively Small and Hierarchically Low Organization

Although there seem to be a number of organizational barriers to knowledge sharing, there were also some enablers within the organization for knowledge sharing. The first and significant finding was that all interviewees share the common vision of that sharing knowledge is a part of everyone's job. For example, many of the interviewed directly mentioned that *"everyone who enjoys a salary from the company is responsible for knowledge share"*. Moreover, both the organization and the sub-unit level were considered relatively small and hierarchically low which, in turn, encourages and enables the knowledge sharing. Comments around the topic was that *"the leaders are very near and at the same premises, if some knowledge needs to be asked or shared. And by phone or Skype-meeting the rest (of the leaders) can be reached"*.

Company's Willingness to Reform the Operations

The case company is ongoing a company-wide reform of its core businesses, which includes communications and knowledge sharing operations. This willingness to reform its operations is seen as a major opportunity both in terms of communications and knowledge sharing practices. At the time of the study, already some changes and improvements were established, for instance, some of the interviewees had participated in newly launched joint meeting days across the sub-unit boundaries. These were found very useful for knowledge flow and share. As stated in this comment: *"the processes have been unclear, and now there are clear attempts to work with them through the on-going new company-wide business-project"*, despite the past inconsistencies in development projects, the employees expect the future reforms to be optimistic.

Recent Improvements to Some Meeting Practices

In addition, encouraging comments on increasing knowledge sharing were, for example, *"we are clearly moving in the right direction"* and *"newly launched Skype and Microsoft Teams are functional tools"*. In the words of employees, the meeting practices have been really scattered but at the time of the study, in the beginning of the year 2020, some changes were done to meeting procedures and they are expected to become more reasonable.

<u>Opportunity for the Forthcoming of a Common Intranet and a New Comprehensive CRM System</u>

Although at the time of the interviews a formal decision is not confirmed about acquiring a company-wide intranet and a new comprehensive CRM system, there was discussions about the possibility that both the new customer management system and the company-wide common intranet may be launched in the future reforms. These both reforms were seen as a very positive and desired changes among the respondents. Indeed, it seems that that there is a strong belief among the employees of better future and positive improvements in knowledge sharing. In the words of employees, *"the company has given a green light that we are finally getting the right tools to use"* and *"most importantly, it seems that the leaders of the company have finally been awakened that we need suitable tools to do our jobs"*.

<u>Company Premises Support Knowledge Sharing</u>

The newly launched information boards in the company premises have been well received. Especially, the production side of the company, including the drivers and their supervisors, benefits concretely from these in sharing knowledge. In addition, the company premises are felt to be supportive or at least not directly prevent the sharing of knowledge, as it was mentioned that "*the workspaces are nice, and it is good that we all operate under the same roof"*. Apparently, some years ago the drivers used a completely separate premises than the rest of the company's sub-unit employees. In addition, enhanced attention has recently been paid to the driver's knowledge and information. In order to gain and share recent and timely knowledge from the customers, arrangements have been made for drivers' supervisors to be present and available for discussions with drivers as they return to the sub-unit's premises after the transportation route.

In summary, the organizational enablers to knowledge sharing practices are:

- Relatively small and hierarchically low organization
- Company's willingness to reform the operations (which includes communications and knowledge sharing operations)
- Recent improvements to some meeting practices

- Opportunity for the forthcoming of a common intranet and a new comprehensive CRM system
- Company premises enable knowledge sharing

5.1.3 SWOT Analysis of the Organizational Factors

Based on the previously defined results of the study in sections 5.1.1. and 5.1.2, a SWOT analysis was conducted of the organizational factors that influence the knowledge sharing practices of the case company and is presented in the Figure 14. The SWOT analysis is a summary of the pertinent strengths, weaknesses, opportunities, and threats, of the case company's knowledge sharing practices, and the organizational barriers are identified as threats and weaknesses, and the organizational enablers are described as strengths and opportunities.

Figure 14. The SWOT Analysis of the Organizational Factors that Influence to the Internal Knowledge Sharing Practices.

Next, the individual factors of knowledge sharing practices are addressed and discussed in more detail.

5.2 Individual Factors

5.2.1 Identifying the Individual Barriers

Next, the individual's barriers to knowledge sharing practices are discussed in more detail. Later, in section 5.2.3, the threats and weaknesses of a SWOT analysis are defined based on the barriers defined herein. The order of the barriers is as follows: the most critical barriers, threats are identified first, followed by the less threatening factors that are recognized as weaknesses. However, no distinction is made between the two groupings in this context and the barriers are presented as a single list.

Loss or Change of Knowledge

Data, information, and knowledge loss and uncontrolled knowledge change were identified as barriers to knowledge flow and knowledge sharing. According to the interviewees, knowledge is lost or changed frequently, even several times a week. Hence, there have been situations that the real-time pricing information has not reached the salespersons on time. In addition, customer price revision situations, among other things, have been problematic due to data breaks, as commented on *"there have been situations where no one has updated customer prices and, well, that is not a good thing at all"*.

Furthermore, finding relevant knowledge takes a huge amount of time in vain. Based on the interviewees' comments, such as *"sharing knowledge takes a few percent of my working time, but finding the relevant knowledge takes almost a third of the working time"* and *"basically 100 % of the working time goes to finding out or sharing knowledge, no matter what's the job",* it can be concluded that everyone constantly uses and seek knowledge in their daily work. Many of them found that they are searching for the up-to-date knowledge almost throughout their working hours and, thus, the timely knowledge would be highly desirable. Consequently, timely knowledge would ease everyone's work tremendously.

Atmosphere Issues

Non-interactive communication was seen as a barrier to knowledge sharing and was associated with a low appreciation of the employees. The interviews showed that some of the employees felt that not everyone appreciated the employee's input. Apparently, personal chemistry may not work with everyone. Comments like *“sometimes it feels like we are pretty easily blamed”* and *“I don’t know why, but I guess I dare to say that sometimes it feels like the organization and management are looking for the culprits in us (the employees)”* were surprisingly straightforward and described that there was a feeling of low appreciation of amongst the employees. Therefore, there was a sense of frustration and some of the respondents had a feeling of ‘giving more than you get’. For example, educating others is not rewarded separately but is assumed to be part of the job description. At times, the employees felt they were making more personal sacrifices for the work than they really wanted, as mentioned that *“there were no options but doing so, the work has to be done anyway”*. Furthermore, a lack of a suitable staff substitution system was also thought to have a negative impact on the knowledge sharing and the atmosphere in the case company.

Due to the sensitive nature of the subject, the topic was approached with a numerically evaluable question. The actual question was: *“How would you describe the atmosphere in the sub-unit, numerically on a scale of 1-10, where one is the lowest value and the 10 is the highest?”*. As a result, the average of the atmosphere of the sub-unit of the case company is 6.2, which was the second lowest value obtained from the numerically estimated questions. In the words of the employees, management could support and encourage the employees more often. Comments around the subject were as follows: *“support for my work is pretty poor at the moment”, “it feels that the employees’ appreciation is not properly reflected or, at least, felt”,* and *“some kind of extra encouragement would be good, and positive feedback is needed, and it is yet free”*.

Lack of Trust and Share-hoard Dilemma

Continuing with the previous topic, a lack of trust among people turned out to be the biggest barrier that effects on knowledge sharing. In turn, this impacts on the individual’s motivation to share knowledge within the organization. The topic was expressed in various ways in the interviews, and comment such as the following confirmed that there were some shortcomings in trust: *“there is not the best trust at the organization. Perhaps it could also be due to the fact that there has been quite a lot of personnel changes in short period of time”.* Moreover, problems related to withholding knowledge emerged, as commented *“it seems that there are some attitude issues, I guess some are thinking that knowledge is power, at least the leaders might think so”*. Keeping knowledge to oneself is typically described as a share-hoard dilemma. Anyhow, all respondents felt that they had no reason to hoard their knowledge to themselves and were willing to share their knowledge to others. Typical comments around this subject was *"we are doing work together and there is no point in hoarding knowledge to oneself"* and *"I have no reason not to give all the knowledge I have"*. Thus, it can be said that the employees feel that their work is strongly related to the sharing of the knowledge they acquire.

Lack of Training and Orientation

Lack of training and orientation emerged in almost every discussion with the employees and was seen to have a major impact on both individual's willingness and skills to share knowledge. Comments like: *"usually new software is announced and everyone learns themselves"* and *"we are not asked if you need education and the attitude seems to be that employees do not need any help or education, which is not true, and even now when we have had some more education due the reform process, it has been really liked"* describes the feeling of employees to be left sometimes or partially without organizational support. However, to overcome this barrier, a solution mentioned was, for example, that *"management should stop assuming things and ask our opinions of the needs for training"*.

Additionally, over time, there has been a talk of a unit-specific trainer for some of the most important programs. An agreed trainer would provide the most up-to-date knowledge to all members of the sub-unit and would be responsible for training a particular system for others. However, this development idea has not yet been implemented. Nevertheless, the need for ongoing training and maintenance of training was strongly highlighted in the interviews. In addition, apparently new employees do not have a separately agreed orientation plan, but in the beginning, some more experienced employees introduce them to the most important things. Furthermore, there are occasional joint trainings on specific topics to which new people can be sent. Interviewed employees felt that orientation for the new employees is a part of their job, but it does increase their own workload.

In addition to the above discussion, there were some shortcomings in the orientation tools. For instance, an indispensable tool, an own separate driving display in the driver induction, was missing. After further discussion, it became clear that a new employee is inducted by a more experienced driver while driving the typical driving route. However, the new person cannot follow the events in real time as she or he cannot reach to see what the driver has on his or her driving display. Employees believed that the scarcity of the driving displays was probably a monetary problem, as stated: *"it is clear that the new person should have their own screen to monitor and learn how the driving system works during the drive, but the issue has been mentioned several times to the managers and it has not been addressed. Now an experienced employee has to stop the truck and show the new person what she or he did, and that, in turn, slows down the day"*. Nonetheless, employees unanimously state that training and orientation of both new and existing personnel should be done in a motivating manner, and, in particular, orientation must be an appropriate and considered entity from the outset. In addition, well-functioning knowledge-sharing practices was seen to play a significant role in successful training and orientation.

