What influences Knowledge Sharing?

The case of Alstom France

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Abstract

In the competitive environment, organizational knowledge became one of the most valuable strategic resources for a company. Indeed, it is said to be the only resource that cannot be imitated, and thus, that provides a reliable competitive advantage. Hence, knowledge management has become a highly investigated field of study. In fact, knowledge sharing, one of the facets of knowledge management is considered as a helpful leverage within a company’s strategy. Knowledge sharing has been studied widely, it is found to be a powerful process to ensure that the developed knowledge within the company is kept in the company and made usable. Even though knowledge sharing has been investigated by researchers, when looking at the practices within organizations, it appears that those are not as efficient as they could be, due to organizational, technical, as well as individual hindrances that affect the establishment of such processes.

This thesis aims to increase the understanding of which factors influence individuals’ sharing behavior and which role a knowledge sharing policy takes. Therefore, interviews have been conducted with the employees within the communications department of the Alstom group. Alstom France is multinational company, which is providing transportation and energy producing solutions; this implies that the communication is a support function and needs to work efficient, which makes the matter of knowledge sharing even more important.

It was found that the strategic importance of knowledge sharing is highly acknowledged within Alstom, since the company has introduced a knowledge transfer department, which has released the “Alstom Knowledge Management Transfer Handbook”, the company’s internal knowledge sharing policy. It provides a guideline for the managers within the departments. The perceived motivations and hindrances to share knowledge are mainly about the manager’s role, language and the team culture.

Key words: knowledge, knowledge sharing, knowledge transfer, knowledge sharing policy, individual factors, barriers.
Acknowledgements

It would not have been possible to write this paper without the support of a number of people, whom we would like to take this chance to express our gratitude.
To all friends and family: we would like to thank you for your support and the constant reminders to ‘keep our heads up’ and to keep pushing us forward.
To our interview subjects: we really would like to thank the people within the Alstom communications department in France for providing us with the Knowledge Transfer Handbook, as well as being supportive by taking time to share your views and ideas.
To our supervisor, Malin Näsholm: thank you for your patience and honest criticism throughout this research. We really appreciate your honest feedback, which guided us to define a research area and your encouragement helped us keep confident in our work throughout the writing process.

Merci beaucoup!
Vielen Dank!

Manon Grünfelder                        Angelika Hartner
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1 **INTRODUCTION**

*In this first chapter, the authors would like to introduce the reader to the investigated topic. In order to do so, they will review the origin of the problem that leads to the research gap and thus, to the research question.*

1.1 **Background**

Tiwana (2000) states that “Knowledge drives strategy and strategy drives knowledge management”. This quotation emphasizes how knowledge and performance are connected and depend on each other. In order to cope with the competitiveness that companies have to face, they have to be innovative and thereby, it is necessary to make resources efficient. (Johnson et al., 2011, p.84) To establish a competitive advantage that lasts, their resources need to be valuable, rare, inimitable and non-substitutable (Johnson et al., 2011, p.91). Resources can be either tangible or intangible. Managing tangible resources relates to the coordination of machines, the efficient usage of computers, patterns and the correct allocation of people; handling intangible assets means dealing with brand, reputation and most importantly, the knowledge developed within the organization. (Johnson et al., 2008, p. 95) Hislop (2009, p.72) states that the number of knowledge workers (such as accounting services, legal services, IT & management consulting etc.) has enlarged, which means that the knowledge intensity of work has increased and is becoming an important source of competitive advantage. Indeed, it appears that intangible assets, especially employees’ skills and knowledge, are more likely to create competitive advantage because of their hardly imitable nature. (Black and Boal, 1994, p. 134) Davenport and Prusak (1998, p.5) have defined knowledge as “a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms.” In his article, Massingham (2010, p.541) raises questions about what happens with the knowledge when an employee leaves the company. Starke et al. state a company would struggle to cope with the departure of an important employee with special skills and knowledge. (Starke et al., 2003, p.209) Research has also identified several negative effects due to knowledge loss like a decrease in the output of an organization (Droege & Hoobler, 2003, p.57) or a decrease in productivity as stated by Osterman (1987, cited in Massingham, 2010, p.542)

Du Plessis (2007, p.27) pointed out to what extent knowledge sharing between different teams and transfer from one project to another could enhance creativity and thus, allow the organization to develop its competitive advantage further (Adams & Lamont, 2003 cited in du Plessis, 2007, p.20). In order to do so, companies have to turn tacit knowledge into explicit, by using knowledge management systems. Those systems aim at facilitating the capture, storage and distribution of the knowledge generated by the employees, but also to make it accessible for others throughout the organization. (Turban et al., 2002, cited in Lin & Tseng, 2005, p. 209) However, to use these systems efficiently, companies need to introduce knowledge sharing policies in order to set rules and processes for the employees to contribute to the construction of corporate knowledge. A knowledge sharing policy should support the employee to share his/her knowledge on the one hand; on the other hand, it provides a guideline to keep a certain standard on how to externalize knowledge from tacit to explicit. Indeed, establishing policy, tools and processes in order to make the knowledge usable would help managers to develop and transfer the knowledge from one project to another. (Kotnour,
1999, cited in Landaeta, 2008, p.29) Lodhi and Ahmad (2010) argued that knowledge sharing policies were crucial to ensure a satisfying performance for the company. Nonetheless, the efficiency of those policies relies on the individuals, the employees. Nevertheless, little research has been conducted to investigate what hinders or motivates the willingness of employees to take part in the construction of knowledge.

1.2 Research question

This leads to following research question: What influences employees to follow or not a provided knowledge sharing policy?

1.3 Research purpose

As explained by Lodhi and Ahmad (2010), establishing a knowledge sharing policy is essential for a company to succeed. Riege (2005) developed a theory stating that there are organizational, technical and individual barriers for employees to contribute to the overall knowledge of a company. However, the authors of this thesis identified that there were no articles investigating the impact or influence of knowledge sharing policy over individual factors to contribute to corporate knowledge.

The aim of this research therefore is to increase the understanding of how employees perceive knowledge sharing and how a knowledge sharing policy and individual factors influence the willingness to contribute to overall knowledge. This will be done by a case study. To achieve the research purpose of this study, three sub purposes will be addressed:

- The first one aims at increasing the understanding of how employees perceive knowledge sharing as strategically important.
- The second one aims at increasing the understanding of how employees perceive knowledge sharing policy.
- The third one aims at identifying motivators and barriers among the investigated employees.

1.4 Delimitations

As mentioned above, the purpose of this thesis is to investigate knowledge sharing from the employees’ perspective. Consequently, the authors decided to focus on the individual level of barriers and not on the organizational level. Moreover, the emphasis will be on the individual’s internal factors that hinder or motivate employees to share.

Another limitation of this research is the size of the case study. The researchers decided to focus on one team alone instead of a whole company. Although this permits the identification of dynamics within a small group, the outcome of the research is undoubtedly narrowed. Furthermore, research has only been conducted in France. Therefore, differences in culture or legislation are not taken into consideration in this piece of work.

Finally, concerning the collection of the qualitative data, it must be mentioned that some of the interviews were conducted via e-mail, since not all employees of the investigated team were available via phone.
1.5 Definitions

Before outlining the methodology and the literature review, it might be necessary to provide some definitions, in order to understand how the terminologies are used.

Some of the explained concepts will be discussed and explained further in the literature review.

Knowledge
Before starting to describe what knowledge management is, it is relevant to provide a definition of knowledge: “In organizations, it (knowledge) often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms.” (Davenport & Prusak, 1998, p. 5) However, depending on the context, knowledge has different meanings (Awad & Ghaziri, 2004, p.37). Therefore, the following definition complements the former, namely, knowledge is the “human understanding of a specialized field of interest that has been acquired through study and experience”. For this research, it implies that the authors will consider knowledge as being the combination of tacit and explicit knowledge. In fact, tacit knowledge consists of skills, experience and competences whereas explicit knowledge consists of documents, routines and processes.

Knowledge Management (KM)
Knowledge management (KM) is a multidisciplinary approach of a number of traditional academic disciplines, such as economics, management sciences, library and information sciences (Desouza & Paquette, 2011, p. 20-23), as well as psychology (Awad & Ghaziri, 2004, p. 37). This is supported by a definition provided by Hislop (2009, p.59), who describes knowledge management as “an umbrella term which refers to any deliberate efforts to manage the knowledge of an organization’s workforce, which can be achieved via a wide range of methods including directly, through the use of particular types of ICT, or more indirectly through the management of social processes, the structuring of organizations in particular ways or via the use of particular culture and people management practices.” In this thesis, this embraces the way companies organize, keep and process the knowledge, which is developed within the organization.

Knowledge Transfer (KT)
“Knowledge transfer is about identifying (accessible) knowledge that already exists, acquiring it and subsequently applying this knowledge to develop new ideas or enhance the existing ideas to make a process/action faster, better or safer than they would have otherwise been. So, basically knowledge transfer is not only about exploiting accessible resources, i.e. knowledge, but also about how to acquire and absorb it well to make things more efficient and effective.” (Liyanage et al., 2009, p.122) Therefore, knowledge transfer is described as a dynamic two-way process. It is conceptualized and studied as the replication of a source’s knowledge and experience by a receiver. (Chen et al., 2012, p.110) For this thesis, knowledge transfer includes the total movement of knowledge from sharer to the receiver with feedback from the latter to the former. In other words, it embraces the knowledge sharing process to which the backward movement is added from the receiver to the sharer.

Knowledge Sharing (KS)
Knowledge sharing relates to the sharing of a resource, in this case knowledge that is given by one party and received by another. Knowledge sharing therefore is defined as “the process by which individuals collectively and iteratively refine a thought, an idea or a suggestion in the
light of experience” (Chua, 2003, cited in Azudin et al., 2009, p.142). The authors of this thesis consider knowledge sharing as a process step within knowledge transfer, which describes the willingness and the act itself to share tacit and/or explicit knowledge. Thus, it only deals with the one-way movement from sharer to receiver.

1.6 Thesis outline

Chapter 1: Introduction - The introduction presents how knowledge became so crucial for companies nowadays and how theories have emerged to handle that topic. It is furthermore explained how knowledge transfer, knowledge sharing and knowledge sharing policies relate to each other.

