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JÖNKÖPING UNIVERSITY

An Effective Way of Transferring Knowledge:

A Case Study of Knowledge Transfer

Bachelor thesis within Business Administration

Authors:	Andreas Jacobsson	850522-4033
	Erika Schwerin	861231-3968
	Emma Sundqvist	860718-6924

Tutor: Börje Boers

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JÖNKÖPING INTERNATIONAL BUSINESS SCHOOL
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Andreas Jacobsson

Erika Schwerin

Emma Sundqvist

Jönköping International Business School

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Authors:	Andreas Jacobsson, Erika Schwerin, Emma Sundqvist
Tutor:	Börje Boers
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Abstract

- Purpose:** The purpose of this thesis is to investigate what company-specific variables influence effective knowledge transfer.
- Background:** Knowledge is a topic that has been under increased attention over the recent past. It is vital to learn how to manage knowledge; if used in a correct manner, knowledge can be a strategic weapon that can lead to sustainable profits. A Swedish company serves as a case study showing what variables affect knowledge transfer. To have a functional knowledge transfer mechanism is important for a company's product development and survival. Issues regarding knowledge transfer are identified at the company at hand.
- Method:** The methodology applied in this thesis is of deductive nature and contains qualitative data. A case study of knowledge transfer is investigated. In order to find out how effective knowledge transfer occurs within an organizational department, structured face-to-face interviews with eleven selected employees at Department Y are conducted.
- Conclusion:** Sustaining the purpose of this thesis, the company-specific variables that influence knowledge transfer are identified. In order to reach effective knowledge transfer, an established organizational culture, to have support structures, knowing what type of knowledge to transfer, and how to treat the knowledge recipient are vital variables.

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1 Introduction

Chapter one introduces the background, where the reader is guided to the subject of knowledge transfer. The problem section discusses the opportunity of a better knowledge transfer, which leads to our purpose.

1.1 Background

Knowledge is a topic that has been under increased attention over the past years. This is because of the knowledge-based society we live in today (Clegg, Kornberger & Pitsis, 2008). The knowledge-based society has caused a shift in importance of assembly line workers to knowledge workers. The knowledge worker needs to learn new routines and develop the existing knowledge to be motivated, even though it might be a routine task to perform (Södergren, 1996). It is vital to learn how to manage knowledge; if used in a correct manner, knowledge can be a strategic weapon that can lead to sustainable profits (Choi & Lee, 2002). Managing knowledge leads to the concept of knowledge management.

The development of technology has led to an easier access to the rest of the world, and hence more competition. The value of competitive advantage has increased, and concepts such as knowledge management have grown stronger (Alavi & Leidner, 2001). Within knowledge management, knowledge creation and transfer are underlying concepts (Clegg, Kornberger & Pitsis, 2008). This thesis focuses on knowledge transfer. The discussions on management and creation of knowledge are background theories for the understanding of knowledge transfer.

A Swedish department of a large company is used as a case study within this thesis, and helps to investigate variables influencing knowledge transfer. It is referred to as Department Y within Company X, because the focus lies within internal processes of the company, and hence it wants to stay anonymous. Company X is a knowledge-based firm. The definition of a knowledge-based firm is a group of people and supporting resources that produce and apply knowledge through constant interaction (Zack, 2003). The aim of a knowledge-based firm is to find opportunities to maximize communication, coordination, and interaction among units to create knowledge synergy (Choo & Bonits, 2002).

In order to sustain a firm's competitive advantage it is vital to have a functional knowledge transfer mechanism; it is also important for a company's product development and survival (Osterloh & Frey, 2000). Therefore, to know how to transfer knowledge effectively and to see what variables affecting the transfer is vital for companies (Wijk, Jansen & Lyles, 2008). This makes this thesis relevant within the field of knowledge management.

1.2 Problem Discussion - The Opportunity of a Better Knowledge Transfer

Correctly managed knowledge can lead to a competitive advantage. However, to manage the knowledge assets is one of the major challenges an organization faces (Goh, 2002). This

is because knowledge is an intangible asset and people need to be aware of how to separate the tangibles from the intangibles (Major & Cordey-Hayes, 2000).

When transferring a tangible asset, someone will gain and someone will lose. An example of this is a money transaction. If an invoice is paid, the person paying it will lose money and the person receiving it will gain money. However, this only concerns tangible assets. Knowledge is an intangible asset, and cannot be lost during a transaction. It only concerns the aspect of one party to gain knowledge; it does not necessarily imply that it has to be given up by another party (Major & Cordey-Hayes, 2000).

Table 1-1 Differences between intangible assets and tangible assets (Nonaka & Teece, 2001, pp 3).

	Knowledge (intangible) Asset	Physical (tangible) Asset
How public it is	Use by one party need not prevent use by another party	Use by one party prevents simultaneous use by another party
Depreciation	Does not wear out; but usually depreciates rapidly	Wears out; may depreciate quickly or slowly
Transfer costs	Hard to adjust (increases with the tacit portion)	Easier to adjust (depends on transportation and related costs)
Property rights	Limited (patents, trade secrets, copyrights, trademarks, etc.) and fuzzy, even in developed countries	Generally comprehensive and clearer, at least in developed countries
Enforcement of property rights	Relatively difficult	Relatively easy

The differences between tangible and intangible assets are portrayed in *table 1-1*. An additional difference between tangible and intangible assets is the effect of depreciation. When using tangible assets they tend to decrease in value, for example a machine within a factory wears out and diminishes in value. Knowledge is an intangible asset, which increases in value when used (Syed-Ikhsan & Rowland, 2004). Consequently, knowledge will continue to grow as long as it is shared within an organization. If a manager of an organization has a presentation regarding a financial situation, both the manager and the audience will have the knowledge about the financial situation after the presentation. Even though the manager transferred knowledge, the knowledge has grown in terms of people holding it (Syed-Ikhsan & Rowland, 2004).

One aspect of knowledge refers to public goods, where consumption by one person does not reduce the amount left for another. Knowledge can be compared with a good in the market. If competition increases its price drops, but utility has not declined. Another difference with tangible assets is that they wear out; however, knowledge depreciates due to creation of new knowledge. New knowledge often tends to outdate prior knowledge. To

transfer knowledge or other intangible assets it is most likely free of charge within an organization while tangible assets often carry transfer costs (Nonaka & Takeuchi, 1995).

The problem of transferring knowledge is currently an issue at the case company. Knowledge transfers take time and resources at Department Y, because the lack of abilities to transfer knowledge effectively. Therefore, the department wants to find variables that affect the knowledge transfer in order to reach increased effective knowledge transfer (Arne, personal communication, 2010-02-25).

1.3 Purpose

The purpose of this thesis is to investigate what company-specific variables influence effective knowledge transfer.

2 Theoretical Framework

The theoretical framework chapter consists of two parts, background theory and main theory. Section 2.1 introduces the reader to Knowledge Management, Knowledge Creation, and Knowledge Transfer. Chapter 2.2 deals with the main theory of the thesis, the variables that are influencing effective knowledge transfer. However, these are not the only variables, but the main influences.

2.1 Background Theory

Knowledge transfer is an underlying concept of knowledge management and knowledge creation. These concepts are not analyzed, but provided to understand the main influencing variables of effective knowledge transfer.

2.1.1 Knowledge Management

Management is a human organization; getting people together to work towards common goals and objectives. Furthermore, management concerns of how to lead, organize, direct, plan, and control an organization (Alavi & Leidner, 2001). Ryle and Dennett (2000) describe knowledge in two-fold, knowing *how* and knowing *that*. Knowing how is the knowledge of *how* to do something, to play an instrument for example. While knowing *that* is the knowledge about something. Someone might know a lot about instruments, but that does not mean that a composition of a song is successful. The significance of knowledge and how to generate and transfer it in the best manner has been discussed for many years, but it is not until later years that the weight of the combined expression *knowledge management* is recognized (Alavi & Leidner, 2001).

An effective way of trading information is to communicate with face-to-face directly. Through this process, people can synchronize their physical and mental rhythms and share their experiences (Nonaka & Takeuchi, 1995). Although it is an effective way, it is not always possible. There are situations when interaction face-to-face is not possible. An example of this is if the knowledge owner and requester are situated at different locations or if the knowledge owner is not able to transfer the knowledge. Preferably, the transfer of knowledge occurs when the knowledge requester needs it. However, the knowledge owner might not be available at that time. In such a case, using some other channel to transfer the requested knowledge is necessary. Therefore, when direct interaction is not possible, channels such as videos, humans, books, websites or expert systems are needed (Nonaka & Takeuchi, 1995).

2.1.2 Knowledge Creation

Any organization that operates within a dynamic market is forced to manage information efficiently to strengthen this information and knowledge. These are the underlying principles of innovation according to Nonaka (1994). From a knowledge creation perspective,

innovation is the process where the organization creates and defines problems and develops knowledge to solve problems (Nonaka, 1994). Choi and Lee (2002) define the knowledge creation process as the never-ending social interaction among individual groups in and outside organizations, sharing tacit and explicit knowledge. These individuals are an integral part of the organization; without them, knowledge creation is not possible in an organization (Nonaka, 1994). Exploration and exploitation are also knowledge creation factors, where exploration refers to trying new ideas and processes (Matusik & Hill, 1998). Exploitation refers to enhancing the intellectual capital within the organization with existing knowledge (Choo & Bonits, 2002). To reach a competitive advantage, knowledge is a vital source. How do organizations manage and create knowledge dynamically? The poor understanding in how to create and manage knowledge is to a certain extent the lack of general understanding of knowledge itself and its creation process. To create continuously new knowledge out of existing capabilities is one of the most important aspects of understanding capabilities concerning knowledge. This is more important than to have a certain technology or a stock of knowledge possessed in the future (Nonaka, Toyama & Konno, 2000).

In 1990, Alvin Toffler argued that we live in a knowledge-based society (cited in Nonaka, et al., 2000). To sustain competitive advantage in a world that is rapidly changing, knowledge that enables continuous innovation is an important source. Management considers the capability to create and use knowledge more carefully today in order to sustain competitive advantage (Nonaka, et al., 2000).

Knowledge is dynamic because it is created through social interactions amongst individuals and organizations. Knowledge depends on a certain time and space, and is therefore context-specific. Simply put, knowledge is information with a defined context (Nonaka et al., 2000).

“For example, ‘1234 ABC Street’ is just information. Without context, it does not mean anything. However, when put into a context, it becomes knowledge: ‘My friend David lives at 1234 ABC Street, which is next to the library.’”