<u>High Staff Turnover</u>

Personnel turnover was perceived as having a negative impact on knowledge sharing and have had a big impact on the knowledge loss of the company. Moreover, the sub-unit's staff has changed frequently over the last couple of years. One of the respondents summarized *"one of the employees who has left our company kept all the knowledge with oneself and as she or he left the house, the knowledge disappeared, too"*. Another comment on the subject was that *"when personnel change, all the development projects remains unfinished, and a new person cannot really develop things until he or she has learned certain basics. This again, takes time"*. In addition, some respondents also felt that the atmosphere and appreciation problems have contributed to high staff turnover.

<u>Dependence on Individual Knowledge</u>

Related to the topic of personal turnover discussed earlier, one major barrier to knowledge sharing is the dependence on individual knowledge. So far, the organization has not accumulated organizational knowledge, and the existing knowledge is strongly person-centered. In addition, the knowledge is mainly tacit knowledge, since the current systems for knowledge are not suitable for storing knowledge, or even if the knowledge is stored, it will not be found for further use. According to comments around the topic, this is due the fact that there have been multiple different policies how the knowledge is added into the systems. The topic was commented: *"for example, it is pointless to add knowledge* *into the current CRM system, since you cannot find it afterwards, especially if you do not remember the exact keywords you or someone else have used. We have had multiple policies in using different keywords and, thus, it is not convenient or useful system at all".*

The interviews revealed that the company does not have a directory or any search service for individuals' qualifications or knowledge. As mentioned aptly by one respondent, *"there is no general knowledge gathered anywhere, but by calling colleagues and searching through your own networks, things are clarified. Sometimes this takes a lot of time"*, individuals' own activity and familiarity with the skills and knowledge of others is particularly important as well as highly personal.

In summary, the barriers to individual knowledge sharing practices are:

- Loss or change of knowledge
- Atmosphere issues
- Lack of trust and share-hoard dilemma
- Lack of training and orientation
- High staff turnover
- Dependence on individual knowledge

Next, the enablers of individual's knowledge sharing practices are addressed.

5.2.2 Identifying the Individual Enablers

This section discusses in more detail the enablers of the individual's knowledge sharing practices. Later, in the next section 5.2.3., the strengths and opportunities of a SWOT analysis are defined based on the enablers herein. Therefore, the factors that best support the individual's knowledge sharing practices are listed as strengths, and opportunities are the factors, that enable already some knowledge sharing but by further strengthening them, knowledge exchange practices can be improved. However, no distinction is made between the two groupings in this context, and the enablers are presented as a single list.

Personnel's High Motivation to Share Knowledge

It was clear right from the beginning that the individual's motivation to share knowledge was high. To better describe the level of motivation, this question was also asked as a numerical estimation and on the same scale as the previous numerical questions, that is, between 1-10, where 10 is the highest and 1 is the lowest value. The actual question was: *"How motivated are you to share knowledge in the organization?".* The average of the employee's motivation for sharing knowledge was 8.9, which was the highest value of all the questions answered by a numerical estimate. In other words, the result obtained illustrates that the employees are highly motivated to share knowledge to each other and within the organization. In addition, commenting around the subject confirms the respondent's great motivation to share knowledge: *"sharing knowledge is a matter for everyone who gets paid by the company", "if someone asks for help, I surely will give every knowledge I have",* and *"it is a part of everyone's job (to share knowledge each other) and no one can be held accountable for that".*

However, creating a culture of openness to knowledge sharing was considered to be management task and increasing transparency in operations was highly desirable. Continuing with this, among the employees, there is a deep appreciation for the industry and the work itself. This was aptly formulated by one interviewee: *"this is a really important industry and job, and if nobody did this, we would all be in a big trouble".*

Personnel's Willingness for Informal Meetings

One important factor to enable knowledge sharing was employees' own willingness to organize and participate in informal meetings in the sub-unit. For example, the employees of sub-unit of the case company have a routine to gather to have a morning coffee break together, as said *"we have an unwritten rule that all staff members gather for morning coffee together. The management level is not there early enough to be involved in this".* In addition, some employees have common lunch breaks. During these informal meetings and situations, knowledge is also shared and exchanged.

Moreover, the respondent's own willingness to gain and share knowledge is also reflected in the fact that colleagues within the organization were also contacted actively by phone. Some employees found it very easy to approach and ask for help, even if they did not know each other in advance.

Professional and Skillful Personnel

The respondents considered themselves as relatively good distributors of knowledge and praised the general skills of their colleagues: "*we have professionals in the house"*. However, the assessments of others' and own personal skills on using the knowledge sharing systems varied. Some of the respondents felt that the incompetence of others even partially encumbered their own work, as stated: *"could everyone just learn how to use our daily programs"*. It was mentioned that also managers should know how to use the systems, as was said: *"now the outputs do not look very professional or brand-like"* and *"if you do not bother or do not know how to do things yourself, you easily waste other's time"*.

The level of one's skills to share knowledge was again asked to be evaluated as a numerical estimate. The actual question was: *"What is the value of your own skills in sharing knowledge? Evaluate your current skills on a scale of 1 to 10"*. The average number of interviewees evaluation of their personal skills to share knowledge was 7.7, which was the second highest value perceived of the four numerically estimated questions. Even though the average number was not at the concerning level, there is still room for improvement. However, the attitude of employees towards the new technologies and tools and systems were very positive. Even the ones who expressed that their own skills might need some improvement, had a desire to learn more and were looking forward to implementation of the new systems. Furthermore, all interviewees shared the same vision that the individuals own skills plays a great significance in sharing knowledge. In other words, there was no noticeable resistance to the new tools and technology but, on the contrary, they were eagerly awaited.

Learning from Each Other and Adopting the Best Practices

Learning from each other and the implementation of best practices across the organization was just initiated at the time of the interviews were held. Those who had worked in the unit for a long time, in particular, had a deep expertise in their field as well as a relatively comprehensive overview of products and services. In addition, experienced employees had responsiveness as well as caution and a realistic view of the operations of the unit. Although new employees have not yet preceded to gain deep expertise in the industry, they had other important skills, such as knowing how to focus on the essentials, using their intuition, and being able to anticipate. Moreover, the relatively new staff have fresh ideas that could benefit both the sub-unit and the case company, if the best practices from their previous jobs would be utilized. Similarly, especially the knowledge of the experienced individuals would benefit the organization across unit boundaries, if the knowledge would be captured and stored for further use.

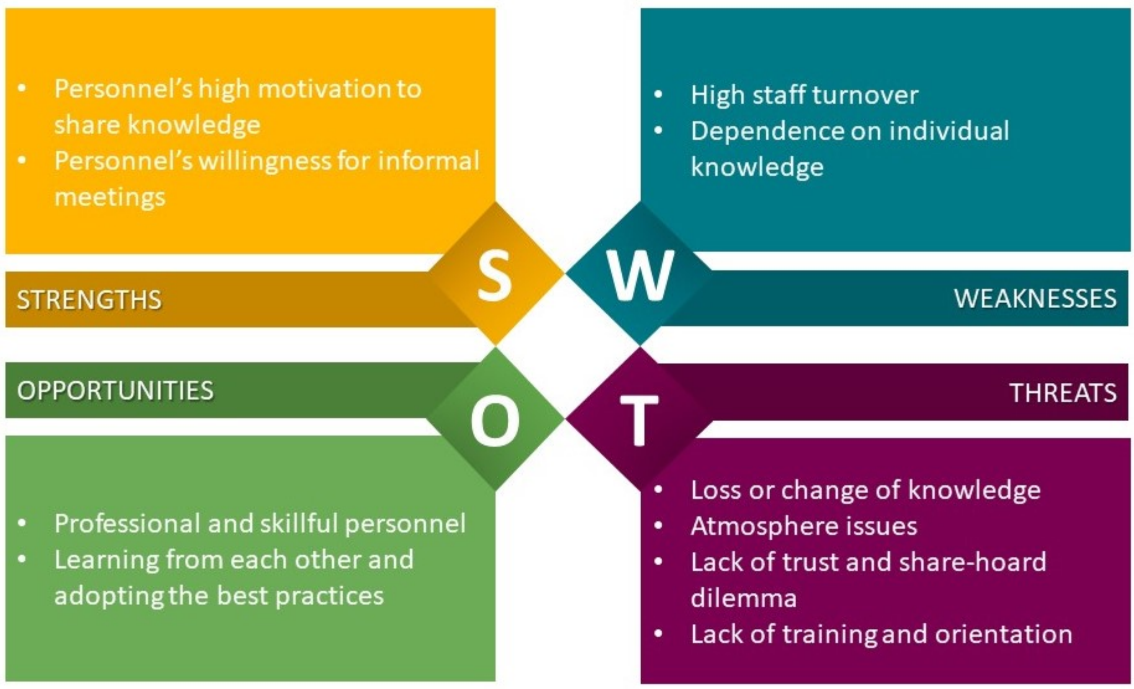
In summary, the individual enablers to knowledge sharing practices are:

- Personnel's high motivation to share knowledge
- Personnel's willingness for informal meetings
- Professional and skillful personnel
- Learning from each other and adopting the best practices

5.2.3 SWOT Analysis of the Individual Factors

Based on the previously defined results of the study in sections 5.2.1. and 5.2.2., a SWOT analysis of the individual factors that influence the knowledge sharing practices of the case company was conducted and is presented in the Figure 15 below. The SWOT analysis is a summary of the pertinent strengths, weaknesses, opportunities, and threats, in which the individual's barriers are identified as threats and weaknesses, and the individual's enablers are described as strengths and opportunities.

Figure 15. The SWOT Analysis of the Individual Factors that Influence to the Internal Knowledge Sharing Practices.



5.3 Summary of the Results and Analysis

This chapter reported the results of the qualitative research and grouped the factors that improve and inhibit the flow of knowledge and knowledge sharing practices in the sub-unit under study. The factors were divided into both organizational and individual factors and the SWOT analyses of organizational factors (Figure 14) and individual factors (Figure 15) summarized the research outputs. In addition, the key content of each category was written openly and illustrated with citations taken from the interview material.