Chapter 2: Methodology - In the methodological chapter, the authors justify why they decided on a constructivist and interpretivist approach for their thesis. Moreover, the choice of doing a case study as well as the advantages and disadvantages of doing qualitative interviews are discussed. Finally, they comment on how they will process and conduct the collection of data and the analysis.

Chapter 3: Theoretical framework – When building their theoretical framework, the authors decided to follow the structure of the three sub purposes given in the introduction. Hence, they discuss the most relevant theories concerning the strategic perspective on knowledge, the implementation of knowledge management and finally, the concepts of knowledge transfer and knowledge sharing, how they are bound to each other and the implications on individuals. Finally yet importantly, the motivators and barriers within knowledge sharing are reviewed to complete the theoretical framework.

Chapter 4: Empirical findings - In the empirical chapter, the findings of the interviews are presented. The aim of the chapter is to present the organization, the knowledge sharing policy of the group, but also the team that the authors have interviewed, as well as the answers. The authors have followed the structure of the three sub purposes for the answers that will be analyzed in the analysis chapter.

Chapter 5: Analysis - Based on the empirical data, the analysis provides an interpretation and discussion of the findings compared to the corporate point of view and to the theoretical framework. From this confrontation on each sub purpose, the authors draw out conclusions that will be gathered in the discussion chapter.

Chapter 6: Discussion and conclusion - From the analysis, the authors will gather the three conclusions to formulate the main outcome of the research. Following the conclusion, they will be able to build their own theory that will provide link between knowledge sharing policies and its influence on individuals’ motivational factors.
2 METHODOLOGY

In this chapter, the authors are going to explain both, their theoretical and their practical methodology. After explaining their choice of subject and their preconceptions, the authors are discussing their philosophical assumptions and their research strategy and approach. The method and research design shall provide the reader with the main structural framework. Furthermore, they will develop how they collected the empirical data and will process it. Finally, they discuss their choice of literature, as well as the quality criteria and ethical considerations.

2.1 Choice of subject and preconceptions

Whilst studying project management, the authors learned that knowledge and knowledge management play an important role in an organization’s strategy. However, since Knowledge Management was not the core purpose of the course, the topic has only been covered briefly. Thus, the authors of this thesis were interested in discovering how knowledge can be handled to make it an asset for the company. Indeed, the authors take for granted the fact that knowledge should be considered as the one of the major source for differentiation but also as a crucial tool to rely on to perform well on a market. The fact that the authors consider knowledge as being so vital for companies might affect the way they ask questions during the interviews and will affect the theories and articles they chose to build their theoretical framework. As identified by own experiences and the chosen literature, individuals have several implications when to share or not to share knowledge. Furthermore, the authors are interested in the effects of a policy on knowledge transfer and whether this is influencing individuals in their sharing behavior.

Literature provides an uncountable number of definitions concerning knowledge. For the purpose of this research, the authors agreed that knowledge is information, data in combination with experience, and specific skills that one develops over time in order to handle daily work.

One of the authors of this thesis (Manon Grünfelder) worked for Alstom for several months, and, when thinking afterwards about how she used to work for the company, it appears that knowledge sharing was happening every day without noticing it as such. The author was working there for seven months and she never heard about the knowledge sharing policy handbook, but still, she used to upload every completed project on the shared drive so that it would be accessible for anyone who might need it. While she was there, she did so unconsciously, she could ask for help to anyone of the team when needed and the other way around was true as well. There was a supporting team spirit so sharing knowledge, skills or help with them felt very natural. Furthermore, the author is still in a good contact with her former manager and the rest of the team so on the one hand it will be less complicated to reach them and ask for their answers. On the other hand, it might affect the way the employees would answer, in a much less formal way than if the authors did not know them. Knowing that the authors perceive knowledge as such important, and knowing that one of them felt that knowledge sharing was part of the culture in the company, the authors believe that the employees will not feel many barriers to share their knowledge. Moreover, having a knowledge sharing policy can make the difference between two companies to enhance sharing and establish a strong sharing culture.
2.2 Philosophical assumptions

2.2.1 Ontology

Ontology deals with the nature of social entities and the main purpose is to state “whether social entities can and should be considered objective entities that have a reality external to social actors, or whether they can and should be considered social constructions build up from the perceptions and actions of social actors”. (Bryman & Bell, 2011, p. 20) As the authors of this thesis, we think that social entities, such as organizations, are clearly connected to social actors. In the case of organizations, these social actors are employees. Considering that organizations assign tasks to their employees and they, in return, are rewarded for fulfilling them, there is an obvious connection between both of them.

Constructionism considers reality as a social construct, implying that its definition is not static and continuously changing. (Bryman & Bell, 2011, p.21) Indeed, since social actors influence it, the understanding of it is fluctuating from one to another. The authors of this thesis believe that the phenomenon of knowledge and knowledge sharing are highly dependent on people’s perception and definition. When asking someone how he or she would define those concepts, the authors could probably gather thousands of different insights. Hence, since the studied phenomenon does not have a clear reality, the authors are aiming at understanding how people perceive and interpret knowledge sharing. More specifically, the authors want to understand how having a knowledge sharing policy has influence upon individual factors to motive or hinder knowledge sharing behavior. Thus, the studied phenomenon cannot be considered as existing on its own, the researcher must keep in mind that such assumption suppose that he/she cannot remain neutral. (Bryman & Bell, 2011, p. 21-22) Constructivism, therefore, tries to understand the meaning individuals put on things, or on a phenomenon. This implies that a phenomenon would then be the result, the consequence of the actions of the individuals. (Saunders et al., 2009, p.111) For thesis, having such a philosophical stance implies that the major work will be on interpreting perceptions in order to increase the understanding of this phenomenon in particular.

2.2.2 Epistemology

Epistemology mainly focuses on the question whether or not the “social world can and should be studied according to the same principles, procedure, and ethos as the natural sciences” (Bryman & Bell, 2011, p. 15).

The authors of this thesis assume that employees within a company are social actors, who give an individual meaning to situations. Therefore, we want to understand how they perceive and interpret reality. By asking questions about their perceptions, the authors will interpret the collected information. In order to understand what motivates or hinders people to participate in knowledge sharing, it is necessary to understand their views on KT and what might influence them.

Researchers call this view interpretivism. This view implies that there is a difference between research among objects and humans. Humans are highly influenced and dependent on their perceptions and therefore, it is required to apply another research approach than in natural sciences. (Bryman & Bell, 2011, p. 16-18) When doing research in business and management, the interpretivist view is considered to be highly appropriate, because those cases are seen as especially complex. This means that the diverse number of different circumstances in combination with individuals coming together at one point of time makes research more
complicated. By following interpretivism, the researcher needs to study and understand the motivation, actions and intentions that social actors have and most importantly, interpret them in a meaningful way. (Saunders et al., 2012, p.137) Moreover, as stated in Creswell (2003, p.182), being interpretive implies that the authors will analyze the data through their personal understanding and social background to draw conclusions out of the perceptions of others. For this thesis, this implies that the authors cannot ignore their personal background whilst analyzing the collected data. By taking this view, the researchers’ role is essential, since they are the one asking the questions and interpreting the answers. (Saunders et al., 2012, p. 137) Therefore, it is important to consider the relationship between the investigated team and the researcher, which, in this case, is influenced by personal contact with the organization of one of the researchers.

2.3 Research strategy

The research strategy of this thesis is exploratory. As stated by Saunders et al. (2009, p.139-140), when the researcher is looking for bringing new insight on a phenomenon and is trying to study the phenomenon from a new angle, then he/she should go for exploratory research. Another perspective on exploratory research has been provided by Morse (1994), stating that it is important for the researcher to gather and read as much literature as he or she can for two main reasons. The first one is that it permits the researcher to understand the topic he or she is studying. The second reason is that by having knowledge on the topic, the researcher will be able to recognize what is new, thus, the researcher is likely not to reinvent the wheel. Thus, the topic is covered from a new perspective. (Morse, 1994, p.26-27)

2.4 Research Approach

The authors provide an appropriate theoretical framework which reveals how important knowledge management is within a company’s strategy, but also which factors have been identified by different authors to enhance or restrain knowledge transfer.

It has to be taken into consideration that many times, there is not clear distinction between an inductive and a deductive approach, but rather a tendency to one of them. „However, just as deduction entails an element of induction, the inductive process is likely to entail a modicum of deduction.” Bryman & Bell furthermore state that the qualitative research approach is usually connected with an inductive strategy, even though “not only does much qualitative research not generate theory, but also theory is often used as a background to qualitative investigations”. (Bryman & Bell, 2011, p. 13-14) This is the case for this thesis, since relevant theories are presented in a theoretical framework, which is firstly used to formulate the research question, but also to develop the interview questions, as well as it is used as a broad explanation (Creswell, 2003, p.131). Therefore, it can be assumed that the constructed theoretical framework is the position that the authors of this thesis take on the investigated topic. (Creswell, 2003, p. 131; Wolcott, 2001, p.76) So, the theoretical framework not only helps to collect information, also to interpret the results, but it also supported the authors of this thesis to make some presumptions on motivational or hindering factors for knowledge sharing as well as the knowledge sharing policy. Furthermore, as the authors of this thesis are striving to develop a theory out of their empirical findings and analysis, an inductive approach is taken. Moreover, the chosen literature helped them to build their research question and refine it all along the research work. Taylor & Bogdan suggest as well that other studies often provide the most helpful and interesting concepts that help to interpret data, however researchers have to be aware of not forcing own data into someone else’s framework. (1998, p.146)
2.5 Method

Since the authors are conducting an exploratory research, and since they want to gather information, qualitative methods are considered most appropriate.