(Nonaka, Toyama & Konno, 2000, p. 7)

2.1.3 Knowledge Transfer

Argote and Ingram (2000) define knowledge transfer as the following:

“Knowledge transfer in organizations is the process through which one unit (e.g., group, department, or division) is affected by the experience of another.”

(Argote & Ingram, 2000, p.386)

Sharing knowledge creates knowledge, which means that a knowledge transfer carries out at the same time. Because, if a person does not share knowledge, the knowledge cannot be transferred which leaves the unit unaffected (Argote & Ingram, 2000).

Parent, Roy and St-Jacques (2007) state that the complexity of knowledge transfers arise from social constructions. If employees are working in groups with high level of cooperation, transferring and sharing knowledge is improved. Transferring knowledge is a way of proposing a change because it is new knowledge for the receiver. A knowledge transfer is a way of forming existing knowledge to fit into a new context (Parent et al., 2007).

Finding ways to transfer knowledge effectively is crucial for the organizational processes and outcomes, because transferring knowledge is a cost for a company in terms of time and effort (Reagans & McEvily, 2003). One way of making the transfer process more effective is to reward and encourage the employees to share and transfer knowledge with each other, within, and between teams. This benefits the whole organization, because products and work processes can improve (Goh, 2002).

2.2 Main Theory – Variables Influencing Effective Knowledge Transfer

In the main theory, the reader gets a deeper understanding of what variables influencing effective knowledge transfer. The variables Organizational Culture and Support Structures, can lead to a Higher Propensity to Transfer Knowledge, figure 2-1. Higher Propensity to Transfer Knowledge combined with two other elements, Knowledge Recipient and Types of Knowledge, can lead to an effective knowledge transfer, figure 2-2.

2.2.1 Higher Propensity to Transfer Knowledge

In order for a team to function well, collaboration has to occur. This collaboration takes place within the organizational culture. A satisfied leadership, problem-seeking and -solving, and high trust are important elements within organizational culture that lead to collaboration. If individuals are well familiar and satisfied with the culture, they are more willing to transfer knowledge. When individuals collaborate, they improve the problem-seeking and -solving processes (Goh, 2002). Individuals also have to be able to carry out these activities and need some kind of support from the organization itself. Using cross-functional teams reduces the hierarchy and the teams are able to communicate horizontally (Cialdini, 2001). Reward systems are useful because they encourage the employees to become motivated and create a better harmony (Goh, 2002). All these factors lead to higher propensity to transfer knowledge that in turn leads to effective knowledge transfer (Goh, 2002). Organizational culture and support structures influence the propensity to transfer knowledge as shown in figure 2-1.

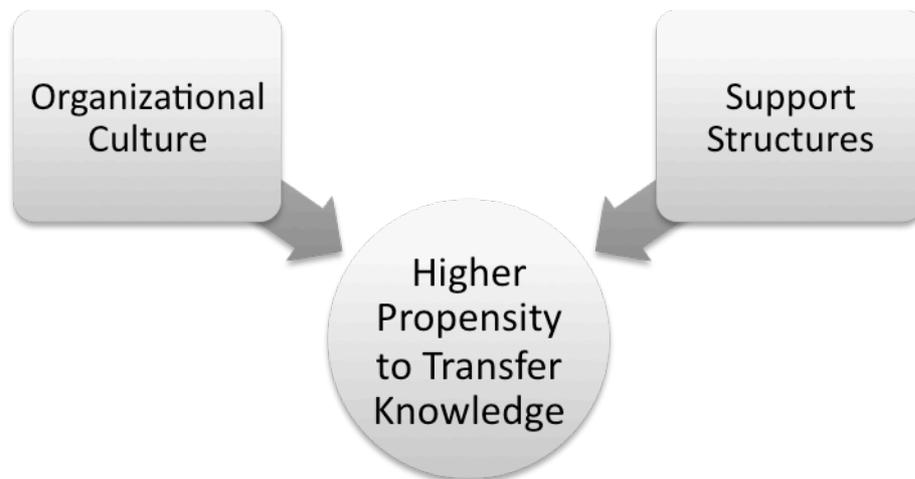


Figure 2-1 Variables influencing higher propensity to transfer knowledge.

Source: Developed for this thesis, based on Goh's (2002) model *An integrative framework: factors influencing effective knowledge transfer*.

2.2.2 Organizational Culture

One basic definition of organizational culture is the shared values and norms among the organizational members (Kostova, 1999). Organizational culture is the major variable affecting knowledge creation and knowledge transfer (Alavi, Kayworth & Leidner, 2006). Therefore, it is important to have a functional organization, a supportive and group rewarding culture (Goh, 2002; Bollinger & Smith, 2001). The organization needs to have norms in line with the company goals to achieve effective knowledge transfer. In other words, the organizations should emphasize in its culture that transferring knowledge is important (Syed-Ikhsan & Rowland, 2004). Bollinger and Smith (2001) argue that the employee is more willing to transfer knowledge if the organizational culture displays trust. Research made by Alavi et al. (2006) shows that having different organizational culture values within an organization has a negative impact on knowledge transfer. This becomes a challenge for the leaders, to make the organization work for the same cultural values.

O'Dell and Grayson (1999) argue that people and culture are the underlying principles of knowledge transfer. Transferring knowledge is a shared activity because it happens between people. It is also due to the complexity of practices in the context. To allow an efficient knowledge transfer to make a difference, it is important to connect the people who can and are most likely to transfer their knowledge.

Elements that affect the knowledge transfer are a collaborative culture, and leaders with a problem-seeking and problem-solving approach (Goh, 2002). The following two subsections deal with variables that can lead to collaboration. The authors agree with Goh (2002), that collaboration is an important part of knowledge transfer. Therefore, the emphasis lies on collaboration in this section.

2.2.2.1 Trust Leads to Collaboration

Co-workers must depend on each other to accomplish their organizational and personal goals, because working together most often involves interdependence. The cooperation tends to be more effective when achieving mutual trust among employees. There could be individuals who do not trust each other but still work together, in this case, the degree of transferring knowledge decreases (Mayer, Davis & Schoorman, 1995).

The spreading effect of knowledge transfer is a 'spiral of organizational knowledge creation'. It begins at the individual level, continues at group level, and finishes at the firm level. Consequently, the increase of individuals' interaction affects the increase of spreading knowledge within the entire organization (Smith, 2000). The increase of individuals' interaction increases the trust and cohesiveness within the organization. Cohesiveness within the organization removes the boundaries that decrease the knowledge transfer. The knowledge is now important to both the knowledge owner and the recipient. Having high trust and cohesiveness within the organization increases the relationship among the employees. A good relationship affects the knowledge transfer positively due to the strong ties and frequent communication. Good relationships among the employees enable the different members to devote more time and effort to help each other (Reagans & McEvily, 2003). The relationship can improve through different work and non-work related activities, such as team-building and private initiatives by the employees (Heermann, 1997). In this thesis, the relationship involving individual interaction and cohesiveness is referred to as experimental culture.

According to Jackson, May & Whitney (1995), people who come from different backgrounds and have unfamiliar views are less likely to trust each other (cited in Webber, 2002). Therefore, diverse individuals are not as effective together as individuals from the same culture and background are. Examination of processes necessary for effective project team performance includes: coordination, cooperation, and communication, according to Ancona and Caldwell (1992) and Cohen and Bailey (1997), (cited in Webber, 2002). Janz, Colquitt and Noe (1997) have conducted a study examining the relationship between team processes and team performances (cited in Webber, 2002). The team processes consist of information sharing, meaning communication, and helping behavior, meaning coordination. Between the team processes and team performances there clearly is a positive relationship. The founding of the research is to reach a more effective team performance, cooperation, coordination, and communication. These are important factors, which have to run smoothly and effectively (Webber, 2002).

Mayer et al. (1995) confirm that greater knowledge exchange comes from trusting relationships. People are more willing to give useful knowledge when trust exists. Trust also makes people more willing to absorb and listen to others knowledge (Levin & Cross, 2004). According to Currall and Judge (1995) and Zaheer et al. (1998), trust can also make knowledge transfer less costly by reducing conflicts and the need to confirm information (cited in

Levin & Cross, 2004). These effects show in a variety of settings at the individual and organizational levels of analysis (Levin & Cross, 2004).

2.2.2.2 Leadership Affects Problem-Seeking and Problem-Solving

Leaders have a great influence on the organizational culture required for knowledge transfer (Goh, 2002). A good leader should not blame or punish an employee if a problem arises. Neither should the employees be punished when experimenting or trying a new practice that fails. Instead, leaders should encourage and act as a role model for new experiments and practices. If leaders make mistakes, they should not act defensive, rather admit their mistake and take a problem-solving approach. Consequently, leaders play a vital role in both problem-seeking and -solving, and the collaboration within an organization (Goh, 2002).

A collaborative problem-solving refers to when people work together in a group or organization to solve problems and make decisions. Straus (2002) defines a problem as a situation someone ‘wants to change’, and problem-solving as ‘situation changing’. A process that is independent of content describes a collaborative problem-solving approach. There is neither a right way to solve problems nor a right way to collaborate. Hence, collaborative problem-solving is a trial-and-error process. This is vital to know, especially when group members are in conflict of the right way of approaching a problem (Straus, 2002). Companies should emphasize teamwork, and use and create cross-functional teams frequently to form a strong culture. When encouraging information sharing and knowledge transfer, that leads to collaboration, the problem-seeking and -solving process culture is enhanced (Goh, 2002).

2.2.3 Support Structures

To strengthen and sustain a suitable infrastructure is an important factor of knowledge transfer. A first factor of support structures is organizational design. A hierarchical level is not a suitable infrastructure for knowledge transfer. In hierarchies, the knowledge tends to stay in one area and does not move easily across the organization to other areas (Nonaka, 1994). According to Goh (2002), a better way is to use teamwork, preferably cross-functional teams with horizontal communication. To start the horizontal communication, tasks that require individuals from different areas to collaborate in cross-functional teams are appropriate (Goh, 2002).

Reward system is the second support structure. During formal meetings, a leader can observe and reward individuals for transferring knowledge to the others in the group. However, unless the leader is a part of a team, individual informal knowledge transfer is hard to measure (Batrol & Srivastava, 2002). Instead, teamwork with indirect-rewards, such as informal appreciations should be used. Indirect-rewards require knowledge transfer within the group to succeed, but are based on other factors (Batrol & Srivastava, 2002). According to Dulebohn and Martocchio (1998), teams have the advantage of collaboration and harmonization, and are able to motivate each other and focus on group goals and perform-

ances (cited in Batrol & Srivastava, 2002). Knowledge sharing is likely to improve with indirect team-based reward systems and by rewarding individual formal sharing (Batrol & Srivastava, 2002).