All in all, a mapping of the current situation of knowledge sharing practices and knowledge sharing related issues from the employee's point of view was needed and it provided a huge amount of knowledge for future development areas. In addition, as was done in this thesis, when outlining the initial situation first, it is easier to find and define priorities and means for further research. Next, Chapter 6 reflects the empirical findings with the literature, and answers the research questions. Furthermore, a proposal for action for further development is provided.

6 DISCUSSION

In this final chapter, conclusions and contributions are drawn by answering to the research questions and presenting the key findings from the research in relation to the reviewed literature. The thesis results in an action proposal to supplement the case company's communication and knowledge management action plans. In addition, implications of the reliability, validity and limitations of the thesis are discussed. Lastly, the thesis concludes with recommendations for future research.

6.1 Main Findings of the Thesis

This chapter presents the main findings from the research results obtained in relation to the reviewed literature. It is noteworthy that although the factors influencing internal knowledge sharing practices and knowledge management have been found in several different studies, an unambiguous solution to the challenges of the case company cannot be found directly in the literature, as knowledge sharing, and knowledge management always depend on the context, in which it takes place.

In addition, this chapter completes the response to the third and final research question: *'How can internal knowledge sharing practices be developed within a SME?'*. The findings are themed into four different categories and, based on the reviewed literature and the research results, proposals for action are derived to supplement the communication and knowledge management action plans, as well as other future development activities of the case company. Therefore, this chapter covers a response to the main research question of this thesis identified in the first chapter: *'How can internal knowledge sharing and knowledge sharing practices be better managed in small and medium-size enterprises (SMEs)?'*.

6.1.1 Development Proposals to Supplement Action Plans

Based on the observations and the interview responses identified in the SWOT analyses in Chapter 5, four main themes of the both organizational and individual barriers are formed. The first theme identifies the primary problem of the case company, which is the lack of an official and unified policies for knowledge sharing and knowledge management. The second theme deals with the issues of inappropriate tools, training and orientation. The third theme addresses leadership issues, such as managing with knowledge as well as the unclear roles and responsibilities of managers. Finally, the fourth theme designates the needs of individuals and suggests increasing the participation of individuals. The themes are discussed next in more detail.

Define the Official and Shared Policies

At the time of the study and from the outset, when the researcher became acquainted with the case company and the sub-unit of the case company under study, it was apparent that no special emphasis had yet been placed specifically on the knowledge sharing practices. However, knowledge and, in the words of managers, especially leading with knowledge was identified as necessary and changes and improvements were expected with this in future development projects. The results of the interviews of the operational staff of the case company's sub-unit confirms that the case company does not have an official strategy for the knowledge management and knowledge sharing practices yet. However, this has been recognized in the company and the strategy planning is in process, even if the interviewees knew very little about it at the time of the study.

The themes related to knowledge management and its practical problems has been extensively studied in recent years. Today's organizations, as the case company under study, are beginning to realize that in addition to understanding the core businesses, and operations, special emphasis must be placed to knowledge, knowledge sharing practices and knowledge management (Janus, 2016; Laihonen et al., 2013). Typically, companies lack official and shared knowledge management policies, which causes a wide range of challenges and problems in companies (Janus, 2016, Mitronen & Raikaslehto, 2019; Savolainen & Lehmuskorpi, 2017). Especially, in small companies, knowledge management as a defined field is not included in the typical competencies and the focus is typically on solving things through problems (Zieba et al., 2016). For instance, according to Janus (2016), a clear strategy guides in designing knowledge-sharing initiatives, informs all stakeholders in the organization about the value of knowledge sharing, and, thus, enables the dissemination of the strategy throughout the organization. Therefore, a good knowledge-sharing strategy provides a clear plan of the organization's current situation, where it needs to go, and most importantly, how to get there. The key things to consider in a knowledge-sharing strategy includes the leadership commitment and awareness raising in the organization (Janus, 2016).

However, gaining, sharing, or disseminating knowledge throughout the organization is rarely a straightforward process, but can be better manageable throughout a unified policy or an action plan of the particular topic (Dalkir, 2011; Hislop, 2013; Janus, 2016; Sydänmaanlakka, 2012, 2017). This again, increases the transparency of the organization's actions (Wendelin, 2013), which was one of the core barriers maintained through the interview results. Thus, in order to manage and cope with the continuous changes in a competent manner, a unified policy for both knowledge management and knowledge sharing practices are recommended (Mitronen & Raikaslehto, 2019; Sydänmaanlakka, 2017). However, there is no one-size-fits-all approach when choosing a model for the organizational knowledge management that suits in every situation. Instead, the choice of the model that best suits the situation depends on whether new solutions are sought, old conflicts are resolved, or whether the aim is to map and build a common picture (Solovjew-Vartiovaara, 2019).

As mentioned in the literature review of the study, a starting point for better control of the knowledge management practices is an extensive analysis of the current situation of the organization, which clarifies the key elements of knowledge management related issues, such as levels of performance, the level and quality of know-how and knowledge of the organization. Very basic questions such as, is there enough knowledge in the company, is there an ability to store data, information and knowledge, how well knowledge is shared and transferred and has the company the ability to re-use the existing knowledge within the organization may help in getting started (Sydänmaanlakka, 2012). Equivalently, a preliminary mapping or the current state of the knowledge sharing practices can be further clarified through knowledge auditing (Daghfous et al., 2013; Serrat, 2009). By knowledge auditing, answers to important questions can be obtained and the organizations needs for knowledge can be determined (Daghfous et al., 2013). For instance, the following questions may help in structuring the knowledge needs and the existence of the organizational knowledge:

- What are an organization's knowledge needs?
- What tacit and explicit knowledge assets does it have and where are they?
- How does knowledge flow within the organization, formally and informally, and to and from clients and relevant organizations?
- How is that knowledge identified, created, stored, shared, and used?

- What obstacles are there to knowledge flows, e.g., to what extent do its people, business processes, and technology currently support or hamper the effective movement of knowledge?
- What gaps and duplications exist in the organization's knowledge? (Serrat, 2009).

According to the managers interviewed, one of the case company's communications and knowledge sharing development goals is to increase transparency in operations. As stated and demonstrated by the results of the research, the transparency should be increased in every operation and development projects in order to increase the flow and sharing of knowledge. As a solution for this, for instance, according to Kotlarsky (2015), Loebbecke (2016), and Ahn and Hong (2019), understanding Carlile's (2002, 2004) boundary types of communication complexities and their characteristics, which influences the nature and dynamics of teams and unit's knowledge processes, may help in assessing the amount of social interaction, or intersubjectivity, required in the knowledge sharing phase. For instance, Serrat's (2009) five competencies framework is used to assess the organizational performance, as it identifies areas of organizational competence for knowledge management. The five competencies are:

1) Strategy development
2) Management techniques
3) Collaboration mechanisms
4) Knowledge sharing and learning, and
5) Knowledge capture and storage

Additionally, when the knowledge flows in the organization in two- or multi-direction, the dependence on individual knowledge decreases and the organization can gather organizational knowledge to its advantage (Dalkir, 2011; Janus, 2016; Laihonen et al., 2013; Sydänmaanlakka, 2012). Knowledge sharing refers to the two- or multidimensional flow of knowledge (Janus, 2016) and it should be two- or multidimensional rather than one-way knowledge exchange or transmission of knowledge, as knowledge sharing, and exchange involves the idea of learning from each other. As a brief repetition of the previous research and the literature on the field, knowledge sharing practices has shown to improve all levels of the organization's operations (Janus, 2016; Laihonen et al., 2013; Lin, 2007). For instance, effective knowledge sharing saves time and resources as individuals do not need to 'reinvent the wheel' (Sydänmaanlakka, 2012). In addition, knowledge sharing increases both organizational performance and innovation and contributes to ensuring organizational continuity and success (Virtainlahti, 2009; Dalkir, 2011; Janus, 2016; Kuitunen, 2020).

Recent research has examined organization intellectual capital (IC) and intangible assets (IA) in terms of structure and measurement, as well as management and development, and has found them to be important as a competitive factor, and add value to the company (Barachini, 2009; Sydänmaanlakka, 2014). The results of this thesis highlighted the loss of knowledge due to employee turnover. However, this would be more manageable if the organization accumulated a body of knowledge for itself and, thus, also facilitated the burden of more knowledgeable employees to share their knowledge themselves. Moreover, the capital tied up in the company's personnel forms an important part of the company's total capital and, in the future, companies should measure and report of this capital, for example in the form of personnel accounts (Sydänmaanlakka, 2012).

In addition, interviews revealed that the company values were not displayed in everyday life, or at least they are not reflected as strongly as they could have been, as neither the employees nor the management remembered the all three values of the case company. Based on the literature of the topic, values are playing an important part of the company's internal and external communications (Sydänmaanlakka, 2012; Wendelin, 2013), and values are used as the basis for everyday behavior (Wang & Hou, 2015; Wendelin, 2013) and, thus, workplace values affect and form the working atmosphere and impacts the company's working culture (Peltonen & Ruohotie, 1987). Moreover, an individual must understand organization's values in order to consider oneself as a member of the organization (Luois, 1980; Taormina, 2009). Based on organizations values, an individual adjusts own behavior so that it is beneficial and valued by the organization (Mitronen & Raikaslehto, 2019; Wang & Hou, 2015). Therefore, if the company values are inconsistent with practices or the company managers behaves or acts differently from what is written in the values or the strategies, then the manager's behavior becomes the new norm in the company culture (Mitronen & Raikaslehto, 2019). In summary, despite the trend of setting values, it is worth nurturing the company's values and acting on them (Wendelin, 2013).

Qualify the Tools, Training and Orientation

Typically, companies collect large amounts of data, information and knowledge with great effort and money, but do not know how to utilize them. In addition, companies should control and organize the shared knowledge, since otherwise the systems overload with data, information, and knowledge, which, in turn, may prevent knowledge seekers from obtaining knowledge (Dalkir, 2011; Janus, 2016, Sydänmaanlakka, 2012). The IT department can provide the best tools and software for the company, but the change will not succeed without the commitment of the entire organization (Laihonen et al., 2013).