Qualitative data refers to all non-numeric information or information that has not been quantified. It can be a product of all research strategies. From a simple categorization of the collected responses to a drawing of relationships, qualitative research allows both. (Saunders et al., 2009, p. 480) “Qualitative data are associated with such concepts and are characterised by their richness and fullness based on your opportunity to explore a subject in as real a manner as is possible.” (Robson, 2002 cited in Saunders et al., 2009, p.482) This supports the viewpoint that qualitative research leads to a more complex nature and the collected information might need to be summarized, categorized and restructured in order to be analyzed. (Saunders et al., 2009, p. 482) Furthermore, Creswell (2003, p.182) states that since qualitative research is fundamentally interpretive, the authors will have to pay attention to the individuals’ perceptions in order to be able to interpret them appropriately. There are several steps that the researchers have to undertake to conduct a qualitative research. According to Morse (1994, p.27-34), the first step relates to comprehending, which is the gathering of all the literature possible to understand the topic and recognize what is new. The next step, synthesizing, is when the researcher will gather the answers from the employees to determine and outline some patterns and behaviors. The third step is concerned with theorizing, where the researchers have to draw conclusions from the behaviors and patterns identified and develops schemes; finally, the last one is called recognizing, which imply to make a theory emerging from those schemes. In fact, the authors of this thesis are following Morse’s (1994) steps, meaning that they have constructed the theoretical framework in order to show in which areas there is still some research necessary. As a next step they will conduct interviews and analyze them according to some defined themes and categories (see 2.10), which will lead the authors to their analysis. In this part, the authors draw conclusions from comparing the literature with the responses, which will enable them to generate a theory.

2.6 Research design

Investigating a specific context is important for this thesis because this context will permit to stress out the individual interactions, and thus, to emphasize the motivators and barriers that influence them. Within business research a case study is quite popular (Bryman & Bell, 2011, p.60), whereby the authors choose to investigate a team within a single organization, which is working on different locations. The value of doing a case study for this research relies on the fact that it permits to see a concrete application of the research, to see to what extent it is connected to reality.

Following the thoughts of Bryman & Bell, the main concern of case study researchers is the quality of their theoretical reasoning (2011, p.62). This implies that the collected information is supposed to strengthen the theoretical framework. The authors aim at demonstrating connections between the literature and the ideas that could be developed out of the collected data. The authors of this thesis look for providing a theoretical framework, out of which they can conclude and ask logical questions that enable them to generate a theory, meaning the application of an inductive research approach. However, as already mentioned, the research approach of is thesis is not purely inductive, so the argument of Jack and Kholief (2007; cited in Bryman & Bell, 2011, p. 63) is logical, they state that case studies help to refine or refute existing theories rather than develop entirely new ones.
2.7 Choice of the case study

The main consideration in choosing a company is to cooperate with a knowledge intensive firm, as empirical investigation was considered most suitable. Another factor that needs to be considered when choosing the company is the factor whether it has or has not a knowledge transfer policy and has introduced it. Last, but not least, the authors need to have access to the company. Therefore, they were looking for companies that they had been in contact with before and would fulfill the former requirements. Since one of the authors had worked for seven months at Alstom and still has very good relationships with the team she was working with, it appeared to be more suitable to choose that company for the research, as well as conduct the interviews. This has permitted to reach the interviewees quickly, and it had required less formal contacting.

The authors will conduct their interviews within one particular team within the Alstom group, which will be presented in the empirical chapter. Personal information will be kept confidential. The team consists of 20 Employees, seven of which are managers and three of which are trainees. In fact, they belong to two sub communication teams, one for external communication, one for internal communication. However, as these two sub teams are considered as one team within the Alstom group, they will also be considered as one team in this research. The Investigation of one team allows the authors to examine and see the dynamics and how they relate to each other, especially because the authors investigate motivational or hindering factors for sharing their knowledge.

2.8 Collection of empirical data

The authors of this thesis have decided to conduct semi-structured interviews via phone and partly via e-mail in case of availability problems, in order to understand the respondents’ perception of knowledge sharing. Therefore a list of themes has been prepared, which was used as a guideline during the phone calls, however, the questions slightly varied from respondent to respondent.

The phone interviews have been recorded and then transcribed as suggested by Saunders et al. (2012). They state that in semi-structured interviews, the researcher has a list of themes and some key questions. The order, as well as the exact formulation of the question raises out the context and the interview flow. (2012, p. 374-375; Bryman & Bell, 2011, p. 467) When undertaking an exploratory study or when it is necessary to understand the opinion of the respondents, semi-structured interviews are the most appropriate way of collecting data. (Saunders et al., 2012, p.378) Another positive effect of phone interviews is that the participants were willing to give more in depth answers, since personal contact and the ability to ask additional questions, provided more detailed information. (Saunders et al., 2012, p.378)

Due to the lack of interaction, the email interviews had to be more structured. Indeed, as stated in Bryman & Bell (2011, p. 202) as well as in Saunders et al. (2009, p.320) in structured interviews all interviewees are given exactly the same set of questions. Thereby, the interviewers are supposed to read the questions in the same order as they are written on the interview guideline. The questions themselves are supposed to be very specific and often propose a limited range of answers. Even if structured interviews are majorly administered to gather data to analyze them in a quantitative way (Saunders et al., 2009, p.321; Bryman & Bell, 2011, p.366-367) the authors of this thesis would still use structured interviews to conduct their qualitative study. Therefore, the interviewees are asked to develop and explain
their statements, in order to provide in-depth arguments rather than quantifiable data. Thus, the authors will be able to compare the given answers in order to reveal a potential difference between managers and employees. In fact, the researchers aim at interviewing three trainees, eight employees and four managers. This might reveal how the policy is perceived throughout the team the authors will investigate in.

The interpretation of data is dependent on the theoretical assumptions the researchers outlined beforehand, as well as social perspectives, meanings and definitions. (Taylor & Bogdan, 1998, p.146) For this thesis, this means that the theoretical framework that the authors provide is seen as influencing the setting of interviews and as they did, definitions of knowledge, knowledge management etc. are highly important and influential in the processing of the interviews, since those definitions are considered to be the viewpoint of the authors.

Moreover, the authors of this thesis have been provided with the Knowledge Transfer Handbook of the Alstom group. They received this document via e-mail on May 2nd 2013 from one of the managers, who downloaded it from the company internal intranet for them. Since the employees of a company are seen as social actors, it is evident that the company perspective on knowledge transfer, which is shown in the KTH, needs to be taken into consideration when analyzing the interviews. Therefore, the relevant parts will be discussed and reviewed as well.

2.9 Choice of respondents

Since one of the authors worked in the Alstom group, she contacted her former manager in order to know if he would be interested in participating in their research. Then, her manager would make the link with the rest of the team. According to Bryman and Bell (2011, p.190-191; Saunders et al, 2012, p.290-291), this way of processing is called convenience sampling. The interview guideline has been sent to the whole team, consisting of 20 employees, on May 6th, in order to optimize the response rate and to gain more information to build the analysis on.

The authors ensured confidentiality to the interviewees when they sent the e-mail to the team. In order to do so, the respondents’ names will be codified with the letters M, E and T, according to the position held (Manager, Employee or Trainee). The main advantage of sending an e-mail with the interview guideline attached is that it was easy to reach the team to conduct the interviews because the author personally knows the employees as well as the environment of their work. As explained by Creswell (2003, p.181) it is important to have details about the individuals (the employees) as well as the place and environment they evolve in order to have an increased understanding and interpret their answers. Moreover, Morse (1994, p.27) argues that the researcher needs to create a feeling of trust with the interviewees as well as a level of intimacy. For this thesis, this concern is covered, and the relationships already exist. On the other hand, the disadvantages might be that the employees could feel forced to answer the interviews, or could feel some pressure about what they should answer. Furthermore, it is argued that knowing the interviewees well might prevent the researcher from being totally objective (Morse, 1994, p.27). The fact that one of the authors does not know the employees will permit the authors to have an external perspective on the answers.

2.10 Development of the interview guideline

By knowing the interviewees as former working colleagues, the introduction of the guideline had not been highly formal. Then, when it comes to the questions themselves, the authors
wanted to have them more formal in order to gain credibility among the interviewees, so that the employees would feel that they participate in a notable research. As stated in Saunders et al. (2012, p.389) the questions should be formulated in a neutral way in order to avoid manipulation.

Firstly, the authors thought about which areas the questions should cover and to put them in a logical order. Even though, they perceived the questions a logical, on a second glance, some of them seemed to be irrelevant for answering the research questions, so they have been removed. It was also necessary to keep the interviews as short as possible, knowing that the communications team has a very busy period at this time, since many events take place in spring. The matter of language is from utter importance in our case. Most of the employees who were interviewed are French natives, however the company language is English, this might influences their understanding of the questions. The interview guideline, as well as the phone interviews were conducted in English. Therefore, the formulation of the questions had to be clear and comprehensible. (Bryman & Bell, 2011, p. 475)

The first question aimed at introducing the interviewees to the topic, since it cannot be assumed that the employees were familiar with the terminology of knowledge sharing. Consequently, the authors were able to inform the interviewees about the field of study by giving them clear and concrete application of knowledge sharing

With the second question, the authors intended to get the viewpoint on knowledge sharing, since the interpretivist approach is aiming at getting the view of people and interpreting their view of reality. The authors felt they had to split the question into sub questions in order to facilitate answering. Moreover, asking several open-ended questions about how they perceive knowledge sharing in their environment would permit the authors to set the basis and the surroundings to analyze the barriers and motivators. Asking questions about their daily work, how they organize themselves and how they deal with knowledge sharing allowed the authors to grab their attention and make it easier for the employees to commit themselves in the interview.

One main point of this thesis is the investigation of influencing factors in knowledge sharing. This aim derived from the literature review. As we could identify from the articles of Santos et al. (2012), Riege (2005) or Sharma et al. (2012), the loss of control over knowledge and the language can be seen as barriers in knowledge sharing. Therefore, we wanted to see if the chosen respondents perceive it the same way, which corresponds again with the interpretivist view.

As stated previously, employees are considered as social actors within an organization. When adopting this view, it can be assumed that the relationship between employees and their managers influences the individuals in their sharing behavior as well. As Sage and Small (2005/2006), Galia (2008) and Wickramasinghe and Widyaratne (2012) argue, the role of managers and the relationships with colleagues have an impact on how employees perceive their own role. The group of respondents consists of managers and employees without managerial responsibility, however the question is still relevant for both, since the managers are part of the middle management, so there is someone above in the hierarchy, who influences their sharing behavior as well. When processing the data, the position held has to be considered. Moreover, since the authors focus their investigation on one team, it will be interesting to examine the dynamics within such a little group.
Sage and Small (2005/2006) argue that the organizational culture is one of the most influential factors to support knowledge sharing behavior. Therefore, we want to know if they feel supported by the company in order to see if this enhances the individuals’ motivation to share.