Time is a third support structure factor that influences knowledge transfer. To change the company structure to a horizontal communication can take time to achieve. The time to implement new structures and practices for a company may be fast, but the employees need time to adjust and explore them (Goh, 2002).

2.2.4 How to Reach Effective Knowledge Transfer

Effective knowledge transfer is to recognize the necessary knowledge and to transfer it in an appropriate way (Chini, 2004). Knowledge transfer is one of the underlying variables of knowledge creation and innovation. Having effective ways of transferring knowledge enhance the speed and the success of innovations. Innovations are important because they influence the survival of an organization (Cavusgil, Calantone & Zhao, 2003). The effectiveness of the knowledge transfer is dependent on how the knowledge owner delivers the knowledge, and how the knowledge receiver interprets the knowledge (Garavelli, Gorgoglione & Scozzi, 2001). Figure 2-2 summarizes different variables that lead to effective knowledge transfer; knowledge recipient, higher propensity to transfer knowledge, and types of knowledge. It is important to know that the knowledge transfer cannot be effective without the correlation of those variables (Goh, 2002). One factor that allows the organization to have a more effective knowledge transfer is not to rely on single key employees. A key employee is referred to as someone with expertise knowledge within an own field. Sharing their knowledge with the other employees reduces the natural boundaries of knowledge transfers and sharing (O'Dell & Grayson, 1999).

Goh (2002) and O'Dell and Grayson (1999) argue that the organization needs to create a collaborative working climate and a supporting structure to enable effective knowledge transfer. Effective knowledge transfer is achievable if the organization removes all the obstacles that prevent the transfer to take place, such as rivalry between colleagues (Probst, Raub & Romhardt, 2000).

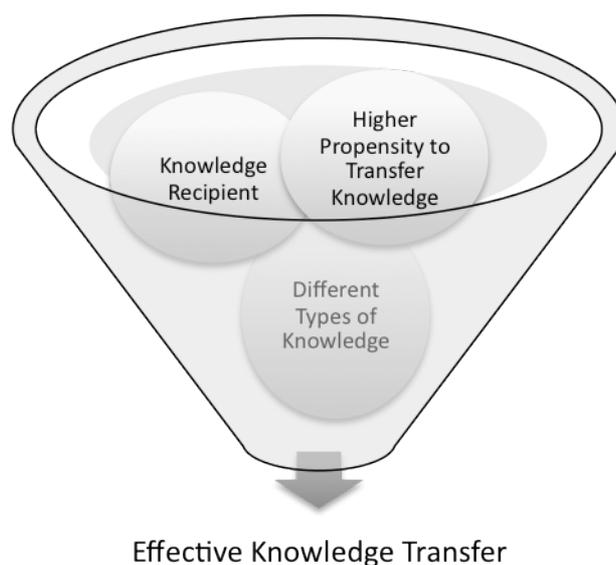


Figure 2-2 Elements influencing effective knowledge transfer.

Source: Developed for this thesis, based on Goh's (2002) model *An integrative framework: factors influencing effective knowledge transfer*.

2.2.5 Knowledge Recipient

To ensure effective knowledge transfer, a close relationship with people with equivalent skills and knowledge capacities has to be developed and fulfilled (Goh, 2002). Findings show that people prefer to receive information from other people rather than documents. Allen (1977) found that engineers and scientists were about five times more likely to receive information from a person than from a document (cited in Levin & Cross, 2004). Recall from knowledge creation, knowledge is information with a context. Findings that are more recent agree: people who have access to the Internet and organizational intranet still rather turn to other people for information (Cross & Sproull, 2004). However, a weak knowledge transfer can be the result if the recipient lacks motivation and sustained competence. This can be improved by experimenting and developing creativity, so stimulation is increased (Goh, 2002). Burt (1992) states, in order to acquire information relationships are important (cited in Levin & Cross, 2004). Lave and Wenger (1991) continue and claim relationships are important when learning one's work and solving complex problems (cited in Levin & Cross, 2004).

2.2.6 Types of Knowledge

It is important to know the types of knowledge for organizations, because there are different ways of transferring them. Individuals need to know what type of knowledge in order to use the right knowledge transfer process (Goh, 2002). By knowing this, the process of transferring knowledge is more likely to be effective combined with the other mentioned variables. There are two dimensions within knowledge creation: ontological and epistemological. The ontological dimension states that an individual, a group, or an organization car-

ries out the creation of knowledge. The epistemological dimension simply means theory of knowledge. The knowledge within this dimension separates into two subcategories. These are found in *table 2-1* and refer to tacit knowledge and explicit knowledge according to Michael Polanyi (1966) (cited in Nonaka & Takeuchi, 1995). Tacit knowledge is hard to formalize and communicate because it is face-to-face and context-specific. Explicit, also known as codified knowledge is communicable in formal and systematic language. Explicit knowledge spreads in the form of data, specifications, manuals, or scientific formulae. It can be stored, transmitted, and processed relatively easy (Nonaka & Takeuchi, 1995).

Table 2-1 Two types of organizational knowledge (Nonaka & Takeuchi, 1995, pp.61).

Tacit Knowledge (Subjective)	Explicit Knowledge (Objective)
Knowledge of experience (body)	Knowledge of rationality (mind)
Simultaneous knowledge (here and now)	Sequential knowledge (there and then)
Analog knowledge (practice)	Digital knowledge (theory)

Tacit knowledge, which is the opposite of explicit knowledge, is hard to formalize and highly personal (Nonaka et al., 2000). Tacit knowledge is ‘rooted in’ routines, values, ideals, procedures, actions, commitment, and emotions. Tacit knowledge is an analogue process, and is therefore difficult to communicate. One reason is, according to Argote (1993), is that knowledge acquired from learning by doing is individual and cannot be easily transferred (cited in Syed-Ikhsan & Rowland, 2004). According to Zander and Kogut (1995) and Hansen (1999), tacit knowledge takes time to learn and explain, so it tends to slow down transfers and projects (cited in Levin & Cross 2004).

3 Propositions

Chapter three presents six propositions based on the main theoretical framework. They are created in order to fulfill the purpose of the thesis.

The propositions are chosen because the authors believe they are potential variables that influence effective knowledge transfer.

1. Organizational culture relates to knowledge transfer
2. Collaboration leads to higher propensity to transfer knowledge
3. Trust and experimental culture is positively correlated with collaboration
4. Reward systems promote knowledge transfer
5. Employees' most preferable way to receive knowledge is from a co-worker
6. Tacit knowledge is preferred over explicit knowledge

4 Method

This chapter presents the methods used when conducting this research. The main method for data collection is through structured interviews. An introduction to the case company is provided, as well as a brief description of the interviewees.

4.1 Research Approach

The definition of a research design is “a logical plan for getting here to there” (Yin, 2003, p.20). Getting here refers to the determined questions for the research to be answered. Getting there refers to the conclusions and answers of the questions. In the gap between here and there, are steps that concerns data collection and analysis. In this thesis, the authors decide to use propositions. A proposition aims to examine something within the field of study (Yin, 2003).

There are different ways of conducting a research: exploratory, explanatory, and descriptive. An exploratory study is conducted when little or no information about the research exists. The aim is to understand the problem better. One way of doing it is through interviews. This enables the researcher to get a better understanding of the phenomena that is investigated (Sekaran, 2003). An explanatory study is suitable when the aim is to describe why a certain phenomena arise. This type of study applies when something about the cause and action is to be found (Jacobsen, 2002). A descriptive study approach is suitable when the researcher wants to investigate and describe the characteristics of the variables that the research concerns. The aim is to present or describe relevant aspects of the investigated phenomenon. It is common to implement a descriptive study when researching the characteristics of an organization (Sekaran, 2003). Because it is investigated what company-specific variables influence effective knowledge transfer, this study is descriptive.

A way of using theories as a comparison tool towards the interviews is a deductive methodology approach. The usage of a deductive approach is beneficial when trying to understand a phenomenon from earlier research, to see whether this makes sense or not when it is compared to reality. This thesis is based on a case study of knowledge transfer where theory is compared to reality, and therefore the deductive methodology approach is used. An inductive approach works in the opposite direction of the deductive. The researcher collects data, compiles it, and bases the theory from the findings (Jacobsen, 2002).

4.2 Data Collection

There are different studies, which require different methods depending on the choice of purpose. The most basic distinction is probably when deciding on using a qualitative or a quantitative approach.

A quantitative method uses mathematics and statistics. Furthermore, it has more structured guidelines, and is more clear and formalized (Holme & Solvand, 1997). The authors believe a qualitative study is best suited for this thesis. This approach characterizes the data instead of quantifying it. A qualitative research is flexible, the research can adjust along the process and it focus on acquiring deeper understanding (Holme & Solvand, 1997). Ryen (2004) argues that one use qualitative data to get information that is of relevance for the research, rather than a comparison between different variables. This method allows the authors to study the knowledge transfers in-depth and produce detailed information. The purpose of this study is to investigate the variables that influence effective knowledge transfer where increased understanding is needed. Therefore, it is most suitable to use the qualitative method. Furthermore, knowledge is abstract, as well as knowledge transfer and cannot be easily quantified or standardized (Patton, 1990). The qualitative data is gathered from interviews. The aim is to investigate how the interviewees view the problem and relate the answers. Ryen (2004) argues that it is the quality of the answers that makes the answers reliable, and not the amount of interviewees.

4.2.1 Case Study – Department Y

One purpose of a case study is to present an in-depth description of a specific case, where the knowledge is little or nothing (Thomas, 2004). A case study involves a research strategy, which aims at understanding the dynamics present within single settings (Eisenhardt, 1989). Using a case as a research strategy involves intensive examination of a small number of units of interest, where the units can be of any size. The range of the unit is from one individual to entire industries (Thomas, 2004). Thomas (2004) also states that focus on a single case instead of multiples, enables the researcher to get deeper understanding and more theory construction. The authors want a deeper understanding of how to transfer knowledge effectively, and hence one case study is chosen.

Through personal contacts, Department Y was recognized with a problem; not knowing how to transfer knowledge effectively. This caught the attention of the authors and the decision to base a thesis on a case about knowledge transfer. Department Y is a case study of knowledge transfer to relate theory with practice. Furthermore, it is an investigation to see what variables influence the knowledge transfer at Department Y. The aim of the thesis is not to solve Department Y's problem, rather investigate what company-specific variables are influencing effective knowledge transfer.