By examining the professional competencies and skills of the interviewees, it was found that there is a wealth of expertise of different entities, but the knowledge was unevenly distributed among different employees. Moreover, as the results of the research show, some of the current knowledge sharing tools and systems for knowledge storing were considered inappropriate, and knowledge loss and uncontrolled change of knowledge occurs often and on regular basis. To overcome this barrier, the flow of knowledge could be clarified by paying attention to the storage and sharing of knowledge, the development of retrieval functions for information systems, and the monitoring and control of the use of information management systems. Additionally, more know-how and personal room for maneuver could be gained through job rotation, reforming or reviewing working time arrangements, increasing teleworking, and organizing a substitute staff scheme (Sydänmaanlakka, 2017; Virtainlahti, 2009).

Furthermore, as proposed by the interviewees themselves, increasing continuing training and planning the orientation of new employees right from the beginning in a very motivational manner, the knowledge sharing culture would be the norm from the outset and when everyone were as independent as possible from the start, it would help all employees to focus better on their own work. Moreover, one solution mentioned in the interviews were that each unit should have a sub-unit specific trainer person who is well-trained and responsible for the training of others and as such provides technical support in daily work. Therefore, a sub-unit specific trainer for the most important systems and a training and the development of an induction plan could bring clarity and transparency to the training provided by the organization.

Knowledge sharing and exchange involves the idea of learning from each other (Janus, 2016) and thus, co-operation between the sub-units would increase the level of knowing (Van den Hooff et al., 2012) and increase the knowledge creation as new knowledge is created through communication between colleagues (Asrar-ul-Haq & Anwar, 2016; Nahapiet & Ghosal, 1998). Obviously, in a knowledge-sharing company, individuals' learning, and the competence development should be supported by giving employees time to embrace new things and the opportunity to act and to be heard in the arenas of knowledge sharing (Sydänmaanlakka, 2012). Furthermore, individuals should be provided with training and access to the knowledge sources (Janus, 2016; Laihonen et al., 2013).

It would also be worth considering ways to make the flow of knowledge across business unit boundaries profitable for all parties. In addition, other suggestion to increase learning could be the introduction of a company-wide mentoring system. The interviews revealed that there have already been discussions in the organization regarding some trainings in the form of video recordings. At the company level, centralized decisions should be made on the possibility of various distance trainings to be found on the future company-wide intranet, to maintain the professionalism. Additionally, as mentioned by Hislop (2013) in a pull-strategy, employees search for the knowledge they need themselves, and recorded video trainings, for instance, provide flexibility in their learning time, with employees being able to choose and adjust the most appropriate training time to their own schedule.

Manage with Knowledge

The business success factors are generally considered as areas of strategy, leadership and competence as well as interaction (Mitronen & Raikaslehto, 2019). The acquisition, creation and sharing of knowledge must also be managed (Dalkir, 2011; Sydänmaanlakka, 2012; Vuorinen, 2013). As it is stated by many researchers (e.g. Daghfous et al., 2013; Juholin, 2009, Zieba et al., 2016), effective and timely sharing of knowledge does not happen by itself, and knowledge sharing systems require effort and time to establish and maintain knowledge sharing practices. However, managing existing business and renewal processes simultaneously is challenging and requires new kinds of talents from the managers (Mitronen & Raikaslehto, 2019). That is why the roles and responsibilities of the company must be clear in the turmoil of organizational change (Savolainen & Lehmuskoski, 2017). Hence, the organization must decide who is responsible for managing knowledge (Savolainen & Lehmuskoski, 2017), and ensure multidirectional communication, collaboration and consider individual's needs in the company operations (Juholin, 2009; Wendelin, 2013).

According to the a few managers interviewed in the study, the roles of managers in a reforming case company are not quite clear and this was also reflected in the results of the study from the perspective of employees. This was evident from the research findings for employees in many ways, including the fact that employees felt they were being kept in the dark, especially in matters related to the progress of development projects. In addition, unclear division of roles between managers also hampered the flow of knowledge, with meetings being held unplanned and possibly due to ambiguities in the managers' responsibilities, employees perceived the meetings as results-oriented rather than knowledge-based. As is known from the literature, managers naturally have different roles in the company. For example, according to Savolainen and Lehmuskorpi (2017) the management levels of a knowledge-intensive company can be divided into two different roles. In a knowledge-intensive company, the communications manager plays a key role in setting goals and advancing them as they are familiar with the goals. The operational manager has an important role in guiding the implementation of goals and, thus, supporting staff in acquiring and developing knowledge. (Savolainen & Lehmuskoski, 2017) The key is to understand that people are committed to change through an open and honest communication (Juholin, 2009), which in turn affects, among other things, staff turnover (Wendelin, 2013).

Moreover, today's leadership can be considered as change management (Sydänmaanlakka, 2012; Vuorinen, 2013) and typically, people want things around them to change but they either do not know how to change themselves, or simply do not want to change themselves (Savolainen & Lehmuskoski, 2017). In addition, opposition to change is also relevant and fruitful for organizational development as resisting change and expressing ambivalence can create dialogue and, thus, encourage ongoing discussion (Piderit, 2000). In the case company, the importance of knowledge and the understanding of the diversity of knowledge is constantly increasing. The research results revealed that not all decisions of the case company are yet reliably based on knowledge. Furthermore, correct and up-to-date knowledge are central in management processes (Juholin, 2009; Wendelin, 2013). However, modern management must be knowledge-based (Rytilä,

2011) and, thus, enable the formation of a good work community that takes the whole organization into account, where knowledge flows and is shared seamlessly.

As discussed in the literature, one of the main goals of knowledge management is to create an organizational culture and work environment that encourages people to share knowledge (Kuitunen, 2020). In a culture of productivity, efficiency and job satisfaction, where the people are valued for their resources, the organizational culture and its atmosphere encourages to share knowledge, and which also has a positive effect on work productivity (Peltotie & Ruohonen, 1987; Wendelin, 2013). An organizational culture that fosters knowledge sharing starts from the top, but it is common for leaders to also need coaching to share knowledge (Mitronen & Raikaslehto, 2019). According to Dalkir (2011), and as suggested by Gruber and Duxbury (2000) as cited in Dalkir (2011), a working environment that truly supports the sharing of knowledge, should pay attention to the following characteristics:

- Reward structure, with the recognition for knowledge sharing with peers,
- Openness and transparency, with no hidden agendas,
- Sharing is supported, so that communication and coordination happens between groups,
- Trust, as the organization has shared objectives, and
- Top management support, meaning upward and downward communication.

In addition, giving and receiving feedback on a regular and systematic basis is part of a successful organization and its culture (Järvinen, 2019; Sydänmaanlakka, 2012; Wendelin, 2013). Besides systems training, leadership aspects such as rewarding and giving feedback are considered important mutually supportive processes for knowledge sharing and learning (Juholin, 2009; Kuitunen, 2020). As the trend today is to seek and receive feedback from as many directions as possible, a 360-degree feedback (Sydänmaanlakka, 2012), the management of a company must also be prepared to receive critical feedback (Järvinen, 2019). Anyhow, regular monitoring of the development of both staff and customer satisfaction is recommendable at the company level (Sydänmaanlakka, 2012) as it has a huge impact on the organizational culture and atmosphere and, thus, either increases or decreases the level of perceived individual's work motivation and trust among people (Kurttila et al, 2010; Martela & Jarenko, 2015; Peltonen & Ruohotie, 1987; Widén-Wuff, 2007).

Focus on Individual's Needs

Understanding factors that typically drive knowledge sharing in today's business operations among employees is a prerequisite for enabling employees to interact and achieve the ideal level of communication and knowledge sharing. Therefore, as knowledge sharing drivers may positively or negatively affect knowledge sharing, a careful evaluation of the individual's drivers towards knowledge sharing and communication are important prerequisites for knowledge sharing practices development in organizations (Ghobadi, 2015; Henttonen et al., 2016). Investigation of individual's knowledge sharing behavior, its performance and motivation is the starting point for understanding what and how information activities affect the individual (Widén, 2017). Unfortunately, the individual knowledge behavior and its performance is relatively neglected area in the knowledge management research, and it is often linked to an individual's attitude to share knowledge (Henttonen et al., 2016). However, we are living in a digital economy, where we need to rethink the contents of our work, the practices how we do it and reform practice on how the revenue is generated (Sydänmaanlakka, 2014).

Creating an organizational culture and atmosphere that support knowledge sharing is one of the key enablers for knowledge sharing in an organization. (Sydänmaanlakka, 2012, 2014; Wendelin, 2013) In addition, culture and atmosphere are relatively challenging concepts in the organizations, as they are broad and include; in particular, tacit know-how and everything that is not mentioned aloud (Kuitunen, 2020). Thus, the power of the work culture is measured to be stronger than the company strategies as they effect on what is considered important and what is not (Järvinen, 2019; Mitronen & Raikaslehto, 2019; Kuitunen, 2020). According to some authors (e.g. Janus, 2016; Wang & Hau, 2015; Wendelin, 2013), the organization's culture of sharing knowledge starts from the top, but it is common for leaders to also need coaching to share knowledge and review their own approach to knowledge sharing. In this case, too, management acts as a direct example for employees of what is desired and valued in the company. As leaders in the organization encourage, recognize, and reward knowledge sharing, also employees' attitudes toward knowledge sharing practices improves (Martela & Jarenko, 2015; Vuori

& Okkonen, 2012). Therefore, issues related to cultural change need to be raised especially at the company level, as changes in values and attitudes across the company need to be supported by a top management model (Janus, 2016; Wendelin, 2013). However, everyday work culture is strongly influenced especially at the sub-unit level and all individuals must be involved in changing it (Kuitunen, 2020).