According to our research questions, it was evident to ask about the policy within Alstom since it was a major criterion in choosing the company. Because Alstom is a big company, the way in which the company spreads the information about the Knowledge Transfer Handbook was quite interesting for us. Moreover, Lodhi and Ahmad (2010) have shown how important it is to have a knowledge sharing policy for companies. Thus, asking about the Alstom policy was sensible in order to gain insight on how employees perceive it and how much it is promoted within the Alstom group.

The authors asked the manager they are in contact with if they could get the KTH, and when they received it, they read it in order to build the questions on. The researchers considered the knowledge Transfer Handbook from Alstom as very heavy. With more than 200 pages we perceived it as less practical than expected.

The authors have defined categories corresponding to the sub purposes that will be used to structure the empirical chapter as well as the analysis. Moreover, the categories will be split into themes in order to help the authors to address the categories.

<table>
<thead>
<tr>
<th>categories</th>
<th>Questions asked</th>
</tr>
</thead>
<tbody>
<tr>
<td>KS from a strategic perspective:</td>
<td>• Do you sometimes help your colleagues out with your expertise/skills/information or provide them with docs that you used in the past? What type of information/knowledge is important for your work? Do you share only when you asked or is information shared on beforehand where others can have access? Which tools do you use for that? How do you do that? (e.g. phone calls, e-mail, chat, meetings, shared drive, intranet, coffee break, etc.)</td>
</tr>
<tr>
<td>• importance of KM</td>
<td>• The question above describes the concept of knowledge sharing questions about KS within the company</td>
</tr>
<tr>
<td>• tacit and explicit knowledge</td>
<td></td>
</tr>
<tr>
<td>• employees’ perception of KS</td>
<td></td>
</tr>
<tr>
<td>the implementation of knowledge sharing:</td>
<td>• Alstom has introduced a Knowledge Transfer Handbook (KTH), did you hear about it?</td>
</tr>
<tr>
<td>• the KS process</td>
<td>• How would you perceive and describe it? (e.g. useful, helpful, heavy, easy...)</td>
</tr>
<tr>
<td>• the KTH</td>
<td></td>
</tr>
<tr>
<td>• KS practices</td>
<td></td>
</tr>
<tr>
<td>the perceived motivators/barriers of</td>
<td>• Do you feel any barriers to share your knowledge?</td>
</tr>
<tr>
<td>knowledge sharing:</td>
<td>• Do you feel that your managers encourage the knowledge sharing behavior/culture? In what way?</td>
</tr>
<tr>
<td>• motivators</td>
<td>• Do you think that Alstom encourages its employees to share their knowledge?</td>
</tr>
<tr>
<td>• barriers</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Questions allocated to the categories
2.11 Conducting the interviews

The authors will perform the interviews in two ways, namely phone interviews and e-mail interviews. The potential issue of getting in touch and establishing contact with the targeted employees will be avoided since one of the authors had already worked with them.

The e-mailed interviews provide some advantages. The first one is that it permits to prevent the researchers from audio reporting mistakes (Morgan & Symon, 2004, cited in Saunders et al, 2009, p.350). Moreover, it is guaranteed that the employees’ words will be exactly as they wrote and meant. In that respect, employees would feel less apprehension concerning the accuracy and towards being interviewed. (Saunders et al, 2009, p.350) Some respondents also might feel more confident for interviews via e-mail because of language issues or because they might prefer writing to talking. Furthermore, the authors were able to reach the team that is spread to several locations at the same time. (Meho, 2006, p.1288) Answering an e-mail interview makes some people feel more confident than face-to-face (Meho, 2006, p.1289).

However, the authors will not be able to detect the employees’ emotions. In order to complete the written answers, the authors will try to reach the employees by phone as well afterwards for follow up interviews to look further into the explanations and motivations of employees. Another advantage is that e-mail interviews allow the respondents to answer the questions when it is convenient for them (Mangione, cited in Bickman & Rog, 1998, p.399). Furthermore, Meho (2006, p. 1291) states that people are more focused on the question itself and provide more reflective responses. Bryman (2008, p.218-219) discusses the disadvantages of sending interviews by email. In fact, he states that with email interviews, the interviewees cannot ask for help if they do not understand the questions. Moreover, another disadvantage that Bryman raises is that the respondent can read the whole interview guideline before answering the questions. Finally, the last main disadvantage can be the problem of missing some data; the respondents might not give full and in depth answers. Meho (2006, p.1289) further raises the fact that some employees are more keen on talking than on writing, which might influence the depth and willingness of people to answer. Therefore, the authors of this thesis will conduct phone interviews as well.

When conducting the phone interviews, the authors sent an e-mail to ask about the employees’ availability in order not to bother them. During the phone interviews, both authors of this thesis were present in order to reduce the risk of mistranscription, and so that both of them could have the opportunity to ask questions. The phone interviews will permit the authors to explain more about the questions if necessary. Further the interviewee will not face difficulties concerning the level of language and potential misunderstandings since one of the authors knows the interviewee personally, so the discussion will be facilitated a lot. The authors are aware that transcription will be a difficult part, as explained by Saunders et al. (2009, p.349), but this eventual issues will be tackled by sending the script back to the employee to ensure accuracy and fairness.
The authors have decided to make a table that summarizes the interviews, how they took place and the environment of the phone interviews.

<table>
<thead>
<tr>
<th>Code</th>
<th>type of employee</th>
<th>years in Alstom</th>
<th>interview</th>
<th>comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>M6</td>
<td>Manager</td>
<td>11,5</td>
<td>phone - 40min - on May, 8th</td>
<td>Since he was the former manager of one of the authors of this thesis, the atmosphere was really relaxed. Due to this relationship, he really tried to give extended answers and in depth answers. He was sitting in his office and the door must have been closed, because it was really quiet and he was not interrupted even once.</td>
</tr>
<tr>
<td>T3</td>
<td>Trainee</td>
<td>7 months</td>
<td>phone - 50min - on May, 9th</td>
<td>The trainee was willing to help, but still, the authors felt she he/she was a bit insecure on some questions. When conducting the interview, the trainee was in his/her office with the two other trainees, it was very quiet. The interview lasted for about 55 minutes, first because one of the authors knew him/her so she talked with him/her to reassure him/her. It was easy to conduct the interview because the authors and the interrogated trainee are the same age.</td>
</tr>
<tr>
<td>E4</td>
<td>Employee</td>
<td>12</td>
<td>e-mail</td>
<td>The employee answered on May, 15th.</td>
</tr>
<tr>
<td>E5</td>
<td>Employee</td>
<td>8</td>
<td>e-mail</td>
<td>Received the day the authors sent the interview guideline, on May, 6th.</td>
</tr>
<tr>
<td>E6</td>
<td>Employee</td>
<td>3</td>
<td>phone - 43min - on May, 19th</td>
<td>When conducting the interview, the employee was relaxed, open-minded and available to take his/her time to answer. The employee was enthusiastic, smiling and calm. The interview was easy because even if the employee was in his/her open space offices, the two other employees present did not interfere or did not make any noise. The employee took his/her time to think about his/her answers because he/she was willing to give as much information as possible. Moreover, he/she paid attention to the authors to make sure they were following his/her thoughts and were able to write his/her answers. He/she only sounded surprised and very slightly destabilized when the authors went in the KTH questions at the end. The employee being young, the answers were sometimes a bit informal.</td>
</tr>
<tr>
<td>T2</td>
<td>Trainee</td>
<td>8 months</td>
<td>e-mail</td>
<td>Received on May, the 23rd.</td>
</tr>
</tbody>
</table>

Table 2: Details about the conducted interviews
2.12 Processing of the interviews

For processing qualitative data, there are many ways of doing so. Taylor & Bogdan (1998, p.140) even state that every researcher has his/her own way. The interpretation of this qualitative data, as they call it, is influenced by the researchers’ experience, as well as by the mentor, who supports them in identifying patterns or pointing out themes in qualitative data. (Taylor & Bogdan, 1998, p.141; Morse, 1994, p.24)

Because the authors of this thesis are taking an inductive approach, the analysis of data is crucial for generating a theory out of the collected information. Moreover, knowing that the authors have chosen an interpretive viewpoint, they will have to develop arguments and conclusions from the perceptions of the interviewed employees. The analysis will rely on the ability of the authors to understand and draw conclusions with regards of their own social backgrounds, combining the empirical findings with the scientific articles to establish new insights. Therefore, the relevant literature is formed to a theoretical framework that provides all necessary concepts and definitions and allows the authors of this thesis to develop an interview guideline out of that, as already described before. The data will be presented according to three sub purposes that have been formulated in the introduction (see table 2.10).

The analysis of data is described as a dynamic process, which allows the researchers to get a deeper understanding of what they wanted to study and it enables them to continually refine their interpretations. As described by Taylor and Bogdan (1998, p.141), researchers have to continually keep track of emerging themes that come up whilst reading through transcripts etc., develop concepts and propositions. According to Creswell (2003, p.190), data analysis is supposed to make sense of data and image data. This process implies preparing data for analysis, conducting different analyses, digging deeper into it and getting deeper understanding of the data, to be able to interpret the data in the end. In order to do so, the researcher should take as much notes as he can in order to remember the conditions when the interviews took place. The notes have to be descriptive; this will help the researchers to sort out the data collected in order to be able to codify them. (Morse, 1994, p.28) As Morse (1994, p.24) explains, confirmed by Taylor & Bogdan (1998, p.141), coding is the central process means to uncover the underlying messages of the respondents’ answers and the meaning behind their words.

The authors will follow the advice of Creswell (2003), who suggests six steps for qualitative data analysis and interpretation. Therefore, those steps will be explained shortly and then the authors will state their proceeding.

Step 1 - Organize and prepare: This involves the transcription of interviews, optically scan material, typing field notes etc. (Creswell, 2003, p. 191) This means that the authors will gather the e-mail answers of the employees and will add the transcription of the recorded phone interview.