Department Y with 65 employees is a Swedish subdivision of Company X which is investigated in this thesis. Further observations from Department Y are found in the empirical findings chapter. Company X is a global IT and business service company, employing 40,000 people. It sees itself as unique in the way they deliver innovation solutions to business related problems. Matching the best people from all over the world with the best technology available is its secret of success. Company X operates in various fields such as business consulting and system integration. By working closely with the customer, it can

ensure to enable change in order to increase efficiency, accelerate growth and manage risks. With its deep knowledge within the industry about IT and international delivery capacity, it reinforces its customers' competitiveness.

4.2.2 Primary and Secondary Data

Both primary and secondary data are used in this thesis. In order to understand the problem and primary data, the secondary data is used to support it. The primary data concerns collection of new data for a specific purpose (Burns, 2000). The authors collect the primary data from face-to-face interviews and necessary follow-ups by e-mail at Department Y.

Data that is already gathered for another purpose related to the topic that is researched is secondary data (Saunders, Lewis, & Thornhill, 2003). The secondary data in this thesis is the theoretical framework that functions as a base for the case study. In this thesis, the secondary data consists of scientific articles, books, and corporate website information. The university library and the library search engine are used to obtain the secondary data. This is to get access to different forms of business research.

4.2.2.1 Interviews

Using interviews as a tool of collecting data within business administration is a frequently used method. An interview is one way of collecting primary and qualitative data (Jacobsen, 2002). Saunders et al. (2003) argues that an interview is a data collection method that ensures validity and reliability, which is relevant to propositions. It is vital to develop the interview questions that are relevant to the purpose, research strategy and the propositions. The interview questions aim is to find out how the interviewees organize their knowledge, i.e. structural questions (Thomas, 2004).

When developing the interview questions, the researchers need to decide what type of interview they should make. Should the interview be formal and structured using standardized questions, or should it be informal with an unstructured conversation (Saunders et al., 2003). Standardized questions refer to have the same questions to all the interviewees. The unstructured interview uses less standardized questions. When comparison among the interviewees is necessary, a standardized set of questions is preferable (Arbnor & Bjerke, 1997). Once identifying the interview method, the researcher needs to decide how the interview will take place: face-to-face interview, telephone interview, mail questionnaire, or a group questionnaire (Arbnor & Bjerke, 2008).

When conducting interviews, the interviewer might influence the interviewee. This is called the interviewer effect (Arbnor & Bjerke, 2008). To limit the amount of this effect, several preparations are possible. The interviewers approach to questioning, own preparation and readiness for the interview, the amount of information that the interviewee has received, and the interviewer's way of recording the interview influences the interviewer effect (Saunders et al., 2003).

The unstructured interview is appropriate when a researcher wants to identify issues (Sekaran, 2003). It is vital to have a clear idea of the research aspects. An unstructured interview gives the opportunity to talk freely about events and behaviors in relation to the topic (Saunders et al., 2003). A staff manager, Arne, at Department Y was contacted by telephone to obtain an overall picture of the problem. An unstructured interview was carried out during the phone call. The reason for the usage of an unstructured interview was the lack of information about the problem, involving transferring knowledge, at Department Y. This information was only gathered in order to locate Department Y's problem, and it did not have predetermined questions. Therefore, no appendix of this interview is provided. To have a telephone interview in this stage of the research process was identified as the most appropriate method by the authors. This was due to the time limit at the case company and the distance to the company.

The base of a structured interview is on standardized and predetermined set of questions. Most likely, the identification of these questions show during the unstructured interview (Sekaran, 2003). All the questions should be asked in the same order to all of the interviewees (Burell & Kylén, 2003). The interviewer may ask the interviewee other questions that occur during the process. This is a way to identify new factors, which can result in a deeper understanding (Sekaran, 2003). The structured interview involves three phases: the opening phase, the question-answer phase, and the closing phase (Thomas, 2004). The opening phase involves greetings and explaining the research or interview. It is important not to rush through this phase. The next phase, the question-answer phase, is the most vital part of the interview. Here, all data is collected. Factors to consider are:

- How the questions are delivered
- How well the interviewer is listening
- How will the interview be recorded
- How to use the given time for the interview

The closing phase involves showing gratitude to the interviewee for participation, if necessary ask the interviewee for follow-ups (Thomas, 2004).

A third way of conducting interviews is a mix of an unstructured interview and structured, and is known as a semi-structured interview (Myers, 2009). In a semi-structured interview, the questions are worded differently to the different interviewees. This to ensure that each question has the same meaning to the respondents. It consists of both predetermined questions and unrelated questions (Thomas, 2004). There is no predetermined order to ask the questions. This is dependent on the interview (Saunders et al., 2003).

The main part of this thesis is structured interviews with standardized open questions. The reason for this is to prevent predetermined sets of answers. One example of a predetermined set of answers is a scale in a questionnaire (Saunders et al., 2003). To have standardized open questions enables the interviewees to elaborate on the answers, and the authors

to identify new factors. Along the interviews, additional questions that arise from the respondents' answers were asked. Because the additional questions are specific to each respondent, they are of semi-structured nature. The additional questions were used to obtain elaborative and thoroughly explained answers from the respondents.

4.2.2.2 The interviewees

Suitable candidates for interviews are what concern the choice of respondents according to Lundahl and Skärvad (1999). The choice of respondents in this thesis is based on what is possible and available. According to Lundahl and Skärvad (1999), in the area of interest, the respondents are experts. This is recognized by their ability to transfer knowledge and their awareness. The choice of suitable candidates in this thesis is based on the judgmental approach, meaning choosing the respondents who can help to fulfill the purpose by sharing their knowledge and own experiences. When deciding how many respondents should be included, a discussion with the staff manager, Arne, at Department Y was carried out. Respondents with different positions and expertise with different lengths of employment was requested to see if the transfer of knowledge is affected by that. Eleven respondents were suggested; these respondents were evaluated and it was decided that they are all appropriate to fulfill the purpose.

To compliment the data gathered from face-to-face interviews, e-mails are used for follow-up questions. The collection of data is from interviews with Department Y representatives and is mainly done by face-to-face interviews. This is an appropriate way because the interviewer can help the interviewee to understand the question if necessary by rephrasing it. This ensures that the correct data is collected. Body language and emotions can also be detected during a face-to-face interview (Sekaran, 2003). However, one negative impact of face-to-face interviews is that body language and emotions are hard to translate into text. Additionally, geographical limitation is another disadvantage with face-to-face interviews (Sekaran, 2003). The authors investigate how knowledge is being transferred at Department Y. To obtain detailed answers, face-to-face interview is found as the most appropriate method.

The e-mail questions are used for follow-up questions, and the same questions were sent to all interviewees. According to Sekaran (2003), an e-mail questionnaire is good because the interviewee can answer the question whenever they have time to do it, and do it in their own pace. The researcher can also reach out to a larger group in a short amount of time. E-mail follow-up questions are used as a method of data collection due to the employees time limitation at Department Y. The e-mail questionnaire is time saving both for the interviewees and the authors.

An interview is according to Jacobsen (2002), a good way when the interest lies within getting to know how the interviewees interpret the situation. The information we can access from the company representatives is also information of that department that we cannot receive anywhere else. The interview questions from the face-to-face and e-mail interviews

are found and incorporated in *Appendix, 1*. The interviews aim to investigate how the department transfers its knowledge.

The authors have collected results from eleven different face-to-face interviews. In order to reassure the validity, variables that are included are:

- *Fictive names* – Not to reveal the interviewee
- *Gender* – To see if there are any differences between female and male interviewees
- *Position* – To see if different positions influence knowledge transfer in different ways
- *Tasks* – To distinguish between interviewees
- *Number of years employed* – To see if there is any difference in knowledge transfer based on experience within the company
- *Type of interview* – To provide the interview method, and to strengthen the validity of the empirical data
- *Length of face-to-face interview* – To strengthen the validity of the empirical data

See *table 4-1*. The interviewed employees are spread out in the department that enables a full perspective on how they transfer knowledge. The interviewees were asked the same questions, but due to different speed and elaboration in their answers, the interviews vary in length. Therefore, it does not influence the reliability. The interviews were carried out 2010-04-13 and 2010-04-14.

Table 4-1 The interviewees

Fictive Name:	Gender:	Position:	Task:	No of years employed	Type of Interview	Length of Face-to-face Interview
Arne	Male	Staff Manager	Human resource	10	Face-to-face, telephone, and e-mail	28 min
Beatrice	Female	Staff Manager	Human resource	17	Face-to-face, and e-mail	24 min
Cecilia	Female	Product Area Manager	Supervision of product development, and customer follow-ups	19	Face-to-face, and e-mail	28 min
David	Male	Product Manager	The link between the customer and the development	19	Face-to-face, and e-mail	39 min

Eric	Male	Business Developer	The link between the customer and the consultant	1	Face-to-face, and e-mail	19 min
Filippa	Female	Business Developer	The link between the customer and the developer	6	Face-to-face, and e-mail	22 min
Gabriella	Female	Business Developer	Development and support	13	Face-to-face, and e-mail	19 min
Henrik	Male	System Developer	Programming	2.5	Face-to-face, and e-mail	26 min
Ian	Male	System Developer	Programming	0.5	Face-to-face, and e-mail	22 min
John	Male	Software Architect	The architecture of system	6	Face-to-face, and e-mail	17 min
Karen	Female	Team Leader	Leading one of three teams	12	Face-to-face, and e-mail	24 min

4.3 Analyzing the data

Pickard (2007) suggests one method called the constantly comparing analysis, which is adopted in this thesis. This method measures data by comparing one portion of data to the other data that is either similar or different. This enables the authors to develop their own ideas by gaining insight. Consequently, potential relations between the portions of qualitative information and data can be realized.

There are three strategies how to conduct analysis, according to Yin (2003). The first is developing a case description; here a plan is needed when analyzing the empirical findings. The second strategy involves thinking about rival explanations where the researchers analyze the empirical data critically. The third strategy is relying on theoretical propositions. This is the chosen method for this thesis and it entails that the empirical findings are analyzed with a theoretical base.

The conducted interviews contain questions concerning how to transfer knowledge, based on the theoretical framework, and presented under the proposition with relation to the question. The presentation of empirical findings is as the most frequent answer from the interviewees; highlighting some answers as citations. The citations back up the empirical

findings, by giving them more reliability (Priest, 2010). After collecting the results and compiling them, the six propositions are tested by looking at the most frequent answer of the respondents. From the findings, general understandings are recognized and analyzed.

4.4 Validity and Reliability

Validity refers to if the study measures what it is supposed to measure (Bryman & Bell, 2003). To check whether the interview questions for the research is valid or not is to answer two questions: Is the data collected representative to the propositions? Can the data be used when analyzing and making conclusions? The base for the interview questions is the theoretical framework as well as the propositions. This reinsures that the collected data is representative, and analyzing it is possible. One variable that may affect the empirical results is that the representatives have been a part of Department Y for different amount of times. Therefore, they may have different experiences and interpretations. In the result it shows if this influence their experience and interpretations. If the employees who have little experience in Department Y are not able to provide solid answers due their lack of experience, they are excluded, to reinsure the validity.