Moreover, the individual's motivation, especially intrinsic motivation (Henttonen et al., 2016; Okkonen et al., 2018; Tyler, 2012; Vuori & Okkonen, 2012), attitude (Peltonen & Ruohotie 1987; Huang et al., 2013), and behavior (Dela, 2004, Widén-Wuff, 2007) are related to person's own self-image, which affect self-confidence and, thus, well-being at work. In addition, the motivation and value experienced by the employee increases when he or she receives appreciation (Kurttila et al., 2010). Thus, management can promote an individual's motivation to share knowledge on attending these issues. For instance, based on the literature, to support an individual's motivation, attitude, behavior and; thus, willingness to share knowledge, the case company should focus on the following themes (Gagné 2009; Laitinen & Stenvall 2012; Rytilä 2011):

- Personnel decisions,
- Job planning,
- Performance appraisal and remuneration systems,
- Management practices and communication of practices,
- Leadership roles and responsibilities,
- Trust,
- Change management, and
- Training and development

Issues related to an individual's learning and own growth should be highlighted in the sub-units and should be emphasized at the individual level, because, after all, learning takes place in each individual's own mind (Pirkkalainen et al., 2017; Silvennoinen & Kauppinen, 2006, Sydänmaanlakka, 2017). In today's organization, everyone is responsible for both sharing knowledge and leading themselves and, thus, promoting both healthy practices and involve in the activities of the organization (Kuitunen, 2020; Pirkkalainen et al., 2017; Sydänmaanlakka, 2017). According to Sydänmaanlakka (2017), individual's mental intelligence is a crucial factor in controlling the hastiness and stress of work and, for example, can be manageable by embarking their own skills and capabilities, such as:

- Considering good learning skills, such as the ability to acquire, absorb, and use knowledge effectively,
- Problem-solving ability, and
- Self-reflection, that is, in-depth assessment of things.

In this study, the research results revealed that knowledge sharing among employees depends on participation and communication with each other. These actions require voluntary, dynamic interactions based on intersubjectivity, and trust among the organization's members (Ahn & Hong, 2019; Hsu et al., 2007; Widén-Wuff, 2007). However, a lack of trust among people turned out to be one of the biggest barriers in the case company's sub-unit under study that affects knowledge sharing. Although the employees themselves were very motivated to share all their knowledge without any ulterior motives, knowledge withholding was experienced. This again impacted negatively on the individual's motivation to share knowledge within the organization. According to the literature, it has been found that when the workplace represents the presence of trust, employees trust their co-workers and managers and, typically, perceive fairness in how their effort has been awarded (Iqbal et al., 2014). Therefore, based on empirical evidence, when the employees feel psychologically safe to share their knowledge, they continue to contribute to the continuous improvement of the organization (Law et al., 2019). For instance, storytelling can be used as a tool to build trust between partners, since it reveals personal viewpoints and many times a lack of trust result from that the individual's do not know each other or each other's intentions (Rauhala & Vikström, 2014).

Nevertheless, trust among people is worth cherishing as it has been found that it impacts essentially to knowledge sharing in organizations (Hsu et al., 2007; Law et al., 2019; Razmerita et al., 2016), which leads to a better work performance (Henttonen et al., 2016) and reduces staff turnover (Wendelin, 2013). Additionally, the social relationship between mutual understanding and openness between management and employees should be developed (Hislop, 2013; Razmerita et al., 2016). Therefore, it may be fruitful to highlight the employee's training and competence needs in the development discussions between the supervisor and the subordinate.

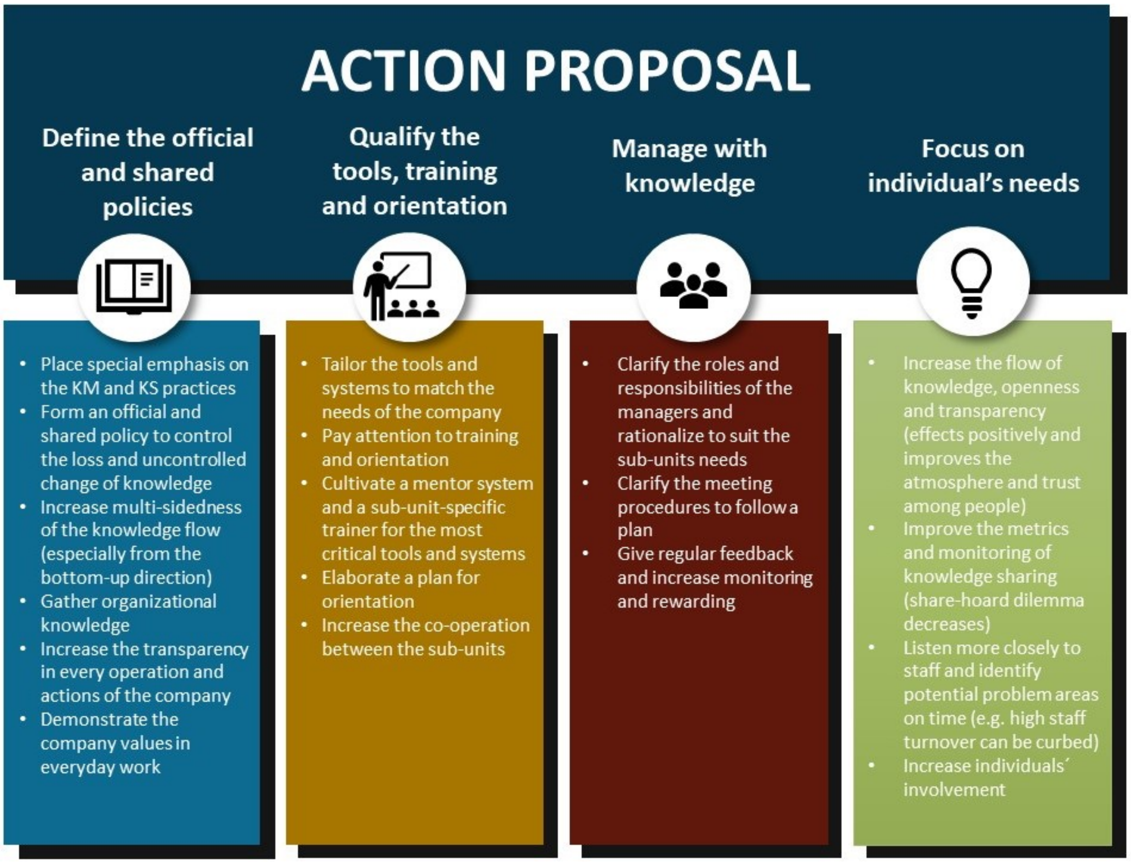
6.1.2 Summary of the Recommendations and the Action Proposal

In terms of business development, organizational problems are typically not seen as a lack of ideas or new ideas, but rather as a difficulty in making choices. Typically, the questions related to the topic look for answers on how good ideas can be taken forward, and for how long, and on the other hand, which ideas should be discarded in a timely manner. According to Mitronen and Raikaslehto (2019) these decisions and practices reflect the ability of the entire organization and management to operate profitably in existing markets, as well as the ability to create new growth in the new markets. In particular, these decisions emphasize the amount of knowledge, knowledge management and the importance of knowledge sharing (Mitronen & Raikaslehto, 2019; Sydänmaanlakka, 2012)

The same decision making difficulties apply to the development decisions of company’s internal processes and, in particular for this study, the decisions of how to develop the internal knowledge sharing practices. In order to develop and exploit more effective and rational knowledge sharing practices in the future, a common knowledge sharing policy is proposed by the researcher, which, in turn, serves as a starting point for further develop and exploit of a collaborative knowledge sharing strategy. However, making strategic plans does not require much effort (Mitronen & Raikaslehto, 2019). Implementing an action plan, requires changes in prior procedures and facilitate simultaneously both the best of old and new ways (Sydänmaanlakka, 2012). In addition, all this is done with and through people.

After a review of the literature and analysis of the information obtained through the interviewees, a more thorough description of how these results contribute to the achievement of the objectives of this dissertation was sought. Based on the empirical insights of the interviewees and the reviewed literature, proposals for action to improve knowledge management and internal knowledge sharing practices of the case company are presented. Although the case interviews with the company revealed many factors that already promote and enable the flow of knowledge, knowledge sharing and knowledge management in the company, no separate proposals for actions are made for these. However, in accordance with the SWOT analyses defined in Chapter 5, it is worth paying attention to the opportunities and strengths in the further development of the case company. Therefore, the main barriers which were defined with the help of the SWOT analyses in Chapter 5, that prevent both the organizational and the individual's knowledge sharing practices and knowledge management, are used as the basis of the action proposal. All in all, the Figure 16 outlines the four key development areas of the organization and individual factors that, according to the results of the study, could be considered in the future development projects, and supplement the action plans for communication, knowledge sharing and knowledge management of the case company.

Figure 16. The Action Proposal to Supplement the Action Plans for Communication, Knowledge Sharing, and Knowledge Management.



6.2 Conclusion

The overall objective of this thesis was to provide a preliminary mapping of the case company's knowledge sharing practices from the employee perspective and, thus, bestow prior knowledge for the ongoing and upcoming development of the case company's communication and internal knowledge sharing project. Throughout answering the three supporting research questions, which are outlined in the introduction section and discussed in more detail and answered in section 6.2.1, a holistic understanding of the researched phenomena was gained. Furthermore, based on the results of the research, the factors identified throughout the SWOT analyses in Chapter 5, the proposal for action is propounded to provide concrete ideas for managing and developing knowledge management and knowledge sharing practices of the case company. In addition, the four themes of action proposals are important to consider with the goals of the case company's overall development of the operations.

Making strategic plans does not require much effort. However, implementing an action plan requires changes in prior procedures, and skills to facilitate simultaneously both the best of the old and the new ways (Mitronen & Raikaslehto, 2019). In addition, all this is done with and through people (Sydänmaanlakka, 2012). Although the case company has limited resources to development work, as the literature on the subject suggests, an organization must be aware of and define its own knowledge system as well as the way to process, acquire, and share knowledge, and use that knowledge in organizational learning and, thus, create new knowledge. Concisely, the findings presented in Chapter 5, affirm that it is crucial for the case company to understand and have the know-how of the how to develop the current practices of knowledge management and knowledge sharing. Therefore, a shared vision and agreement by an official policy and systematic adherence on what, why and how things are done, is recommended to clarify and help to structure the following steps for the future development. Thus, the proposed action proposal for the case company's action plans of the internal knowledge sharing practices and knowledge management, can be useful in developing a future knowledge sharing strategy.