Step 2 - Reading through all collected data in order to obtain a general sense of the information, as well as to develop first ideas how to proceed and use the information in a credible way. (Creswell, 2003, p. 191) Then, the authors need to read all the scripts in order to understand and get a broad picture of how the employees perceive the Knowledge Transfer Handbook.
Step 3 - Start the coding process, this means re-organizing the collected material by categorizing it, before meaning is given to it. This means that text data will be categorized and those with a term need to be labeled. (Creswell, 2003, p. 192) From this, the authors would already have a hint on how it can hinder or motivate their behaviors. As already stated there is a clear intention behind most of the questions, therefore it is necessary to sort out the answers for each question to be able to see differences between the respondents.

Step 4 - This step involves “a detailed rendering of information about people, places, or events in a setting”. Creswell especially recommends this step for case studies, ethnographies, and narrative research projects. This information can be codified as well, to generate a number of themes or categories. (Creswell, 2003, p. 193-194) Therefore, the authors have allocated the questions of their interview guideline towards the sub purposes of their thesis. Detailed information about employees has been gathered through an e-mail to M6, who provided data about number of years that the single employees have been working for Alstom.

Step 5 - At this step, it is time to think about how the descriptions and themes are going to be presented. This can be done through a narrative passage to discuss several themes, figures or process models etc. (Creswell, 2003, p. 194) The answers of the respondents will be confronted to each other, to see if there are any differences in the perception of the knowledge sharing and the KTH. Finally, the authors decided to make use of the empirical material to discuss the actual statements of their respondents.

Step 6 - Make an interpretation. This includes the lessons that the researchers learned, such as personal interpretation, individual understanding. (Creswell, 2003, p. 194-195) In the last step, interpretation and conclusion will take place, the authors will interpret the answers and put them back in the context to gain explanations and be able to draw out schemes or behaviors from that. This will serve to conduct the analysis and build new insights for the existing theories.

2.13 Choice of Literature

In the beginning, books on the topic of knowledge management and knowledge intensive work have been chosen, to get an overview of the topic. However, to get more updated information, the authors started to look for relevant peer-reviewed articles in highly acknowledged databases such as: EbscoHost, Emerald, ScienceDirect, Sage Journals and Scopus. When doing so, some key words, alone or in combination with each other have been used: knowledge management, knowledge sharing, knowledge transfer, knowledge management process, barriers in knowledge management, individuals. With these key words, published articles within the Journal of Knowledge Management, Journal of Management, The Journal of Information and Knowledge Management Systems etc. could be found. By doing so, the authors could observe that there are some main authors who mainly influenced the researched area, such as Nonaka & Takeuchi (1995), Davenport & Prusak (1998), Drucker (1993).

Reading the abstract, discussion and conclusion of the articles helped the authors to understand the main idea and thereby define a research gap within the existing literature. After having defined the area to investigate, the articles have been read with a focus on terminologies of knowledge management and barriers and motivational factors within. Furthermore, the primary resources have been taken into account, as well as the bibliography
in the end of articles has been checked to find additional sources, in order to get a full picture of the investigated area and to give the study more credibility.

The authors have opted for the RBV theory within the strategic management, because they consider knowledge as a strategic resource for companies. Additionally, the authors of this thesis consider the introduction of a knowledge sharing policy as a strategically important step for a company. However, knowledge is seen as a resource, it is an intangible one, which is explained in the chapter of tacit and explicit knowledge. Since the authors investigate the influence of knowledge sharing policies, the choice of developing the different ways of implementing knowledge management felt sensible to first explain the mechanisms of knowledge management. Then, the authors were able to develop upon the concept of knowledge sharing and knowledge transfer and how they relate because the basic mechanisms were set. Then, upon the mechanisms of knowledge sharing, the authors completed the framework with explaining how individuals deal with those, the impact of those processes on them, and how they handle them.

2.14 Source criticism

When looking at the quality of the literature the authors choose, some criticism can be raised. The authors have to pay attention and evaluate the literature they have used in order to ensure the relevance of the articles and the credibility of the theoretical framework (Saunders et al, 2012, p.107-108)

Some could argue that the authors have based their theoretical framework on the work of Nonaka and Takeuchi, which is dated from 1995. Indeed, even if the pieces of work of those authors could be considered as old fashioned and outdated, they constitute the basis for this research. When the authors of this thesis were looking for scientific articles, they found out that Nonaka and Takeuchi were cited many times and were many times in the reference list of the articles. Thus, it appears that Nonaka and Takeuchi are key authors when studying knowledge sharing. In order to have a credible and reliable theoretical framework, the authors of this thesis could not but use Nonaka and Takeuchi’s articles.

In fact, the same criticism could be stated concerning the use of Davenport and Prusak, whose pieces of work are dated from 1998. As for the work of Nonaka and Takeuchi, Davenport and Prusak are key authors when investigating the knowledge management field of study. It was necessary for the authors of this thesis to cite and look for their pieces of work because they were cited in many more recent articles the authors of this thesis were using. Thus, in order to have a majority of primary sources, it became necessary to obtain and use their articles.

Apart from those two major actors of the field of study, the other articles that the authors of this thesis are using are mostly less than six years old. Thus, the authors of this thesis have tried to get recent articles in order to have content and theory that are fairly accurate and up to date. Moreover, the authors of this thesis took all their articles from scientific databases like Emerald, EbscoHost, Sage Journals, Scopus, Revue.org in order to ensure credibility and reliability of the used articles and authors used. In addition to that, the authors of this thesis took some of the articles and authors from the reference list of scientific articles in order to reach more relevant articles on the subject, and to ensure to have the primary source of the developed concepts.
2.15 Ethical considerations

There are four main areas of ethical principles introduced by Diener and Crandall (1978, cited in Bryman & Bell, 2011, p. 128) which will be applied in this part of the methodology: harm to participants, lack of informed consent, invasion of privacy and deception is involved.

The purpose of the research does not require mentioning neither the names nor the position held by the interviewed people. Because a small team is going to be investigated, the name of the specific department is not mentioned, since this would endanger confidentiality. Therefore, the respondents’ names will be coded with the letters M, E and T, according to the position held (Manager, Employee or Trainee). Additionally there will be added numbers to be able to assign the people to the provided organizational chart. This confidentiality should also ensure that no one would face consequences concerning future career and working opportunities. If any of the participants has doubts, it is up to him/her to drop out of the research. Due to time restrictions, the employees’ stress level might be increased, since it will be necessary for them to respond within a short time frame, which is described as one form of harm by Bryman and Bell. (2011, p.129)

As one part the research concerns the policy of Alstom, we presume that all the employees investigated know this policy. Additionally, during the interviews they have the chance to ask if something would be unclear. Further, we will state the purpose of the research in the beginning. However, as Homan (1991, cited in Bryman & Bell, 2011, p.133) states: it is easier said than it is done. He mentions two reasons for this: firstly, it is difficult to estimate which information the prospective participants will need; secondly, researchers will be in contact with a wide range of people, therefore it is not always easy to ensure that everyone has the same information.

Regarding the purpose of our research and the chosen sample, the authors will not ask any personal questions. However, it is evident that we will ask questions about the interviewees’ opinion. Therefore, as stated above, it is necessary to keep their identity confidential. (Bryman & Bell, 2011, p. 136)

Additionally, it needs to be stated that the company’s internal processes visualized and published in the KTH are highly confidential as well, since they will permit the company to differentiate from competitors. Therefore, the authors decided to state information that is either not confidential, common knowledge or not endangering the competitiveness.

Being supported by the department implies that they know what we are doing and that the purpose is known. Therefore, deception can be avoided. As stated in Bryman & Bell (2011, p.137), the respondents should be informed beforehand if observation techniques or recording equipment are used. The clarification will make the respondents feel secure and thereby decrease the risk of dropouts.

2.16 Quality criteria

Judging or evaluating qualitative research can be done in two ways, either adapt the matter of reliability and validity, which is usually used for quantitative research; or choose alternative criteria for assessing: trustworthiness and authenticity. The authors have decided to focus on the criteria of trustworthiness. Following this approach, it has to be described further, before
applying it to the research. It consists of four criteria: credibility, transferability, dependability and confirmability. (Bryman & Bell, 2011, p. 395)

Credibility describes whether or not the conducted research is done and presented in a credible way, meaning that the interpretation that has been done by the researchers is credible and logical according to the collected information. (Bryman & Bell, 2011, p. 397) For this thesis, it means that the authors have looked for acknowledged and recognized scientific articles to build their theoretical framework. Moreover, it also implies that they have built their interview guideline in line with this literature and will build their conclusions upon the confrontation between the theoretical framework and the respondents' answers. Thus the conclusions will be logical and credible from the literature and from the interviewees’ responses.

As stated by Bryman & Bell (2011, p. 398), the matter of transferability deals with the question if these findings can be transferred to some other context or to the same context at another point of time. The results might be applied to another communications department at another location of the Alstom group; however, the authors do not think that it can be applied to every department. Therefore, it would be necessary to conduct the research on different units first. The applicability to other companies is not given, since the Knowledge Transfer Handbook is specifically designed for the Alstom group, so employees and thereby their responses will be (maybe unconsciously) influenced by that.

Dependability relates to the fact of making all the pieces of work accessible that have been processed during the research. In other words, the reader should be able to find all the material used by the authors in this thesis report, including the articles, the theories used, the way the interviews have been processed; so it is what the researchers do and how they come to their conclusion (Bryman & Bell, 2011, p.409). Dependability can be paralleled with reliability in quantitative research (Bryman & Bell, 2011, p.395). Therefore, it feels sensible to add four threats to reliability that are mentioned by Saunders et al. (2009, p. 156): subject or participant error, subject or participant bias, observer error and observer bias. Considering these threats implies thinking about several things: There is a difference at which the time the people are interviewed (subject or participant error), however, the provided interview guideline should be returned within one week. This means, that the interviewees can choose the point of time by themselves within the given time frame. There might be some influences the participants face (subject or participant bias), being under pressure to answer since their boss wants them to participate. However, by ensuring confidentiality, the authors try to reassure the employees on the confidentiality of their answers.

By doing the interview via e-mail, the interviewees are not influenced by the interviewer’s way of asking questions (observer error). However, it must be said that the interviewers have no influence on how the questions are understood (observer bias). In contrary to this, when conducting phone interviews, the authors could ask additional questions, if misunderstood, and thereby avoid observer bias. On the other hand, the matter of observer error was faced.