Reliability refers to whether the same results can be obtained again after doing the research or if there are other random variables affecting the result. In other words, it is included to check the consistency and trustworthiness of the study (Bryman & Bell, 2003). A question to ask when checking the reliability is: Can the interview collect homogenous data? The likelihood of encountering homogenous answers is high because all the interviewees receive the same questions. Structured ways of collecting the data will increase the reliability (Burell & Kylén, 2003). To make sure to capture all information, recording the interview is important (Jacobsen, 2002). All interviews that are conducted are recorded and transcribed.

When basing a research on interviews, misinterpretation is a crucial issue. The risk for misinterpretations increases in this thesis as the interviews are translated from Swedish to English. To avoid this, the authors have translated the data collected separately, then compared and consulted on the best translation. The data was translated separately, so the authors would not be affected by each other's opinions. This is to increase the validity and reliability of the thesis.

It is important as Svenning (2003) states to have both internal and external validity. The internal validity is about relating the theory to the empirical findings, and the external validity is about the project as a whole (Jacobsen, 2002). The internal validity of this thesis is when relating the interview questions to the theories. Because the base of the findings is on one organization, it makes it hard to generalize which is a limitation to the external validity.

Jacobsen (2002) argues that it is important to both criticize previous research and the obtained result, which will improve the validity of the report. To get a more valid and reliable result from the interviews, the choice is employees in different positions with different experience. This is to make sure the internal information is from all aspects of the company.

It is also a way of finding where in the organization the problem regularly occurs and why (Ryen, 2004).

Something that might affect the internal validity is time limit. The time limit allowed the authors of this thesis to meet the company representatives once, which might influence their answers at this specific meeting. Having only one point in time to base the conclusions on can be a limitation (Jacobsen, 2002). To overcome this limitation, collecting contact information from each respondent for further questions or follow-ups is preformed.

5 Empirical Findings

Chapter five presents the findings from the interviews with the employees at Department Y. Only relevant answers to fulfill the purpose are presented, where the most interesting answers are presented as quotes. The general answers are provided as summaries.

5.1 Company and Department Profile

To be able to understand the empirical findings better, observations that were made during the interviews are presented. Furthermore, factors at Department Y that influence its knowledge transfer, such as the structure and values of the department, are provided. An integral part of Company X's business is innovation. The innovation thinking helps the customer, for example by adding extra value for its stakeholders. The base of a successful innovation according to Company X is technology, creativity and the organization, see *figure 5-1*.

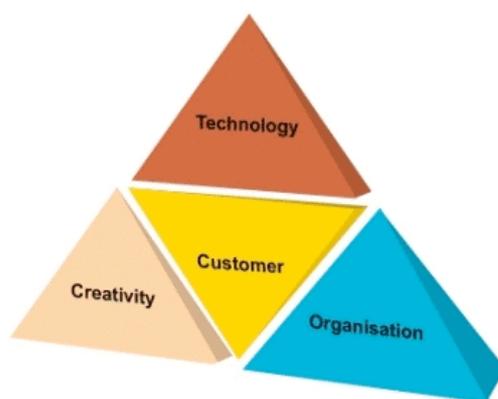


Figure 5-1 Successful innovation

Source: Company X corporate website

Technology is the most important part of the pyramid. This is, according to Company X, the base for renewal. Creativity plays a vital role in the sense of reusing already established technology to find new solutions. The organization's part of the pyramid is to maintain the competence and this is where the knowledge transfer occurs. It is important for the organization to know how to reuse and develop the competence and knowledge.

When visiting Company X, observations of the office were made. The department, Department Y, has an open landscape profile, i.e. no walls or rooms are used to separate the employees. All of the employees with different positions are working in the same room. If an employee is busy and does not want to be disturbed, headphones indicate this. The open office encourages the employees to interact more and help each other. If the employees' need to have meetings or problem-solving discussions, separate meeting rooms are available. When a problem arises, the usage of such rooms is common.

The investigated department consists of three main teams, where each team has different tasks. Each team has different routines and tasks to work with. In the end, all of the three teams' outcomes become the final product. The formations of the teams are based on knowledge and experience in order to match the project; sometimes cross-functional teams are used.

5.2 Organizational culture relates to knowledge transfer

To see if there is an established culture within the company, the interviewees were asked to explain their organizational culture. This was an additional question sent by e-mail. Many respondents did not know what organizational culture is, and hence could not answer the question. Therefore, an additional e-mail with an explanation of what an organizational culture is was sent out. After this, some employees could still not answer the question. The interviewees who could answer the question had diverse opinions.

“Be brilliant together’, the rest is a research assignment, and can’t be described in an e-mail -there is no time for it- which is also a part of the organizational culture.”

Business Developer, Filippa

“I don’t really know what our organization’s culture is, but I know that we have an internal culture to work close to customers and to find solutions and to solve problems.”

Product Area Manager, Cecilia

Eric thought that it exist very many old habits within the department, and that it suffers from inertia. Furthermore, he thinks this prevents the department to grasp new tools and processes. He experiences that Department Y wants to trot as it always has done. However, there have been updates that he experience very good and necessary. Karen continues to say that there is no established culture, and she thinks it is due to that Company X has merged with many other companies since the 1990's. In other words, Company X is a mixture of different companies. To see what changes the interviewees would suggest for improvement of the organizational culture, the question on how to alter the organizational culture was asked. The interviewees suggest a less hierarchical structure with more openness. They want better information on what is going on within the company, as well as a better feeling of believing that the company actually cares about them.

A question regarding how the organizational culture promotes the knowledge transfer is raised to investigate if the culture can change in order to improve transfer.

“We often work in teams to solve problems.”

Software Architect, John

“Open landscapes, like we have, are good for collaboration.”

Business Developer, Eric

The knowledge transfer is not enhanced within the culture according to the interviewed employees. However, Eric and John’s comments show that collaboration is emphasized within the company. One of the staff managers expresses that knowledge transfer still takes place without anyone noticing it; it is more or less taken for granted. To see if problem-seeking and –solving emphasizes collaboration, it is asked if Department Y has a problem-seeking and –solving approach in the organization.

“We are very solving-oriented. I think this is typical for an IT-company. It is in our business idea to solve the customers’ problems and demands.”

Staff Manager, Beatrice

There is a clear problem-solving attitude within the company according to the interviewees. Cecilia agrees with Beatrice, and states that the problem-solving is greatly emphasized within the company. Overall, the interpretation among the interviewees is positive. However, it is unclear if there is a problem-seeking approach because no one agreed or disagreed to the question.

To be able to analyze the first proposition, *organizational culture relates to knowledge transfer*, it is important to understand the concepts of organizational culture and knowledge transfer. Therefore, the question on knowledge transfer is asked to see whether the interviewees understand it or not.

“How the knowledge that already exist within the company can spread between individuals. And how the knowledge can be taken care of so you won’t invent the wheel over and over again.”

System Developer, Henrik

There is a mutual understanding of what knowledge transfer is among the interviewed employees. The common interpretation is a communication between two individuals, how one individual can gain from someone else’s experience. David expresses that knowledge transfer is about leaving information, so that someone else can take over in respect of either the same work task or overlapping work tasks. Gabriella refers to it as competence-development, that an individual is developed, which she thinks makes the company less vulnerable.

5.3 Trust and experimental culture are positively correlated with collaboration

In general, all interviewed employees have great trust in their first-hand leader no matter what position they are in and for how long they have worked at Company X. The investi-

gation and the interviews only concern Department Y, and hence the top managers at Company X are not included.

“I have great trust in my first-hand leader. Then I can tell you that it decrease the higher level you reach. That you not always understand the decisions that are made at higher level, but you don’t always have all the information.”

Staff Manager, Beatrice

When it comes to higher-level leaders, the interviewed employees do not feel they have the same extent of trust, because the contact is not that frequent. During the interview with Beatrice, she suggests how to increase the contact with higher-level leaders, and hence the trust. She explains that the European CEO runs a blog where employees can access whenever they want. The CEO is active and updates the blog frequently. The employees can ask questions, and according to Beatrice the CEO answers quickly. Beatrice thinks this is a good use of the new technique, and that other leaders should follow this example.

All of the employees claim they have great trust for their co-workers. None of the interviewed employees implies that they do not trust their co-workers. They feel that trust is necessary to have for a healthy working environment. Ian, who is a system developer who has worked at Department Y for half a year, agrees that trust is necessary for the working environment. However, due to the short experience at Department Y, he cannot express extensive trust to his co-workers, because it takes time to get to know new people and build up relationships and trust. While the staff manager Arne, who has worked at Department Y for ten years, has a hundred percent trust for his co-workers. He continues by saying that they have high work competence, social competence, and are incredibly responsible. He also sees them as very loyal. For example, if necessary, they would work late nights and weekends without complaining. They have such a high feeling of responsibility that they would do this without payments for overtime.

All interviewed employees agree that high trust helps to create a better knowledge transfer, and that trust plays a vital role when working together. There is a give and take relationship when it comes to trust.

“Less trust makes you more skeptical.”

System Developer, Henrik

The interviewed employees responded with confidence that high trust is vital at work. They find it unreasonable to work in an environment without trust. However, they do not take it for granted. Arne says that trust eases the road for competence, and David compares it to a lecturer at a seminar. When you teach, you should start with your experience within the context you teach. After this, everything what you say seems more reliable. Consequently, the audience will have it easier to create trust in a short amount of time.

When it comes to fear of transferring too much knowledge, the fear that a co-worker will take credit for something that you shared with this person, the interviewed employees disagreed. There is hardly any fear, rather a feeling of safety within the department when sharing ideas. Henrik states that it can happen theoretically, especially when the trust is low for someone. However, at Department Y he does not experience this. Filippa states that you should not be afraid of transferring knowledge, because telling one person denotes that there are two persons holding the information with the capability of further transfer. Eric agrees with Filippa by saying that it is nice to have received that much knowledge that you are able to spread it. It makes you feel that you can give something back, and that is the feedback that you finally have learned things and that you can help someone else. The staff manager Arne has another opinion. He believes there is a fear, but thinks it is decreasing now.

Furthermore, if the employees find a solution to a problem, the reactions are to transfer the knowledge to everyone who is concerned or affected by the solution.

“I always share. Partly for my own sake to see that I am on the right track, and partly for others, it is always good to be more than one. To have someone to discuss with.”