The theoretical background of the research was gathered for long and earnestly around the research topic before conducting the interview research itself. The purpose of the literature review was to elucidate relevant research concepts in order to obtain a comprehensive theoretical background and to form a basis for research. In general, this thesis expands the previous discussions in the field of knowledge, knowledge sharing and knowledge management, and raises awareness about the organizational and individual factors that influence the internal knowledge sharing practices. Familiarity with the topic helped to structure the research interview and, also, increased the researcher's readiness for surprising changes in the refinement of the research topic. In addition, the literature background was refined and structured simultaneously with the analysis of the research results.

The analysis of the research material was a qualitative content analysis based on the researcher's thinking and reflection on the collected interview material and which proceeded to a more precise classification of the factors identified, and the creation of a proposal for action. The research material was reviewed many times and the processing of the results was iterative in nature, as the final conclusions and the whole study were formed through several reflections and writings. When considering the proposals for action, the main principle has been that existing strengths and opportunities should be maintained and that the threats and weaknesses analyzed should be improved. Therefore, this proposal focuses, in particular, on the threats and weaknesses identified throughout the SWOT analyses in Chapter 5.

In summary, the research found ways to describe and analyze the operations of a sub-unit of a case company from the perspective of employees, by collecting diverse data and identifying factors that enabled or prevented knowledge flow and knowledge sharing practices and as such, influenced to knowledge management. Additionally, the findings of the interviewees were described in multiple forms, and the thesis provided the case company with a great opportunity to view the development ideas related to internal knowledge sharing practices and knowledge management in a new light.

6.2.1 Answering the Research Questions

This section describes how the study succeeded in answering the research questions posed and how the objectives of the study were achieved. The main question of the research has been answered by the supporting research questions.

As stated in section 1.3., the main research question is:

> *How can knowledge sharing and internal knowledge sharing practices be better managed in SMEs?*

There are three supporting research questions, of which the first research question is:

RQ1: *Why is knowledge sharing and its management important to an organization?*

This question is answered and reasoned by the literature review presented in Chapter 2 and 3.

The second supporting research question is:

RQ2: *What organizational and individual factors influence the internal knowledge sharing practices?*

This question is answered and reasoned by both the literature review presented in Chapter 3 and the research results presented in Chapter 5.

The third, and final supporting research question is:

RQ3: *How can internal knowledge sharing practices be developed within a SME?*

This question is answered and reasoned throughout the research findings presented in Chapter 5 and the theories presented in the literature review of Chapter 2 and 3. In addition, the main findings of the study in section 6.1. and the presented proposal for action demonstrates the practical implications and finalizes the answer to this question.

6.3 Reliability and Validity

The criteria for qualitative research are the relevance, adequacy and coverage of the analysis as well as evaluability and repeatability (Hirsjärvi et al., 2005; Liamputton, 2013). According to Metsämuuronen (2000), the reader should be able to assess how reliable the information is. The reliability of the qualitative case study research can be confirmed by triangulation, which is, using many sources of data and information, multiple research methods, and different theories (Metsämuuronen, 2000).

The current thesis achieved a fairly good validity as interview material produced sufficient answers to the research questions posed in the thesis. In addition, interview material accumulated a lot and the questions received in-depth answers as well as personal reflections, and it can be said that people invested time and energy in their responds. In terms of reliability, the corresponding study is quite reproducible with a new interview using the same set of semi-structured questions for the same target group. The study can also be considered reliable, since the author of the thesis was impartial as she did not have previous background within the case company. Thus, special emphasis was made to ascertain that the researcher's own interpretation was minimized.

The generalizability of the study is questionable, as the study concerned only one sub-unit of the case company in a single organization. Furthermore, finding similar operational personnel would be cumbersome, as the operations of organizations differ, and the individuals have different backgrounds and competences. However, the research can be continued by expanding it to other sub-units within the case company, which is discussed more in the following section.

6.4 Limitations and Future Research

Although this study managed to answer its research questions, like other studies, it has some potential limitations. Next, the limitations are reviewed and recommendations for the future research are proposed.

First and foremost, the subject of this research is extensive, and it is impossible to explore all the aspects and variations of knowledge sharing practices and knowledge management in a single study. Therefore, due to the limited time and resources available at the time of this study, some additional aspects were omitted.

Second, this research focused only in one sub-unit of the case company, so the empirical data was obtained only from the five employees of the operational functions interviewed. Thus, the sample might not contribute to generalized results, because they might be biased to the sub-unit's own organizational culture and respondent's personal level of knowledge and interest towards knowledge management and knowledge sharing practices.

The inability to generalize the research results is typical to a qualitative research (Hakala, 2019; Liamputton, 2013). However, this study could be somewhat repeatable in another sub-unit of the case company. Further, it would be interesting to compare the results of this study to another sub-unit of the case company. Moreover, the future research could include a comprehensive sample to concern also all employees of the case company, not only the operational personnel as it now only concerned.

Third, there have been many unexpected changes regarding the topic of this thesis. As the researcher had no prior connection with the case company, she did not have access to the case company's information, and she had to rely on current information from a few managers regarding the stages of the company's reform processes. A few months after the beginning of the thesis, the original topic of a holistic mapping of the case company's current sales process from the knowledge sharing point of view, was changed, because the organization was already examining the sales process concurrently as a part of their comprehensive reform process. Thus, the topic of this thesis was changed to focus on mapping the internal knowledge sharing practices from the operational employees' point of view and, especially, to illustrate the perceived benefit of the CRM system support in knowledge sharing context. However, after the interview with the Sales Manager of the case company, it became clear that the prerequisites of the upcoming CRM system development were no longer on the table, and the standpoint and the scope of the study had to be modified again. Fortunately, the operational employee interviews were not taken place until two days later, and the changes to the interview theme's and semi-structured questions were made just on time.

The final aim of this thesis, to provide prior information to the communications and internal knowledge sharing reform of the company-wide development project of the case company, was set at late in February 2020, half a year from the beginning of the thesis process. Even though the possible delays in the study had been considered in the work completion schedule, these changes in the topic delayed the completion from what was originally planned and posed some challenges for the author to find time for the thesis and, thus, to focus on small details.

In the future, for similar research work, the choice of the topic of the study should be more precise from the very beginning, and it is important that the researcher knows enough about the company's reform processes before choosing the research topic. Similarly, the unfortunate overlaps and changes in the research topic under study could potentially have been avoided through more regular communication between the managers and the researcher. On the other hand, it can be said that the unexpected changes in the research topic, which were partly due to lack of communication, reinforced the need to study the knowledge sharing practices in the case company.

Fourth, as outlined in the introduction section, this research focuses only to small-and-medium-sized enterprises (SME) operating in the same country. According to the literature (e.g. Rossignoli, 2017; Sydänmaanlakka, 2012; Zieba et al., 2016), typically, the large enterprises face a different kind of challenges and barriers to knowledge sharing practices, as the SME does. Additionally, the knowledge management and knowledge sharing practices challenges with the case company are typical of a small or medium sized company rather than larger company (Rossignoli, 2017; Sydänmaanlakka, 2012; Zieba et al., 2016) However, it would be interesting to compare the results of this study with a multinational corporation operating in different countries and time zones.

Despite the limitations of the study, the research results have potentially important implications for the knowledge management and communication activities within the case company. In particular, the results of this study increase understanding of the currently experienced individual and organizational factors, that influence knowledge sharing practices. In order to generalize these findings, further research is needed. For instance, a supplementary assessment of the development needs in between the case company's sub-units could also provide interesting observations and insight into the overall situation of the case company. Similarly, an extended study, which includes both internal and external networks of the case company, could increase the general understanding of the needs of the case company's knowledge management and knowledge sharing practices.

It is understandable, and what became clear in the interviews with the managers, due to the limited resources for development, not everything can be developed at once and simultaneously. In addition, the business environment of an organization is constantly changing, and at the same time, knowledge needs are also changing (Lahtinen et al., 2013). Therefore, in the future, the most important areas for development must be first determined, and the indicators of measurement should be carefully considered to be relevant to the development of operations (Ruggles, 1999; Sydänmaanlakka, 2012). In addition, for example, in order to better predict organizational performance, the case company could benefit from measuring employee work motivational factors and enthusiasm level instead of job satisfaction (Martela & Jarenko, 2015). Additionally, the action proposal identified on the basis of this study results, can be helpful when determining the future development areas.

7 REFERENCES

Aaltonen, T., Pajunen, H., & Tuominen, K. (2011). *Syty ja sytytä, valmentavan johtamisen filosofia.* Hämeenlinna: Talentum Media Oy.

Aarnos, E. (2018). Kouluun lapsia tutkimaan: Havainnointi, haastattelu ja dokumentit. In Valli, R. (Ed.). *Ikkunoita tutkimusmetodeihin 1*, *Metodin valinta ja aineistonkeruu: virikkeitä aloittelevalle tutkijalle.* (5th Ed. pp, 174-189). Keuruu: PS-kustannus.

Ahn, J., & Hong, A. (2019). Transforming I into we in organizational knowledge creation: A case study. *Human Resource Development Quarterly, 30*(4), 1–18. https://doi.org/10.1002/hrdq.21371

Ajmera, P. (2017). Ranking the strategies for Indian medical tourism sector through the integration of SWOT analysis and TOPSIS method. *International Journal of Health Care Quality Assurance, 30*(8), 668-679.

Amayah, A. T. (2013). Determinants of knowledge sharing in public sector organization. *Journal of Knowledge Management, 17*(3), 454-471.

Ardichvili, A. (2008). Learning and knowledge sharing in virtual communities of practice: motivators, barriers and enablers. *Advances in Developing Human Resources, 10*(4), 541-554.

Arnold, V., Benford, T. S., Hampton, C., & Sutton, S. G. (2014). Enterprise Risk Management: Re-Conceptualizing the Role of Risk and Trust on Information Sharing in Transnational Alliances. *Journal of Information Systems, 28*(2), 257–285.