Confirmability deals with the objectivity of the researchers. Indeed, as stated by Bryman & Bell (2011, p.398) the researcher should strive to avoid personal values that could bias the research. In this thesis, even though the authors took an interpretivist approach, and even though Manon Grünfelder knew the team, since Angelika Hartner does not, it permits to have another perspective when processing the interviews.
3 THEORETICAL FRAMEWORK

The literature review should provide the theoretical framework of this thesis. As a starting point, the authors took the strategic management perspective, which includes the approach of resource-based view. The differentiation between tangible and intangible resources leads to the assumption that knowledge is an intangible one. Knowledge management, its processes, implementation and in particular, the implications of knowledge sharing and knowledge transfer are explained. To conclude, barriers and motivational factors for knowledge sharing are discussed.

3.1 Knowledge as a strategic resource

Knowing the aim of this research, the authors considered of utter importance to make the reader aware of the practical impact of knowledge sharing for companies’ survival. As cited in the introduction, Tiwana (2010) as well as Snyman & Kruger (2004, p.5) explained how strategic management and knowledge management are interrelated and dependent on each other. As Davenport and Prusak (1998) or Mahdi et al. (2011) have shown, knowledge is a crucial asset for competitiveness. Indeed, Davenport and Prusak (1998) also state that the biggest advantage of knowledge is that the returns on benefits are never ending, in contrary to material assets.

3.1.1 Strategic Management

Strategic management should enable companies to learn from their internal and external environments, choose new directions in order to reach set up goals, as well as execute those strategies, which results in the ability to satisfy stakeholders. (Harrison & St. John, 2011, p. 4) The conventional approaches on strategic management are founded on the principles of Ansoff, Andrews and Chandler. (Brahma & Chakraborty, 2011, p. 7) Three generic strategies, which have been introduced by Michael Porter in 1985, advise companies on how to deal with a competitive environment and is seen as the centerpiece in the school of competitiveness. (Stonehouse & Snowdon, 2007, p.257) An appropriate knowledge management strategy is seen as a tool to build competitive advantage in the long term and therefore differentiates companies from competitors. (Davenport and Prusak, 1998; Zack, 1999; Alavi and Leidner, 2001; cited in Mahdi et al., 2011, 9924) Mahdi et al. mention two factors in terms of what KM can do for sustainable competitive advantage: Firstly, it can enhance the transformation from tacit to explicit, as well as from individual to organizational knowledge. Secondly, it is important to keep knowledge updated, since it is seen as dynamic and has its own lifecycle. (2011, p. 9926)

In this research, we are looking on companies from a strategic perspective and the focus is put on knowledge transfer. Therefore, we are focusing on the approach of the resource-based view, which is one of the six ideas and theories that Harrison & St. John (2011, p. 10) introduce concerning strategic management. They assume that the manager’s task within the RBV is to acquire and manage resources to achieve sustainable competitive advantage.

3.1.2 Resource-based view (RBV)

One development that has found high acceptance and is rooted in the early strategic management, is the approach of resource-based view (RBV). “If a resource that a firm possesses has value in allowing a firm to take advantage of opportunities or neutralize
threats, if only a small number of firms process it, if the organization is aware of the value of the resource and is taking advantage of it, and if it is difficult to imitate, either by direct imitation or substitution for another resource, then it may lead to sustainable competitive advantage.” This sustainable advantage is difficult to imitate for competitors and leads to a higher performance compared to competitors in the long term. (Harrison & St. John, 2010, p.11) This approach assumes that firms have different resources, which can be categorized into financial, physical, humans, general organization and knowledge and learning. (Harrison & St. John, 2010, p.11) Therefore, it is also possible to make a differentiation between tangible and intangible resources. (Molloy et al., 2011, p. 1497) These assets should be valuable, rare, imperfectly imitable and non-substitutable (Meso & Smith, 2000, p.224), also known as VRIN (Johnson et al., 2011, p.89). Greco et al., who present a strategic management framework that takes the principle of value drivers (VD), also apply this theory. VD can be divided into two categories: tangible and intangible assets. The tangible category implies organization’s equipment and infrastructure, as well as technology. The Intangible category embraces two sub-groups: relationships and knowledge. First, relationships describe diverse networks and structures. Internal relationships are showing the interaction between employees within a company, who must not be necessarily on the same hierarchy level. External relationships refer to external stakeholders. In general, this dimension can be called “social capital”. Second, knowledge deals with tacit and explicit knowledge. (Greco et al., 2013, p. 57) This point will be further explained later on in this chapter, see 3.2.2.

To be able to proceed and describe the matter of knowledge management and knowledge transfer, it is evident to discuss knowledge beforehand. The understanding of the concept of knowledge can be considered as a prerequisite for knowledge management. This implies the necessary differentiation between knowledge, information and data.

3.2 Knowledge

3.2.1 From data to knowledge

The Open Knowledge Foundation has provided one definition of knowledge: “The term knowledge is used broadly and it includes all forms of data, content such as music, films or books as well any other type of information”. Critics however say that it does not distinguish between data and information. (King, 2009, p.16) Therefore, it might be useful to differentiate between those terms to understand knowledge as such.

Data can be described as static, unorganized and unprocessed facts. For example, “John is 6 feet tall” is data, which seems to be unnecessary; however, the meaning of it might be important. The data of John’s height, would make him beneficial for a basketball team, this is information. Data usually tells nothing about the motivation behind, it is just a set of discrete facts about events. (Awad & Ghaziri, 2001, p.36)

According to Awad & Ghaziri, information can be described as an aggregation of data, which makes the decision making process easier. It is based on facts and figures gained from processed data. As distinguished from data, relations, meanings and purpose are understood. This implies that data has been analyzed or reorganized and so, “meaning or value is added to improve the quality of decision making”. (Awad & Ghaziri, 2001, p.36-37)

As stated by Davenport and Prusak (1998, p.5), knowledge is: “a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for
evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms.” This definition explains that knowledge is an evolving concept that embraces and derives from information; information which itself derives from data. Thus, knowledge is data combined with information. Hence, in order to build knowledge, it is the work of the individual to do the process to turn data into knowledge.

Figure 1: Knowledge pyramid (authors)

As seen above, information derives from data and so does knowledge from information. It is seen as an understanding of information, based on the perception how important or relevant it is for a specific area, but also including perception, skills, training, common sense and experience. From this, it can be concluded that knowledge can lead to competitive advantage in business. (Awad & Ghaziri, 2001, p.39) When focusing on knowledge as a sustainable competitive advantage, Awad & Ghaziri (2001, p.37), define knowledge as “human understanding of a specialized field of interest that has been acquired through study and experience”.

Thus, when trying to understand knowledge several approaches can be taken into consideration (Awad & Ghaziri, 2001, p.42-57), however when considering knowledge as a competitive advantage for organizations, the explicit and tacit knowledge approach is taken. (Corrigan et al., 2012, p. 828) This is why the authors of this thesis will go through several definitions in order to finally provide the reader with a complete understanding of the concept.

3.2.2 Explicit and tacit knowledge

Explicit knowledge is knowledge, which has been codified and digitized in books, documents, reports etc. Obviously, it is easy to identify, because it is can be seen as a physical entity that is measurable and can be distributed among employees. There are different possibilities to store it e.g. in a document or as a process in a computer. This implies that it can be retrieved and accessed very easily and thereby it can be reused for the decision making process. (Awad & Ghaziri, 2011, p.47) This is can also be seen as the traditional approach of KM, it is about managing knowledge that has already been articulated in some form. (Corrigan et al., 2012, p.828)

In contrast to this, tacit knowledge is gained from experiences, reflection, internalization and individual talent. (Corrigan et al., 2012, p.828) Its sharing is difficult in terms of space and time. (Awad & Ghaziri, 2011, p.47) Because tacit knowledge is often stored in a non-verbal form, employees are most of the time not aware about their abilities and competences “or are incapable of expressing something that for them is natural and obvious, irrespective of their qualifications”. (Haldin-Herrgard, 2000, cited in Corrigan et al., 2012, p. 828) As Corrigan et al. (2012, p.828) highlight, there is a greater need of storing and managing tacit knowledge,
because it is considered to be the source of sustainable competitive advantage. Indeed, companies face an increased need of how to share and transfer tacit knowledge between employees and teams, in order to keep it within the company and prevent the loss of the knowledge through employee turnover. “Because individuals are the fundamental repositories of tacit knowledge they are the key to success of any knowledge management initiative” (Tohidinia and Mosakhani, 2010; cited in Corrigan et al., 2012, p. 828).

To organize knowledge and to cope with this challenge, organizations focus on two strategies: people and technology. The technology perspective deals with the choice of appropriate knowledge management systems (Corrigan et al., 2012, p. 828), however, since this thesis is focusing on the individuals’ intrinsic barriers on knowledge sharing, the authors of this thesis only focus on the people strategy of Corrigan et al. (2012), even though they are aware that one goes along with the other.

The people-focused strategy is supposed to help the sharing of employees’ experiences, know-how and other expertise that is applied and used in organizational context and cannot be stored easily in documents. Done the right way, it facilitates transforming tacit into an explicit format, “where its value can be extracted and captured for use beyond a once off point-in-time social interaction between an individual or collective”. It is required to find a way of optimizing the way how new knowledge is developed and already existing knowledge can be exploited. Therefore, organizations need to promote the dynamic capabilities that are required to convert the available tacit knowledge into appropriate structures, processes, products and systems. (Corrigan et al., 2012, p. 828) The externalizing process involves a codification and articulation of knowledge in a language that can be understood by others. (Corrigan et al., 2012, p. 829) However, there are two issues to consider, there is a number of challenges connected to the externalizing process of the insights and competences of people and their internalizing of it for the application to tasks. In addition, it is necessary to introduce a more precise methodology, a way to measure the benefit and manage to get an idea to which extent the sharing of knowledge influences individuals’ competence. (Corrigan et al., 2012, p. 828)

3.3 Knowledge Management

In this part, the authors will explain why knowledge is crucial for a company and the consequences of not handling it properly. By doing so, the aim is to emphasize the importance of knowledge management. Then, the authors will explain two main models of knowledge management implementation because they are the most suitable for them to build their own model of knowledge management. To finish, they will also address complementary ways of implementing knowledge management, being knowledge sharing policies.