Business Developer, Gabriella

All interviewed employees claim they never keep the solution to themselves. They also indicate that the open landscape profile enables this. Eric continues by saying that not providing solutions makes you keep the information to yourself. This gives you key competence. He does not believe in having key competence, because it is difficult to be a person who has knowledge about everything in the long-run.

Transferring knowledge between groups is common within Department Y. They work in three main teams, also in cross-functional teams, with different competences in each in order to cover all parts within the department. Meetings and forums are the most frequent used methods when transferring knowledge.

“When you do a larger development you become a team; often a cross-functional team where competences from the different main teams are used.”

Software Architect, John

David states that the actual knowledge often transfers at meetings, and that information is provided through e-mails. The interviewed employees state that working in teams is something that is highly promoted at Department Y. Furthermore, it is investigated if Department Y has an experimental culture; meaning activities such as kick-offs, after works, and wine tasting.

“It is very important that you work in groups and get to know each other outside the work place in order to create team-bonding. It is immensely vital.”

Business Developer, Eric

John, the software architect, express that it is important to spend time with co-workers privately, but he would not do it just to reinforce the cohesiveness at work. He only spend time with the once he connects with. Staff manager Beatrice claims it reinforces the cohesiveness. You get to know people on a different level, and not only the pure formal work relations.

All the interviewed employees agreed that Department Y does not create any activities with the aim of strengthen the cohesiveness among the employees. Nevertheless, the employees socialize outside the office, but most of the times on own initiative. Karen says that it is most of the time on private initiatives, never the leaders’ initiative to gather people outside work to do something fun. However, it is a mutual understanding that Company X cannot afford activities that are not directly work related due to the bad financial situation of today, yet they all agree that it would increase the collaboration at work. Beatrice says that she would like to be able to take more initiatives, but the financial situation prevents this.

5.4 Collaboration leads to higher propensity to transfer knowledge

A hierarchy does exist within Department Y. The way the employees transfer the knowledge is downward, upward, and sideways. There are different preferable ways. David tries to be inspiring when he transfers knowledge. He states that it is more about rhetorical concepts and not to push out 20 new things, instead choose the three most important things. Filippa prefer to tell, show, suggest, and listen when someone has a question. When she realizes that someone needs help she interrupt her tasks and tries to help and transfer her knowledge.

The department has a shared belief when transferring knowledge upward. They are more formal, political correct, and only address the most important issues. It is mainly by e-mail or face-to-face dialogue. Karen says, when I transfer knowledge upward, I most often just send an e-mail. David expresses that it is important to be brief and concise. The information system works in the way that the higher you reach in the hierarchy, the more information comes through. You can write a report of 30 pages, yet only the summary will be read. John has another opinion on transferring knowledge upwards:

“They never know what I’m doing anyways, so it doesn’t matter.”

Software Architect, John

In terms of transferring the knowledge sideways there was almost no difference in the way of transferring downwards, it is by oral discussions or meetings, according to the employ-

ees. Most interviewed employees felt that sideways and downwards is the same thing. According to the business developer, Filippa, they do not have that much upwards and downwards; they are a team where in principal everybody is equal. Another business developer, Gabriella, often use a meeting with discussions, depending on how complex it is.

There are also examples of own responsibility when it comes to transferring knowledge sideways.

“When it comes to the co-workers sideways, you have less power to tell them what to do. It is their responsibility.”

Product Manager, David

When Cecilia tried to transfer knowledge downwards once, it went terribly wrong. She was about to take a break from Company X. Company X hired a male to replace her, and walk aside her the last six months before she quit. The newly employed wanted to look and experiment by himself, and not observe and listen to what Cecilia did. It turned out that people did not trust him, because his way of doing things was not accepted at Department Y.

In general, most of the interviewed employees preferred an evaluation system in terms of knowledge transfer. Today Department Y has performance reviews once a year with each employee. The interviewed employees would like to see more evaluation systems. They believed that this was good for both personal development and organizational development. When it comes to evaluating the knowledge that has been transferred, the interviewees answered this happens rarely or never. A reason for this is lack of time, according to the interviewees. Eric reinforces this by saying that they do not have much time. There is always something emergent, which needs to be prioritized. Henrik states that there is a lack of evaluation; this is one major disadvantage.

5.5 Reward systems promote knowledge transfer

At Department Y, there are no known reward systems, but most interviewed employees would like to have some kind of reward system. Gabriella says that a reward system is a result of what is done, and a grade of what is accomplished. She would appreciate some response.

“People always get triggered by a reward; that is a simple truth. But it is sad, because you do actually have a salary. But without rewards, they might not walk the extra mile.”

Staff Manager, Beatrice

Overall, the economy of today has had a big impact on the rewards at Department Y. There is a mutual understanding on this matter; however, the interviewed employees would appreciate oral rewards because it is free. The level of increased ambitiousness with rewards is varying among the interviewed employees.

In the answers of the question about the feeling if others appreciate one's work, there are different opinions among interviewed employees. All interviewed employees agree that they would appreciate a pat on the shoulder and that it will affect the work effort. Beatrice states that it is easier to be negative and criticize than to be positive. Gabriella do not think that Department Y is good at appreciate the employees' effort. It used to be better, now it is too stressful or taken for granted, according to Gabriella.

"You know that people have fought enormously, some have worked on week-ends just because they feel responsible for their job. And then you are about to say thank you for a very nice job. - Then oh, nice job, then I'll get a raise! - No sorry, there is none, it is only 0% this year. I think this is unfortunate and I notice it very clear. Reward systems are incredibly motivating."

Staff Manager, Arne

The interviewed employees appreciate cheerful words concerning their work that they believe make them more motivated. Furthermore, the interviewed managers mainly consider money rewards and do not realize the impact of non-financial rewards. Arne also says that he does not think it has that great impact as it has. He thinks, that only by meeting someone in the hallway and tell them what they did yesterday was good could be enough many times. He says that he probably underestimates it many times, and that it is taken for granted.

5.6 Employees' most preferable way to receive knowledge is from a co-worker

In order to see if there is any difference in preference of tacit and explicit knowledge, the interviewees answer how they prefer to receive knowledge. Karen prefers to receive knowledge when she is searching for it because then she is interested and the knowledge tend to stick. Filippa believes that reading a manual is a cheap way, but also very boring. David says he is indifferent between tacit and explicit knowledge.

"It is most inspiring to listen to someone who has a lot of experience, that is the easiest way. However, written documents are good in the manner of availability, they are always there in the exact moment you need them."

Product Manager, David

In general, the interviewed employees prefer to have someone telling them how to do things, and then practice it themselves. They appreciate a kind of mentorship, to have someone walk aside you. This leads to the question how the employees received knowledge at Department Y the first time.

"So he loaded my desk with approximately ten folders, 'here, you can have a look in these'. This is almost still how we do it today."

Staff Manager, Arne

“A lot of questions to my co-workers or instructions from co-workers, and referring to existing documentations. Also a lot of self-searching you can say.”

Business Developer, Filippa

Software architect, John, said that he learned through both learning by doing and learning from others. It was a rather unofficial way of learning. John also states that when you start as a newly graduate, you have theoretical background, but no practical experience. When the interviewed employees at Department Y first started working there, the most part received knowledge mainly through documents.

5.7 Tacit knowledge is preferred over explicit knowledge

Recall, that tacit knowledge differs from explicit knowledge. Explicit knowledge is in the form of data, specifications, manuals, or scientific formulae and tacit knowledge is rooted in routines, values, ideals, procedures, actions, commitment, and emotions.

Department Y works in different systems, such as intranets, where the employees can make changes as they come along. The system developer, Henrik, explains, when changes are made, it is documented in a system so that the co-workers can make use of them. It is investigated if there are any routines within Department Y when transferring knowledge. Eric indicates that he document a lot, partly for himself and partly for his co-workers. Ian also documents tasks in order to provide the information to his co-workers.

“There is no formal program for knowledge transfer. We help each other and that is how you learn and deliver your knowledge.”

Software Architect, John

When it comes to routines of transferring knowledge, there are no clear patterns in Department Y, according to interviewed employees. The employees say they transfer the knowledge in the way that suits them the best. They have not received any guidelines from Company X telling them how to do it.

6 Analysis

This chapter presents the analysis of the empirical findings. The analysis is based on how Department Y performs its knowledge transfer and compares with the main theory. The propositions are integrated into three different sections and then analyzed. The method chapter included variables such as gender, work-experience, and position of the employees to see if these variables influence the answers. However, the findings indicate that these variables do not influence and therefore, conclusions cannot be drawn concerning this. Additionally, because the length of employment does not affect work-experience, no respondent is excluded.

6.1 The Collaborative Culture's Effect on Knowledge Transfer

This section regards with the first and second proposition: *organizational culture relates to knowledge transfer and collaboration leads to higher propensity to transfer knowledge*. It is analyzed how the knowledge transfer is affected by culture and collaboration.

Generally, companies have different cultures, with different values, norms, and the way of performing tasks. The mixture of different company backgrounds due to mergers at Department Y can be a barrier when it comes to understanding its culture. Each employee seems to have more understanding of the culture from their previous jobs, and that previous culture still stick with them in Company X's environment. Without an established culture the impact of knowledge transfer is negative (Alavi et al., 2006).

The culture at Department Y is analyzed to investigate how it relates to knowledge transfer. Among the employees, there is no outspoken understanding of Department Y's culture, and some interviewed employees do not know what the expression 'organizational culture' is. Major parts of the interviewees have answered different on what the Department Y organizational culture is. However, the interviews show that all employees emphasize the importance of its open landscape profile, collaboration, trust, and the problem-solving approach that exist within Department Y. This is recurring throughout the empirical findings, and hence the authors interpret this as its organizational culture. The culture is not outspoken, so the employees find it hard to define it. However, the findings show that they have an organizational culture that promotes collaboration, problem-solving, and trust.

The theory argues for the importance to have an established organizational culture. O'Dell and Grayson (1999) suggest that people and culture are the underlying principle of knowledge transfer. If a culture is fully understood, effective knowledge transfers is easier to achieve. The shared culture enhances the knowledge transfer between different departments, due to the shared norms and values (Smith, 2000). The proposition *organizational culture relates to knowledge transfer* is evaluated through three variables. The three variables are 1) collaboration, 2) problem-solving, and 3) trust because they are the three main components of Department Y's culture. The three variables are analyzed separately, and to be able to support the proposition all three variables need to relate to knowledge transfer. The vari-

ables collaboration and problem-solving are analyzed in this section, while trust is analyzed in the following section, 6.2.