Asrar-ul-Haq, M., & Anwar, S. (2016). A Systematic review of knowledge management and knowledge sharing: Trends, issues and challenges. *Cogent Business and Management, 3*(1), 1127744. https://doi.org/10.1080/23311975.2015.1127744

Barachini, F. (2009). *Cultural and social issues for knowledge sharing. Journal of Knowledge Management, 13*(1), 98-110. https://doi.org/10.1108/13673270910931198

Baškarada, S., & Koronios, A. (2013). Data, Information, Knowledge, Wisdom (DIKW): A Semiotic Theoretical and Empirical Exploration of the Hierarchy and its Quality Dimension. *Australasian Journal of Information Systems, 18*(1), 5-24. https://doi.org/10.3127/ajis.v18i1.748

Bender, S., & Fish, A. (2000). The transfer of knowledge and the retention of expertise: the continuing need for global assignments. *Journal of Knowledge Management, 4*(2), 125-137.

Blackler, F. (1995). Knowledge, knowledge work and organizations: An overview and interpretation. *Organization Studies, 16*(6), 1021-1046.

Bukowitz, W., & Williams, R. (1999). *The Knowledge Management fieldbook*. Great Britain: Pearson Education Limited.

Burmeister, F. Drews, P., & Schirmer, I. (2018). Towards an Extended Enterprise Architecture Meta Model for Big Data — A Literature-based Approach. Proceedings of the 24th Americas Conference on Information System, Retrieved November 11, 2019, from https://aisel.aisnet.org/amcis2018/Enterprise/Presentations/2/

Burnes, B. (1996). No such thing as … a "one best way" to manage organizational change. *Management Decision, 34*(10), 11-18. https://doi.org/10.1108/00251749610150649

Burnes, B. (2004). Emergent change and planned change – competitors or allies? The case of XYZ construction. *International Journal of Operations & Production Management, 24*(9), 886-902.

Chen, Y-H., Lin, T-P., & Yen, D. C. (2014). How to facilitate inter-organizational knowledge sharing: The impact of trust. *Information & Management, 51*(2014), 568–578. https://doi.org/10.1016/j.im.2014.03.007

Choi, S. Y., Lee, H., & Yoo, Y. (2010). The impact of information technology and transactive memory systems on knowledge sharing, application, and team performance: A field study. *MIS Quarterly, 34*(1), 855-870.

Daghfous, A., Ahmad, N., & Angell, L. (2013). The KCRM knowledge audit: model and case illustration. *VINE: The Journal of Information and Knowledge Management Systems, 43*(2), 185-209. https://doi.org/10.1108/03055721311329954

Dalkir, K. (2011). *Knowledge Management in Theory and Practice*, (2nd Edition). United States of America: Toppan Best-set Premedia Limited.

Davenport, T.H., & Prusak, L. (1998). *How organizations manage what they know,* Working knowledge. Boston: Harvard Business School Press.

Dela, J. (2004). Networking and Sharing Information. Institute of Leadership & Management, Great Britain. ProQuest Ebook Central.

European Commission. (2016). User guide to the SME definition. Retrieved February 20, 2020, from https://ec.europa.eu/docsroom/documents/15582/attachments/1/translations

Faucher, J., Everett, A., & Lawson, R. (2008). Reconstituting knowledge management. *Journal of Knowledge Management, 12*(3), 3-16.

Foss, N.J., Husted, K., & Michailova, S. (2010). Governing knowledge sharing in organizations: levels of analysis, governance mechanisms, and research directions. *Journal of Management Studies, 47*(3), 455-482.

Gagné, M. (2009). A Model of Knowledge-Sharing Motivation. *Human Resource Management, 48*(4), 571-589. DOI: 10.1002/hrm.20298

Ghobadi, S. (2015). What drives knowledge sharing in software development teams: A literature review and classification framework. *Information & Management, 52*(1), 82-97. https://doi.org/10.1016/j.im.2014.10.008

Ghobadi, S., & Mathiassen, L. (2014). Perceived barriers to effective knowledge sharing in agile software teams. *Information Systems Journal, 26*(2), 95-125. https://doi.org/10.1111/isj.12053

Gruber, H., & Duxbury, L. (2000). Cited in Dalkir, K. (2011). (Ed.) *Knowledge Management in Theory and Practice*, (2nd Edition). United States of America: Toppan Best-set Premedia Limited.

Hakala, J. T. (2017). *Tulevan maisterin graduopas*. Tallinna, Gaudeamus Oy.

Halonen, R., & Laukkanen, E. (2008). Managing tacit and explicit knowledge in organisational teams. *Third International Conference on Digital Information Management, 1*(1), 292-297. https://doi.org/10.1109/ICDIM.2008.4746707

Hau, Y.S., Kim, B., Lee, H., & Kim, Y.G. (2013). The effects of individual motivations and social capital on employees' tacit and explicit knowledge sharing intentions. *International Journal of Information Management, 33*(2), 356-366.

Hellsten, T. (1998). *Virtahepo työpaikalla – kohti hyvinvoivaa työyhteisöä*. Juva: Writers' House Illuminati Oy.

Hellström, E., Ikäheimo, H-P., Hakapää, J., Lehtomäki, J., & Saari, M. (2019). Tiedonkäytön tulevaisuus yhteiskunnallisessa päätöksenteossa. Sitra. Retrieved from https://www.sitra.fi/julkaisut/tiedonkayton-tulevaisuus-yhteiskunnallisessa-paatoksenteossa/

Henttonen, K., Kianto, A., & Ritala, P. (2016). Knowledge sharing and individual work performance: an empirical study of a public sector organization. *Journal of Knowledge Management, 20*(4), 749-768.

Hirsjärvi, S., Remes, P., & Sajavaara, P. (2005). *Tutki ja kirjoita.* (11th Ed). Jyväskylä: Gummerus Kirjapaino Oy.

Hislop, D. (2013). *Knowledge Management in Organizations, A Critical Introduction*. (3rd Ed). United Kingdom: Oxford University Press.

Hsu, M.H., Ju, T.L., Yen, C.H., & Chang, C.M. (2007). Knowledge sharing behavior in virtual communities: the relationship between trust, self-efficacy, and outcome expectations. *International Journal of Human-Computer Studies, 65*(2), 153-169.

Huang, M-C., Chiu, Y-A., & Lu, T-C. (2013). Knowledge governance mechanisms and repatriate's knowledge sharing: the mediating roles of motivation and opportunity. *Journal of Knowledge Management, 17*(5), 677-694.

Huvila, I., Ek, S., & Widén, G. (2014). Information sharing and the dimensions of social capital in Second Life. *Journal of Information Science, 40*(2), 237-248. https://doi.org/10.1177/0165551513516711

Iqbal, S., Toulson, P., & Tweed, D. (2014). Employees as performers in knowledge intensive firms: role of knowledge sharing. *International Journal of Manpower, 36*(7), 1072-1094. https://doi.org/10.1108/IJM-10-2013-0241

Jantunen, A. (2005). Knowledge-processing capabilities and innovative performance: an empirical study. *European Journal of Innovation Management, 8*(3), 336-349. https://doi.org/10.1108/14601060510610199

Janus, S. (2016). *Becoming a knowledge-sharing organization: A handbook for Scaling Up Solutions through Knowledge Capturing and Sharing.* Washington, DC: World Bank. https://doi.org/10.1596/978-1-4648-0943-9

Juholin, E. (2009). *Viestinnän vallankumous, löydä uusi työyhteisöviestintä*. (2nd Ed). Juva: WSOY 2009

Järvinen, P. (Speaker). (2019). Työyhteisöt ja esimiestyö. Podcast, Vuoden työnantaja [Audio podcast]. Retrieved February 2, 2020, from https://open.spotify.com/episode/5DoDlYeAQTWR81Mpd3uvv0?si=XCcFR9CZTdyPJiBk4NuizQ

Kamla, A., & Ofman, L. (2016). Knowledge sharing through inter-organizational knowledge sharing systems. *VINE Journal of Information and Knowledge Management Systems, 47*(1), 110-136.

Kananen, J. (2019). *Opinnäytetyön ja pro gradun pikaopas, Avain opinnäytetyön ja pro gradun kirjoittamiseen.* Jyväskylä: Jyväskylän ammattikorkeakoulu.

Kotter, J. P. (1990). What Leaders Really Do. *Harvard Business Review, 68*(3), 103-111.

Kuettner, T., Diehl, R., & Schubert, P. (2013). Change factors in Enterprise 2.0 initiatives: can we learn from ERP?. *Electronic Markets, 23*(4), 329-340

Kuitunen, M. (Speaker). (2020). Kulttuurin johtaminen ja työnantajabrändäys. Podcast by Vuoden työnantaja [Audio podcast]. Retrieved February 2, 2020, from https://open.spotify.com/episode/6vQPPZTZlSYj1M6OsOq05b?si=fuL7TjahTHW03gbSxUG_jQ

Kumaraswamy, K. S. N., & Chitale, C. M. (2012). Collaborative knowledge sharing strategy to enhance organizational learning. *Journal of Management Development, 31*(3), 308-322.

Laihonen, H., Hannula, M., Helander, N., &…Yliniemi, T. (2013). *Tietojohtaminen.* Publication on the Internet, NOVI - Research Group for Information and Knowledge Management, Tampere University of Technology, Faculty of Management and Business. Retrieved from https://tutcris.tut.fi/portal/files/1812772/tietojohtaminen.pdf

Laitinen, I., & Stenvall, J. (2012). Ihminen ja vuorovaikutus muutoksessa – kompleksisuus ja muutosten hallinta. In Perttula, Juha & Syväjärvi, Antti (Eds.) *Johtamisen psykologia – Ihmisten johtaminen muuttuvassa työelämässä*, (pp, 91-121). Juva: PS-kustannus.

Law, K.K., Chan, A., & Ozer, M. (2019). Towards an integrated framework of intrinsic motivators, extrinsic motivators and knowledge sharing. *Journal of Knowledge Management, 21*(6), 1486-1502.