3.3.1 Introduction to Knowledge Management

Heath (2003, p. 184) defines knowledge management as being more than just the management of knowledge. He argues that knowledge management deals more with information technology, culture and managing infrastructures. According to him, knowledge management would rely on establishing specific policies, IT systems, but also developing a cultural environment in which the knowledge created would then become shared and better used (Heath, 2003, p. 184). In her article Rowley (1999, p. 416) explores what knowledge management is in general. She tries to clarify the concept and outlines what the main components of knowledge management are and thus, how it can be handled to implement efficient knowledge management strategy. As she explains, the concept of knowledge management (KM) has become a trend the last few years, but she aims at making people
aware of the potential impact of understanding knowledge management and be able to implement it to make a company more efficient (Rowley, 1999, p.416). Within knowledge management, the knowledge has been defined several times; however, there is no consensus opinion about its characteristics. (King, 2009, p.16) Therefore, we make use of the already mentioned definition of Hislop (2009, p.59): “an umbrella term which refers to any deliberate efforts to manage the knowledge of an organization’s workforce, which can be achieved via a wide range of methods including directly, through the use of particular types of ICT, or more indirectly through the management of social processes, the structuring of organizations in particular ways or via the use of particular culture and people management practices.” Senge (1990, cited in Rowley, 1999, p.416) developed that companies were facing difficulties because they were unable to learn; the strength for survival would then be to manage being aware of what the company learns and be able to reuse in order to make the company able to adapt to its changing environment.

3.3.2 The importance of Knowledge Management

The importance of the potential impact of knowledge loss is to make the reader aware of the crucial aspect of knowledge on the organization and the utter reason for keeping the knowledge within the company. Thus, the authors of this thesis try to emphasize the reasons for companies to handle the knowledge they develop and to establish a proper and appropriate system or strategy.

Innovation and the development of new products is an essential part of a company’s success and way of achieving competitive advantage. Beyond dispute, knowledge, skills and employees’ expertise play a crucial role in this. (Shankar et al., 2013, p.2050) In his article, Massingham (2010, p.541) raises questions about what happens to knowledge when an employee leaves the company. For example, the retirement of employees is not only a barrier within knowledge management, it is one way of how knowledge practically walks out of the door and thereby, an important driving force of the company might get lost. (Sharma et al., 2012, p.38) Starke et al. reveal that, in case of the leave of important employees with special skills and knowledge hard to imitate, the company will struggle to cope with such departures (Starke et al., 2003, p.209). Some researchers have raised some difficulties for organizations nowadays linked to the departure of key employees. First, Beijerse (1999, p.84) states that knowledge has become the most valuable resource of a company. So when employees leave the organization, they leave with their knowledge, which is hard to replace exactly as it were Dess and Shaw (2001, p.448), who have acknowledged this statement as well saying that information process and knowledge would create nowadays more added value for firms. Some researchers have identified several negative effects due to knowledge loss like a decrease in the output of an organization (Droege & Hoobler, 2003, p.57) or a decrease in productivity as stated by Osterman (1987, cited in Massingham, 2010, p.542). Lahaie (2005, p.xxxvi) has also talked about the impact on the organizational memory. Moreover, Cascio (1993, cited in Massingham, 2010, p.542) has studied the impact on economic aspects and identified that knowledge loss would lead to troubles in the organizational functioning, or would affect negatively the employees’ motivation among other factors.

The findings of Massingham’s research show that the impact on human capital would not be so critical because the company would have prepared the potential departure of a key employee in order to prevent struggling, so it would replace the employee by an existing employee with similar experience (Massingham, 2010, p.547). When it comes to the potential loss of productivity because employees do not have the same level of knowledge,
Massingham explains that the risk would be reduced if the company still has expert employees. This means that the remaining employees would not be dependent on the leaving employee and would handle the fieldwork. (Lahaie, 2005, p.xxxvi; Massingham, 2010, p.549) Concerning the findings on the social capital, the impact on the organizational knowledge could be minimized. Indeed, Schulz states that the company should identify the nodes, the networks within the structure, in order to know who relies on which employee and identify how to generate new nodes (2001, p.667). Concerning the impact on structural capital that could result in a decrease in the organizational learning, the author proposes a process to prevent from that. According to Massingham, it would be important for the company to determine whether the employees contribute to the stock of knowledge and to what extent they use the system to learn as well. (2010, p.554) When talking about the outcomes for the relational capital, the author found out that the possible negative impact on the flow of tacit knowledge could be overcome. Considering the work of Schulz and Maister et al. (2001, 2000), the flow can depend either on positions or on the individuals themselves, and it would be more risky when relations rely on individuals. Massingham states that employees should be aware of that and thus, should trust colleagues to share the knowledge flow. (2010, p.555-556)

3.4 Implementation of Knowledge Management

Davenport et al. (1998, cited in Rowley, 1999, p.417) established four steps to handle KM, being 1) to create knowledge repository, 2) to improve knowledge access, 3) to enhance knowledge environment, 4) to manage knowledge as an asset.

1) As Davenport et al. explain, the first point relates to information in documentary form. Information includes the external knowledge such as competitive intelligence; internal knowledge like techniques, methods, procedures of the company; and informal information, called tacit knowledge, like the know-how and the information given in discussions.

2) To improve the access to the company knowledge, to facilitate the transfer of knowledge among individuals, the company must put in place tools like telecommunication networks, video conferencing systems for instance, to foster connectivity between the employees and make the sharing and transfer possible or even natural for employees to contribute to and communicate together.

3) According to Davenport et al. (1998), companies should look for establishing an environment favorable for knowledge creation, as well as its distribution and use. In order to create such environment, companies should put in place certain norms and rules like initiatives to foster motivation, to promote the importance of knowledge so that employees would gain awareness of the concept and their contribution. An example of this could be to propose bonuses and incentives to attract employees and make them willing to contribute.

4) Finally, the last step is to manage making knowledge an asset and to manage to recognize the potential power and value of it. Technologies or customer databases are intangible assets of a company that definitely have value for it. Indeed, Skyrme and Amidon (1998, cited in Rowley, 1999, p.417) have acknowledged that knowledge could be measured with the balanced scorecard. Using such tool permits to assess the company from another perspective than its financial performance. This provides perspectives like customer knowledge, internal process, innovation and learning, and to finish, financial assessment. Then, this tool would
permit to reveal the capacity of a company to learn from the projects it handles and thus, be innovative and develop its knowledge even further.

Therefore, those four types of approaching knowledge management show how wide and diverse this concept embraces. Rowley (1999, p. 417) also states that other categories or steps have been developed by other authors, but in every models, the fact that knowledge management includes many facets is a constant. O’Leary identifies the organizational knowledge management as being the formal management of knowledge resources that facilitate the access and the use of knowledge. In addition, this relies majorly on the use of information technology to enable the storage and sharing of the knowledge (O’Leary, 1998, cited in Small & Sage, 2005/2006, p.155).

The model of Davenport et al. (1998) is one way of implementing knowledge management. However, the authors of this thesis choose to add the model of Biasutti & EL-Deghaidy, to show the implementation from another perspective.

The model that Rowley uses can be described further, enlightened and completed with the model that Biasutti and EL-Deghaidy have developed. In fact, they permit to bring a better understanding of the steps because those steps described by Rowley can be considered as the basic approach. Rowley aimed at describing and explaining broadly the concept of knowledge management. Thus, Biasutti and EL-Deghaidy allow the authors of this thesis to add another perspective and explanation of how knowledge is developed, gathered and used within a company.

According to Biasutti & EL-Deghaidy (2012, p.863-864) the knowledge management process can be described as a loop. It starts by the knowledge acquisition. This concerns mainly strategies, tools and methods that can be applied to find and acquire knowledge, e.g. search engines, databases, management systems and document management systems.

As a second step within the loop, knowledge internalization can be identified. It describes the process of linking the newly gathered information with existing mental schemata. At the same pace, it describes how knowledge is stored and organized. After having finished this step, knowledge creation can take place. As it starts by collecting the existing knowledge, it ends with storing processes and passing by processes of coding and classification of knowledge, these results in a collection and a clustering of knowledge with similar characteristics.

The “knowledge sharing process is the key to enhance the externalization and dissemination of knowledge”. It gives knowledge seekers access to necessary knowledge and thereby the knowledge acquisition is promoted. Kupusamy (2009, cited in Biasutti & EL-Deghaidy 2012, p.863-864) identified three pillars to enhance the sharing process and make it more effective and sustainable: trust and mutual respect, knowledge tagging and community recognition. These points show another perspective that can be put on knowledge management, the social aspect. In communities, as companies are, members share experience, which implies tacit and explicit knowledge. Within this process, conflicts and disagreements can occur; on the other hand, it supports critical thinking and makes sense of their experience.

Finally yet importantly, the knowledge application and innovation process takes place. At this stage, decisions are taken. It is also seen as the ultimate goal of KM and the fundamental purpose is to give value to the knowledge and thereby “create new wealth for the community by seeking new inventions, acquiring new knowledge, exploring and mastering the new rules
reach objectives, they connect academic content to the context of life’s situations, and in this way discover meaning”. (Johnson, 2002, cited in Biasutti & EL-Deghaidy 2012, p.863-864)

Hence, when considering the two models presented and developed above, the authors can show how those two approaches could be combined and how they relate to each other in order to create their own model.

### 3.4.1 Knowledge Management Model

The model would start with the first step described by Biasutti and EL-Deghaidy (2012) meaning that the company needs to be aware of the potential impact of developing and using knowledge on their performance. When they acknowledge that knowledge has a key role to play, then, they can acquire and create new knowledge. Then comes the internalization step, which the authors put closer to the step of Rowley (1999), being the development of repositories. The new knowledge has to be integrated into the already existing knowledge in order to have all the knowledge stored the same way and in the same place. This would permit to move on to the third step being the access and the sharing step. Meaning that when the new knowledge is codified in the proper way, stored with the already known knowledge, then it becomes accessible for the employees, but the company has to enhance employees to have a look to that knowledge as well as taking part in sharing their own knowledge. So, by creating a sharing environment, a culture of sharing, companies would create an atmosphere of sharing which permit to improve and help the access to new knowledge and to the stored knowledge (those are Davenport et al.’s second and third steps); this can be done through the implementation of the so called sharing process step of Biasutti and EL-Deghaidy (2012). Finally, the last steps of the two models of both Davenport et al. (1998) and Biasutti and EL-Deghaidy (2012) go along together. Indeed, if companies apply and use the new knowledge in their decision making process, then this means that the companies turn that knowledge into an asset for them, and make that knowledge a crucial resource in their strategy and competitiveness.