Company X promotes a collaborative approach with an open landscape profile that enables direct communication between the employees. The open landscape profile emphasizes on people with different knowledge, skills, and experiences to interact and transfer knowledge without being aware of it. This makes the organization more flat and less hierarchical, and this enables the knowledge to spread throughout the department (Nonaka, 1994). Because there are no visual obstacles such as walls or separate offices, the open landscape profile invites to horizontal communication and more knowledge to be shared. Hence, horizontal communication leads to increased knowledge transfer within a team. This indicates that the first variable, collaboration, in organizational culture support the proposition *organizational culture relates to knowledge transfer*.

Besides the importance of having an established culture, it is important to have a clear and mutual understanding of the concept knowledge transfer. All the interviewed employees have slightly different use of words to define it but overall the same understanding. This enables them to receive further information on how to transfer knowledge effectively.

Employees with expertise, key employees, see themselves as invaluable resources to a company. Therefore, they are not that willing to transfer the knowledge and are obstacles to knowledge transfer as O'Dell and Grayson (1999) express it. Key employees exist within Department Y, but are not that common anymore. Department Y has managed to reorganize key employees by highlighting the importance of collaboration, for example working in teams. Then the key employees become a team member. Removing by reorganizing the key employees is one way of reducing potential rivalry between the employees; individual knowledge is no longer more important than team knowledge. This is important for knowledge transfer to take place, according to Probst et al. (2000).

Collaborations or working in teams, as mentioned above, is a frequently used method within Department Y. The three established teams within Department Y can be reorganized in order to meet the demands of specific projects. It is the type of project that determines how the team is divided. Since previous projects have been managed, one can assume that Department Y connect members that are most likely to transfer knowledge with each other. O'Dell and Grayson (1999) also support this. When reorganizing the three main teams, Department Y use cross-functional teams where competences from the different main teams are exploited. Cross-functional teams are beneficial because they stress the horizontal communication which is time saving, according to Goh (2002). Because the structure is flat it is easier and quicker to communicate with each other. The knowledge that is transferred in each team should be taken care of for future projects in order to maintain its value. As it is right now, no established routines for evaluating knowledge transfer exists. This makes it hard for Department Y to know how knowledge transfers the best for a specific outcome.

There are different ways to communicate when addressing the other organizational members. When addressing upwards, it regards information sharing where questions are raised rather than knowledge transferring. This is to give the manager an overlook of the situation. For example, a team member informs the department manager about the progress of an ongoing project and asks questions about how to proceed. Overloading the manager with knowledge is not good because they should focus on the overall picture of the company and not on the small details. The findings show that the interviewed employees understand this by always being brief and concise when they address their managers.

Transferring knowledge sideways is similar to transferring downward. One example of where these transfers occur at Department Y, is at meetings. Meetings are good because knowledge is transferred and reaches more than one employee at the same time. For example, instead of two co-workers having a discussion alone, the discussion between the two can be brought up at the meeting and others can take advantage of that knowledge. According to the interviewed employees, the meetings within the teams at Department Y, everyone, except the one who manages the meeting, is equal despite position and experience. Because all are equal, sideways knowledge transfer occurs. The employees have reduced the hierarchies within the teams by identifying themselves as being on the same level as their co-workers to enhance the knowledge transfer. Because the employees see themselves as equally positioned within the teams, they expect that each co-worker take their own responsibility and they have less power of telling them what to do.

According to Goh (2002), collaboration enhances the problem-seeking and -solving process. This also holds true for Department Y, where problem-solving is a common approach. The department is very positive towards problem-solving. Due to the problem-solving approach at Department Y, one can assume that knowledge transfer occurs when interacting of how to solve a problem. According to Parent et al. (2007), the knowledge transfer should be improved because Department Y is working in teams with a high level of cooperation. This indicates that the second variable, problem-solving, in the proposition *organizational culture relates to knowledge transfer* is supported. The problem-solving and collaborative attitude is also described at the corporate level in the successful innovation pyramid, *figure 4-1*. This pyramid explains how Company X, as a corporation, should work in terms of innovations. The creative piece is identified as the source for problem-seeking and problem-solving, and the organization piece as the source for collaboration. By removing potential barriers for knowledge transfers, having a problem-solving approach, and by communicating horizontally within the teams, indicate that *collaboration leads to higher propensity to transfer knowledge* at Department Y. In other words, the second proposition is supported.

6.2 Relations in Respect of Knowledge Transfer

This section deals with the third, second, and first proposition: *trust and experimental culture are positively correlated with collaboration, collaboration leads to higher propensity to transfer knowledge,*

and *organizational culture relates to knowledge transfer*. It is analyzed how the knowledge transfer is affected by trust and cohesiveness.

The findings show that the interviewees have great trust for their first-hand leader. However, to the higher-level leaders, the trust does not reach to the same level. This is because the employees do not have the time or opportunity to build relationships with them. Therefore, the level of trust decreases for higher-level leaders. In larger organizations, it is hard for the higher-level leaders to stay in contact with all employees in lower positions. At the interviews, one employee brings up an alternative solution of staying in contact with higher-level leaders, to run a blog. An example: the European CEO has a blog with continuously updates. It is also possible to ask questions and receive answers within a short amount of time. If leaders in higher positions would use this method frequently, it enables the employees at Company X who actively visit the blog to follow the experienced leaders. This could help the employees to receive a better understanding for decisions and easier get in contact with leaders in higher positions than themselves. If the employees have more insight to what is going on at a higher level, the involvements increase as well as trust.

Trust plays a vital role when working together. The findings in this thesis show that the employees at Department Y have great trust for their co-workers; they depend on each other. If employees trust each other, they are more willing to transfer their knowledge. Sometimes people who do not trust each other still have to work together; this tends to decrease the knowledge transfer. This is the reality because people are reluctant to transfer knowledge if they do not trust that the receiver can take care of the knowledge provided. Mayer et al. (1995) also state this. Trust is necessary for a healthy working environment. If trust displays in the organizational culture, the employee is more willing to transfer knowledge. This is in line with what is found from the interviews and is supported by Bollinger and Smith (2001). This implies that the third variable, trust, also support the proposition *organizational culture relates to knowledge transfer*. Because all three variables now are proved supportive, the proposition *organizational culture relates to knowledge transfer* holds true.

Trust also plays a major role when it comes to how much employees are willing to transfer considering the fear of transferring too much information. Within Department Y, the interviewed employees claim that they never keep a solution to a problem to themselves. Some of the interviewed employees agree that it can happen in theory, but not at this department. However, one of the staff managers at Department Y believes the opposite; fear exists but it is decreasing. This relates to the trust level within Department Y. Because the level of trust is very high, they rely on their co-workers to take care of the information received and not take credit for someone else's work. The interviewees claim that they always transfer the experience to at least one person and try to spread it to all employees who can make use of it. However, during the interviews it was also found that Department Y works in three different teams. The teams contain employees with different skills and positions, which is good in order to learn from each other. These groups sit together in the open landscape. From the interviews, it was also found that Department Y has a rather stressful

working environment; they barely had time to answer a few questions. Putting these two observations together, the conclusion is that the employees most likely only share experiences with people in their surroundings on daily basis due to lack of time. In this manner, the daily flow of information will not reach out to all employees who can take advantage of it.

The work tasks at Department Y involve interdependence; the co-workers depend on each other where trust is a vital element in order to fulfill the organizational and personal goals. If trust exists among the employees at a department, they are more likely to turn to each other to transfer knowledge; sometimes even without noticing it. This implies that they collaborate more, because they turn to each other. If a person does not trust the receiver to handle the knowledge, the knowledge transfer will most likely not occur. One interviewee replied that he is in the process of getting to know his co-workers, and is not yet able to answer the question to what extent do you trust your co-workers because a relationship is not yet established. This indicates how important it is to have relations with the co-workers. To get to know them in order to create a relationship with trust and consequently a better collaboration can be the result. Based on the analysis in this paragraph the third proposition *trust and experimental culture are positively correlated with collaboration* holds true in the respect of trust. To be able to support or decline the entire proposition, the experimental culture is discussed.

To get to know each other better at the department, to build strong relations with trust, as a key element, is something that is vital for organizations that strive for a greater knowledge exchange, Mayer et al. (1995) agree. Activities outside work and team bonding activities are influencing the trust and understanding for the co-workers. In the interviews comments such as 'reinforces the cohesiveness' and 'immensely vital' are common findings about activities outside the workplace. Nevertheless, the employees do not spend time with all the co-workers privately. The private initiatives to spend time together privately in order to create another relation than the pure formal one, improves the relations at work. However, the private initiatives often involve the employees who already trust and like each other. The findings show that they would not spend time with people they do not feel trust for in order to reinforce the cohesiveness, but they all agree that activities that are not work-related will increase collaboration at work.

Department Y cannot afford costly team bonding activities, because of that the employees are negatively affected. While trust has influences on knowledge transfer, this is also negatively affected. The employees are not willing to take the private initiative to improve the collaboration at work. If they take private initiatives, it is for their own pleasure, not to improve collaboration at work. This is something that Department Y needs to realize and carry out. Such activities does not necessary have to be costly. It is possible to arrange an activity and charge the employees who participate. Furthermore, Department Y can evaluate in order to see what interest it brings. An example is to arrange a bowling night with arranged teams, make it a contest and charge each person for the cost of the activity. After

discussing Department Y's experimental culture, it is concluded that the entire third proposition *trust and experimental culture are positively correlated with collaboration* holds true.

Overall Department Y shows that both private and working relationships between the employees are of good quality. The way that the employees trust each other and know each other increases the knowledge transfer. Both trust and cohesiveness among the employees increase the collaboration, and as mentioned in the previous subchapter, *collaboration leads to higher propensity to transfer knowledge* and ultimately, together with the other elements, leads to effective knowledge transfer.

6.3 Preferable Ways of Transferring Knowledge

This section deals with the fifth, sixth and fourth proposition: *employees' most preferable way to receive knowledge is from a co-worker*, *tacit knowledge is preferred over explicit knowledge*, and *reward systems promote knowledge transfer*. How different types of knowledge and routines affect the knowledge transfer is analyzed.

The interviewed employees have different preferences when it comes to autonomy. It differs whether they prefer to receive knowledge by computers, codified language, and read from books, or have someone teaching them by showing each step in a practical way. Within Department Y, all the interviewed employees have a moderately common preference. The fifth proposition that *employees' most preferable way to receive knowledge is from a co-worker* holds strong. They agree that they can receive new knowledge by being in a meeting with other employees with more skills and experiences. Dialogues and discussion are examples of popular methods of receiving knowledge at Department Y.