Liamputtong, P. (2013). *Qualitative Research methods.* Australia: Oxford University Press.

Lin, H-F. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intensions. *Journal of Information Science, 33*(2), 135-149. https://doi.org/ 10.1177/0165551506068174

Loebbecke, C., van Fenema, P., & Powell, P. (2016). Managing inter-organizational knowledge sharing. *Journal of Strategic Information Systems, 25*(1), 4-14. https://doi.org/10.1016/j.jsis.2015.12002

March, J. (1981). Footnotes to Organizational Change. *Administrative Science Quarterly, 26*(1), 563-577.

Martela, F., & Jarenko, K. (2015). Draivi – *Voiko sisäistä motivaatiota johtaa?*. Helsinki: Talentum.

Metsämuuronen, J. (2000). *Laadullisen tutkimuksen perusteet.* Metodologia-sarja 4. Helsinki: Methelp.

Mitronen, L., & Raikaslehto, T. (2019). *Voittajan strategia – lyhytjänteisyydestä kestävään menestykseen*. Helsinki: Alma Talent Oy.

Mourya, S., K., & Gupta S. (2012). *Data Mining and Data Warehousing*. Alpha Science International. Retrieved from https://ebookcentral-proquest-com.ezproxy.vasa.abo.fi/lib/abo-ebooks/reader.action?docID=5218420&query=

Niven, K., Holman, D., & Totterdell, P. (2012). How to win friendship and trust by influencing people's feelings. *Human Relations, 65*(6), 777-805.

Nonaka, I. (2007). *The Knowledge-Creating Company*. Harvard Business Review. New York: Oxford University Press.

Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company, How Japanese Companies Create the Dynamics of Innovation.* New York: Oxford University Press.

Okkonen, J., Vuori, V., & Helander, N. (2018). Enablers and restraints of knowledge work – Implications by certain professions?. *Cogent Business & Management, 5*(1), 15004408. https://doi.org/10.1080/23311975.2018.1504408

Osterloh, M., & Frey, B. S. (2000). Motivation, Knowledge Transfer, and Organizational Forms. *Organization Science, 11*(5), 538-550.

Peltonen, M., & Ruohotie, P. (1987). *Menetelmiä työhalun parantamiseksi*. Keuruu: Otava.

Piderit, S. K. (2000). Rethinking Resistance and Recognizing Ambivalence: A Multidimensional View of Attitudes toward an Organizational Change. *The Academy of Management Review, 25*(4), 783-794.

Pinho, I., Rego, A., & Cunha, M. P. E. (2012). Improving knowledge management processes: a hybrid positive approach. *Journal of Knowledge Management, 16*(2), 215-242.

Pirkkalainen, H., Salo, M., Makkonen, M., & Tarafdar, M. (2017). Coping with Technostress: When Emotional Responses Fail. In ICIS: *Proceedings the 38th International Conference on Information Systems.* Association for Information Systems (AIS), (pp. 1-17). Retrieved from http://aisel.aisnet.org/icis2017/IT-and-Social/Presentations/3/

Rauhala, M., & Vikström, T. (2014). *Storytelling työkaluna.* Helsinki: Talentum Media Oy.

Razmerita, L., Kirchner, K., & Nielsen, P. (2016). What factors influence knowledge sharing in organizations? A social dilemma perspective of social media communication. *Journal of Knowledge Management, 20*(6), 1225-1246.

Rossignoli, F. (2017). Network for Knowledge Sharing: An Empirical Investigation Within SMEs. European Conference on Knowledge Management, Kidmore End. Academic Conferences International Limited. Retrieved from https://search.proquest.com/docview/1967749990?accountid=8166

Ruggles, R. (1999). The state of the notion: knowledge management in practice. California *Management Review, 40*(3), 80-89.

Rytilä, M. (2011). *Tietoperustainen johtaminen palvelutoiminnan suunnittelussa julkisella terveydenhuoltoalalla.* Acta Universitatis Lapponiensis 214. Rovaniemi: Lapin yliopistokustannus. Retrieved from https://lauda.ulapland.fi/bitstream/handle/10024/61724/Rytil%E4_Maari_DORIA.pdf?sequence=1

Savolainen, T., & Lehmuskoski, K. (2017). *Digimuutos.fi – käytännön opas digitalisen transformaation johtamiseen.* Turku: HansaPrint.

Silvennoinen, M., & Kauppinen, R. (2006). *Onnistu alaisena – näin johdan esimiestäni ja itseäni.* Jyväskylä: Gummerus Kirjapaino Oy.

Seergeva, A., & Andreeva, T. (2016). Knowledge Sharing Research: Bringing Context Back In. *Journal of Management Inquiry, 25*(3), 240-261. https://doi.org/10.1177/1056492615618271

Serrat, O. (2009). Learning Lessons with Knowledge Audits[1]. Knowledge Solutions, Presented at the Malaysian Evaluation Society's Third International Evaluation Conference held from 31 March to 4 April 2008 in Kuala Lumpur, Malaysia. Asian Development Bank. Retrieved from https://www.adb.org/publications/learning-lessons-knowledge-audits

Sevkli, M., Oztekin, A. Uysal, O., Torlak, G., Turkyilmaz, A., & Delen, D. (2012). Development of a fuzzy ANP based analysis for the airline industry in Turkey. *Expert Systems with Applications, 39*(1), 14-24.

Stary, C., Barachini, F., & Hawamdeh, S. (2008). *Knowledge Management: Innovation, Technology and Cultures.* World Scientific Publishing Co Pte Ltd. Retrieved from https://ebookcentral-proquest-com.ezproxy.vasa.abo.fi/lib/abo-ebooks/reader.action?docID=1193259&query=

Stewart, G., Courtright, S., & Manz, C. (2011). Self-Leadership: A Multilevel Review. *Journal of Management, 37*(1), 185-222.

Solojew-Wartiovaara, A. (2019). Päätöksenteon tiedonkäyttö uudistettava. Sitra. Retrieved from https://www.sitra.fi/uutiset/paatoksenteon-tiedonkaytto-uudistettava/

Sydänmaanlakka, P. (2012). *Älykäs organisaatio*. 8th edition, Vantaa: Talentum Media Oy.

Sydänmaanlakka, P. (2014). *Tulevaisuuden johtaminen 2020.* Saarijärvi: Pertec Consulting Oy.

Sydänmaanlakka, P. (2017). *Älykäs itsensä johtaminen.* (4th ed.) Näkökulmia henkilökohtaiseen kasvuun. Turenki: Alma Talent.

Szulanski, G. (1996). Exploring internal stickiness: impediments to the transfer of best practice within the firm. *Strategic Management Journal, 17*(5), 27-43.

Tarafdar, M., Gupta, A., & Turel, O. (2015). Introduction to the special issue on 'dark side of information technology use' – part two. *Information Systems Journal, 25*(4), 315-317. https://doi.org/10.1111/isj.12076

Todnem, R. (2005). Organizational Change Management: A Critical Review. *Journal of Change Management, 5*(4), 369–380.

Tuomi, J., & Sarajärvi, A. (2012). *Laadullinen tutkimus ja sisällönanalyysi*. Vantaa: Hansaprint Oy.

Valli, R. (2018). Parivertailu ja aineistonkeruu. In Valli, R. (Ed.). *Ikkunoita tutkimusmetodeihin 1*, *Metodin valinta ja aineistonkeruu: virikkeitä aloittelevalle tutkijalle.* (5th Ed. pp, 142-155). Keuruu: PS-kustannus.

Van Den Hooff, B., Schouten, A., & Simonovski, S. (2012). What one feels and what one knows: the influence of emotions on attitudes and intentions towards knowledge sharing. *Journal of Knowledge Management, 16*(1), 148-158. https://doi.org/10.1108/13673271211198990

Virtainlahti, S. (2009). *Hiljaisen tietämyksen johtaminen*. Hämeenlinna: Kariston Kirjapaino Oy.

Vilkka, H. (2018). Havainnot ja havainnointimenetelmät tutkimuksessa. In Valli, R. (Ed.). *Ikkunoita tutkimusmetodeihin 1*, *Metodin valinta ja aineistonkeruu: virikkeitä aloittelevalle tutkijalle.* (5th Ed. pp, 156-171). Keuruu: PS-kustannus.

Vuori, V., Helander, N., & Okkonen, J. (2019). Correction to: Digitalization in knowledge work: the dream of enhanced performance. *Cogn Tech Work, 22*(1), 427-433. https://doi.org/10.1007/s10111-019-00543-w

Vuori, V., & Okkonen, J. (2012). Knowledge sharing motivational factors of using an intra-organizational social media platform. Journal of Knowledge Management, 16(4), 592-603. https://doi.org/10.1108/13673271211246167

Vuorinen, T. (2013). *Strategiakirja: 20 työkalua.* Helsinki: Talentum Media Oy.

Väisänen, K. (2019). *Väärää yrittämistä, kun teet kotiläksysi, rahan tuloa ei voi estää.* Helsinki: Alma Talent

Waddington, D. (1994). Participant Observation. In Cassell, C. & Symon, G. (Eds.) *Qualitative Methods in Organizational Research. A Practical Guide*. (pp. 107-122). London: Sage.

Wang, W.T., & Hou, Y.P. (2015). Motivations of employees' knowledge sharing behaviors: A self-determination perspective. *Information and Organization, 25*(1), 1-26.

Wendelin, L. (2013). *Ihmisen aika – Johtajan sielu ja sisu*. Viro: Helsingin seudun kauppakamari.

Widén-Wulff. G. (2007). *The Challenges of Knowledge Sharing in Practice: A social Approach.* Oxford: Chandos Publishing.

Widén, G. (2017). Individual, social, and cultural approaches to knowledge sharing. *Journal of Information Science Theory and Practice, 5*(3), 6-14. https://doi.org/10.1633/JISTaP.2017.5.3.1

Zieba, M., Bolisani, E., & Scarso, E. (2016). Emergent approach to knowledge management by small companies: multiple case-study research. *Journal of Knowledge Management, 20*(2), 292-307.