Learning by doing is an appreciated approach, because you can ask the co-worker and then carry out the task immediately and have an opportunity to learn. However, documentations are always available as a source of knowledge; it is a quick reference guide to look at when forgetting how to perform a certain task. Therefore, documentation is another preferable way to receive knowledge. Documentations mainly work as a back up when co-workers are not available. Furthermore, the employees agree that you cannot ask your co-worker every little detail, and this is when the documentation is appreciated. The preferable approach, learning from a co-worker, is not always an available method of receiving knowledge. At Department Y there are not enough resources to transfer knowledge using the most preferable way. This mainly concern newly employed, because this is the stage where a huge amount of knowledge transfers. Using the preferable way of having someone else teaching and walking aside a newly employed requires many resources. The person teaching devotes time to the newly employed and cannot fully carry out the original tasks. Hence, the great amounts of resources are required, the company wants to use as little as possible and not lose competent employees by having them walk aside another person. Most of the employees said that lack of time was a negative influence in terms of transferring knowledge. The time restraint is something that Goh (2002) agrees with.

The preferable way of receiving knowledge is from a co-worker, as discussed above. However, do they prefer tacit or explicit knowledge? Company X deals with software which reveals its information in codified language, also called explicit knowledge. It uses intranets as a forum of posting explicit knowledge. It has a system where the employees insert fault reports from its customers. Furthermore, there is another system where all activities carried out for a specific assignment are documented. All the employees have access to this information on the intranet. The sixth proposition that *tacit knowledge is preferred over explicit knowledge* is neither true nor false; it highly depends on the situation. As mentioned, the newly employed prefer to receive tacit knowledge, learning from a co-worker, even though it is more complex to transfer (Nonaka & Takeuchi, 1995). However, a person who is newly graduated has knowledge that is more theoretical and lacks of practical knowledge. This person is in need of tacit knowledge, learning from a co-worker, while being able to transfer the explicit knowledge to co-workers. The experienced co-workers possess a great amount of tacit knowledge and most likely lacks in explicit knowledge comparing with the newly graduated.

Tacit and explicit knowledge are preferable in different ways. The interviewed employees at Department Y have the understanding of when to use what type of knowledge, perhaps unconsciously. An issue could be time restraints; an employee can quickly add knowledge into the intranet while it will take longer time to have a discussion with a co-worker. Even though the knowledge can be explained better by using tacit knowledge that makes it easier for the recipient to grasp, the explicit way might be preferred due to the lack of time. To post knowledge on the intranet enables everyone to have access and can use the knowledge whenever needed, this is an advantage with explicit knowledge.

The sixth proposition, *tacit knowledge is preferred over explicit knowledge*, can alter into *employees use tacit and explicit knowledge in different manners, depending on what type is more appropriate*. Furthermore, it cannot state which routines are used. Simply the routine is that the interviewed employees use the method that suits them the best at that moment. It is probably due to the situation; is the employee aware of that the knowledge already exists in documentation? Is the employee aware of that it does not exist and therefore has to receive the knowledge from a co-worker? If there would exist any routines the result might be improved. Company X does not direct its employees by telling them what routines are appropriate or how they should transfer their knowledge. It leaves room for the employees to create their own routines and choose their preferable way. Using the proper type of knowledge in a situation enables the knowledge transfer and it becomes more effective.

Another important routine is to give rewards. Rewards improve the knowledge transfer as Batrol and Srivastava (2002) state. There should be routines to give rewards, meaning it should be done frequently but only when deserved. However, there should not be a routine in the way of giving the reward, meaning it should not be done in the same procedure every time. The findings show that approval and support of one's work is highly appreciated by the employees. However, within Department Y, this is something that can improve.

It shows that many employees enhances their motivation by only receiving a pat on the shoulder, while one leader states that he is afraid to give cheerful words to employees when no raise in salary or money-reward is possible. According to the findings, this is a misunderstanding by the leader, because many employees experience the lack of appreciation of non-financial rewards on a daily basis. Rewarding and encouraging the employees to transfer knowledge between each other makes the transfer process more efficient, according to Goh (2002) and a staff manager at Department Y. Hence, the lack of reward systems at Department Y is influencing the knowledge transfers. Department Y has chosen to reduce its reward system due to the global financial crisis. The interviewed employees at Department Y appreciates rewards for their efforts, however, the most valuable reward is when your leader compliments you by using words. The employees are not that interested in bonuses such as a certain extra amount of money. They claim that it does not increase their work effort. This is very good in the aspect that the employees are motivated and do not need the extra money in order to work harder. Therefore, the fourth proposition that *reward systems promote knowledge transfer* is not applicable because Department Y does not have a reward system and cannot be evaluated.

When the work effort increases, the knowledge transfer increases as well, because no one of the employees carries out all the tasks alone. Some of the interviewees believed that they would increase their effort in their work if they received a monetary reward. This will in turn increase knowledge transfer. However, the proposition is still not supported because rewards do not exist. The lack of resources, such as time and money, is identified as a main barrier to reach effective knowledge transfer within Department Y.

7 Conclusion

Chapter seven presents the major findings, based on the propositions, that fulfills the purpose.

Table 7-1 The Propositions

Proposition:	Supported:
1. Organizational culture relates to knowledge transfer	Yes
2. Collaboration leads to higher propensity to transfer knowledge	Yes
3. Trust and experimental culture is positively correlated with collaboration	Yes
4. Reward systems promote knowledge transfer	Not applicable
5. Employees' most preferable way to receive knowledge is from a co-worker	Yes
6. Tacit knowledge is preferred over explicit knowledge	Not applicable

The analysis indicates that four out of six propositions are supported, see table 7-1. All of these propositions increase collaboration, and hence knowledge transfers. Department Y has successfully managed to collaborate which is a major variable on how to reach effective knowledge transfer.

Figure 7-1, displays the current situation at the department. At present, Department Y cannot fully reach effective knowledge transfer unless the support structure is incorporated. At present, the support structure at Department Y only involves a flat organization, and lacks of having time resources and a reward systems. Therefore, the support structure in figure 7-1 is in gray scale, meaning it is not fulfilled. By implementing time resources and reward systems, the support structure is fulfilled.

If these three elements in figure 7-2 are incorporated the propensity to transfer knowledge can be fulfilled. If figure 7-2 is fulfilled and combined with the two other elements from figure 2-2, knowledge recipient and different types of knowledge, the effective knowledge transfer is achieved.

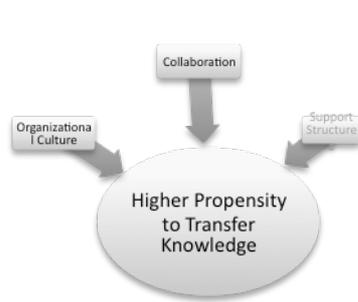


Figure 7-1 The Current Structure

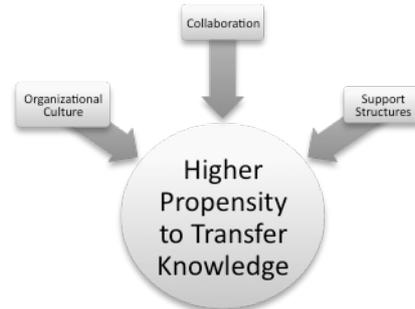


Figure 7-2 The Successful Structure

Source: Developed from the findings by the authors

The purpose of this thesis is to investigate what company-specific variables are influencing effective knowledge transfer, and it is fulfilled. The variables identified by theory, and embedded in the propositions, are:

- Organizational Culture
 - Trust
 - Experimental Culture
 - Collaboration
 - Leadership
 - Problem-Seeking and -Solving
- Support Structure
 - Organizational Design
 - Reward System
 - Time
- Knowledge Recipient
- Types of Knowledge

These variables are investigated through propositions. All six propositions hold true, they are influencing variables, according to theory. However, due to absence of company-specific variables influencing effective knowledge transfer, only four propositions could be supported. Even though two propositions are not applicable, the findings have still shown that the underlying variables of the propositions are vital and that they influence effective knowledge transfer.

8 Further Research

Chapter eight gives suggestion on further research.

For future research, a quantitative research could be conducted. This is to find out what variables have greater impact than others do. Knowing this makes it easier to exclude some variables and focus more on others. From a quantitative study, differences between the employees in terms of sex, work-experience, and positions could be obtained. Additionally, there is an opportunity to reach out to a larger group of people that enables the researchers to draw conclusions that have more reliability.

Reward system is a variable that Department Y yet not has established. In further research, the investigation can be about what difference a monetary and non-monetary reward may have. Time is a resource that many companies lack. It can be further investigated how to increase this resource. This may enable more effort for evaluations system and learning from a co-worker when you first start your new job, which are the most preferable way, at Department Y.

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Appendices

Appendix 1 – Interview Questions for Employees at Company X

Q1: For how long have you been working at Company X?

Q2: Describe your position briefly.

Q3: Have you advanced within Company X, explain how?

Q4: If yes in Q3, have you noticed any differences in knowledge transfer, comparing from before and after the change of position?

Q5: What does knowledge transfer mean to you?

Q6: How did you receive knowledge within Company X when you first started working there?

Q7: How do you prefer to receive knowledge; through personal meeting, receiving notes from a co-worker, learning by doing?

Q8: To what extent do you trust your co-workers?

Q9: To what extent do you believe that trust can help create better knowledge transfer?

Q10: Do you possess any fear from transfer too much knowledge? The fear that a co-worker will take the credit for something you share with this person?

Q11: How do you transfer knowledge; Upwards? Downwards? Sideways? Other?

Q12: What routines are used when transferring knowledge?

Q13: Is the knowledge transfer process evaluated, if yes how?

Q14: How much co-operation exist in Company X?

Q15: Do you work in a group, what kind of group?

Q16: If yes in Q15, how is the knowledge transferred within the group?

Q17: To what extent do you trust your managers?

Q18: How close are you with your superiors? Do you believe it is easy to get in contact with all of your superiors or only the superior next in line from your position?

Q19: Do you ever discuss how you can make your job more effective? If so, what is your solution?

Q20: If you find a solution to a problem do you share your idea? To what extent? To who?

Q21: Do you have any reward-system? Does this system encourage you to make a better effort?

Q22: If you do a good job, do you feel that it is appreciated? How do you notice the appreciation? Is this making you put more effort in your job?

Q23: Do you ever meet with your co-worker during other circumstances than work? What does Company X do in order to reinforce the cohesiveness?

Q24: Describe your organization's culture?

Q25: Is there anything you would like to change in your culture, if yes what and why?

Q26: Does your culture promotes knowledge transfers?

Q27: Does your culture promote collaboration?

Q28: Do you have a problem seeking and problem solving approach in your culture? Describe how?