Moreover, the authors have built a model upon the Liyanage et al.’s (2008) drawing, which has been adapted to the combination of Davenport et al. and Biasutti and EL-Deghaidy’s models.

![Figure 2: The authors' model of Knowledge Transfer on the organizational level](image-url)
Those models are the basic models for any knowledge management implementation. That is why the authors developed their own model upon those processes and steps, they happen anyway when a company is aware of the power of knowledge. Nevertheless, in order to cover the different ways of implementing knowledge management, and to emphasize the need for knowledge management, the authors will now develop how companies could handle knowledge by knowledge sharing policy, as a complementary implementation tool, which justifies why it comes after their own model.

3.4.2 Knowledge sharing policy

In order to strengthen the importance of knowledge management and its processes, some companies set up a knowledge management policy as another way to handle knowledge. Very little research can be found on the effects of a policy on knowledge sharing. Lodhi and Ahmad (2010) have investigated the area broadly. The authors start their article by confirming that knowledge is fundamental for the company performance, which explains and justifies the real need to manage it correctly in order to make it valuable for the organization. Moreover, the authors continue with considering that knowledge sharing is central in the survival and growth of the overall knowledge. (Lodhi and Ahmad, 2010, p.121) The aim of their paper is to examine whether implementing a management policy would affect the knowledge sharing behaviors of the employees (Lodhi and Ahmad, 2010, p.122).

Indeed, they show that employees would be sensitive to policy that would take into account their needs, but also a corporate policy that would promote knowledge sharing within the company. (Lodhi and Ahmad, 2010, p.127) Furthermore, the authors insist on the fact that policies play a key role in controlling voluntary knowledge sharing behaviors on both group and individual levels. This means that organizations should develop policies to promote the importance of participating in the construction of corporate knowledge. In addition to that, Lohdi & Ahmad (2010, p.127) explain that policies were definitely a real advantage for companies that management could rely on to create a culture of knowledge sharing within a company. (Lodhi and Ahmad, 2010, p.128) Lodhi and Ahmad (2010, p.128) state that since policies are in line with the management values, they are the tools to generate the corporate culture and thus, be the starting point for promotion and development of knowledge sharing activities. The correlation between policies and knowledge sharing behaviors is strong, that indicating that managers and the top of the hierarchy can control the knowledge flow as well as the behaviors towards knowledge sharing. This implies that the top management, with the help of the middle management is the starting point to set such policies, to make them worthy and to implement them throughout the whole organization. (Lodhi and Ahmad, 2010, p.129)

Considering that knowledge sharing policies come as a complementary support to the steps described previously, the authors understand those as being important to rule the processes and steps. Indeed, the steps describe the fundamental processes to manage knowledge, whereas policies permit to increase the efficiency of those steps within the company. In the authors’ model, the policies would enhance the flow of knowledge in the loop (see Figure 2: The authors' model of Knowledge Transfer on the organizational level).

After developing the ways of implementing knowledge management, the tools and processes that could be established to make use of the knowledge developed within organizations. As a next step, the authors will now narrow it down to knowledge transfer and knowledge sharing, the linkages between them and why it is important to have such process.
3.5 Knowledge Transfer and Knowledge Sharing

In this part, the authors will develop the concepts of knowledge transfer and knowledge sharing and demonstrate the relation between them. Knowledge transfer has to be considered as being the whole process of back and forth movement between the sharer and the receiver, so the sharing with the feedback movement. On the contrary, knowledge sharing has to be understood as a one way movement only, being the giving part from the sharer to the receiver.

3.5.1 Knowledge Transfer (KT)

Firstly, the authors want to provide the definition of Liyanage et al. (2009, p.122), who adapted the definition of Christensen (2003): “Knowledge transfer is about identifying (accessible) knowledge that already exists, acquiring it and subsequently applying this knowledge to develop new ideas or enhance the existing ideas to make a process/action faster, better or safer than they would have otherwise been. So, basically knowledge transfer is not only about exploiting accessible resources, i.e. knowledge, but also about how to acquire and absorb it well to make things more efficient and effective.”

According to Argote & Ingram (2000, p.151), knowledge transfer describes the procedure how knowledge that is acquired within one situation is applied to another. However, considering the concept of Chen et al. (2012, p.111) it should be included that two interdependent processes have to be mentioned: “the sharing of potentially useful information by the source; the feedback of relevant and useful information from the receiver to the source”. This is seen as a factor to enhance KT. Clearly, the transmitted knowledge needs to be interpreted by the receiver. Furthermore, the source of knowledge can observe how it is interpreted, contextualized and assimilated by the receiving person. This feedback can support the source to refine the own knowledge and by this, the way of transferring can be done more effectively by adapting the content of knowledge. What needs to be mentioned at this stage is that the participants should bring the requirements to understand the knowledge, and most importantly it that they are able to receive and understand the transferred knowledge in the same way as the sender has intended. (Leppälä, 2012. p.635) One way of measuring knowledge transfer is to see how much change in knowledge or performance has occurred. (Argote & Ingram, 2000, p. 152)

There are several ways to transfer knowledge between individuals and across organizations, e.g. through apprenticeships, expert networks and by codification. As already discussed, tacit knowledge can be transferred, if it can be made explicit before. Based on this discussion, this procedure can be categorized into four principles: socialization, externalization, combination and internalization (Nonaka & Takeuchi, 1995, p.72)

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Figure 3: The steps of externalization of knowledge (Nonaka & Takeuchi, 1995)
Gera (2012, p.258) commented on the steps of Nonaka and Takeuchi (1995), that the internalization takes place by learning and a frequent replication of specific tasks. Further, it is described that the transferring from tacit to tacit knowledge can only reached through personalization and/or socialization between experts and novices. Externalization of knowledge is achieved through Connection of sharing and the transfer of knowledge.

As demonstrated in the model (see Figure 2: The authors' model of Knowledge Transfer on the organizational level), the authors of this thesis consider the knowledge transfer process as being the total movement, and the knowledge sharing one as only half of it. As can be interpreted from the model of Nonaka and Takeuchi (1995), the sharing is just one side of the coin. Thus, the authors will now focus on the knowledge sharing part. Transferring deals with how the shared knowledge is transmitted to the receiver (Argote & Ingram 2000, p.151) whereas knowledge sharing describes the spreading of knowledge (Azudin et al., 2009, p. 142).

### 3.5.2 Knowledge Sharing (KS)

Small and Sage state that knowledge becomes a value for the company as soon as it is shared and distributed among the company (Small & Sage, 2005/2006, p.155). The authors acknowledge that one of the issues in KM is the knowledge sharing, how to make it worth, how to handle the flow of knowledge and how to exchange knowledge.

The process of knowledge sharing presumes, as every other sharing process, that a resource is given by one party and received by another. Chua (2003, cited in Azudin et al., 2009, p.142) furthermore adds that “it is the process by which individuals collectively and iteratively refine a thought, an idea or a suggestion in the light of experience.” Knowledge sharing can appear in several forms. Another aspect that should be considered is that sharing might arise the attention of people who are willing and able to help, if the person him/herself is unable to provide a solution. (Azudin et al., 2009, p. 142)

In their article, Marks et al. aim at showing the importance of having common social value. As well as being encouraged by management or having a feeling of belonging to the company to enhance and make of sharing knowledge a success by discussing several major factors (2008, p.62). Firstly, they advocate that as there are free riders for public goods that do not wish to participate in its construction, there are some individuals not willing to share their information through the company knowledge management system. A factor that the authors point out as affecting this phenomenon would be the managerial prompting, meaning that managers could communicate a lot about KS in order to affect the employees’ behaviors. Another factor is the group identification. It creates alliances and a feeling of loyalty to the company that would motivate and reassure employees when contributing to the overall knowledge. The third major factor is about social value orientation, which means that employees can be individualist, collectivist or competitors. Those traits would affect the way they perceive their contribution to share their knowledge. (Marks et al., 2008, p.62) This is supported by the theory that Nonaka and Takeuchi (1998, cited in Small & Sage, 2005/2006, p.158) have developed that establishes the creation of knowledge steps. According to them, sharing knowledge is the first one and it occurs in the socialization, externalization and combination phases. This implies that knowledge is majorly shared at the individual and group levels.

When conducting their study, Marks et al. realized that the most affecting factors were managerial prompting as well as the organizational culture that would positively influence the
amount and quality of the knowledge shared by the employees (Marks et al., 2008, p.65). Another perspective that can be taken into account is introduced by Azudin et al., stating that it allows a growth of knowledge in order to achieve competitive advantage, staff turnover can be handled easier and it increases the knowledge of the company about what it knows. Additionally, they admit that around 50% of the knowledge from five years ago is outdated. (Azudin et al., 2009, p. 142)

3.5.3 Evaluating the benefits and challenges of KS

In his article, Landaeta (2008, p.29) aims at establishing the potential effects of knowledge sharing across projects on the performance of a company. The author states that knowledge is one of the key project capabilities that would permit companies to handle their evolving environment (Landaeta, 2008, p.29). He shows that KM in projects relies on policies, tools and processes to be put in place in order to make the knowledge useful and a real asset for the company. Indeed, those tools and processes help managers to create, develop and share the knowledge developed from one project to another. (Kotnour, 1999, p.34) In fact, Landaeta points out that the challenge is to be able to use proper knowledge for a project in order to foster the learning process. If a company manages to enhance its learning capability, this would help the company to increase its performance (Noeoka, 1995, cited in Landaeta, 2008, p.29).

In fact, Pavlack (2004, cited in Landaeta, 2008, p.30) stated that every new project starts with a lack of competences, a lack of knowledge; hence, the importance of processing knowledge from former projects could be helpful to generate new knowledge (Kotnour, 1999, p.35; 2000, p.395). Kotnour showed that companies would need a knowledge management system that would be a tool for managers enable them to share and transfer knowledge within a project but as well from one project to another. He goes even further when explaining that implementing a system would allow the company to measure the impact of the use of knowledge on the performance (Kotnour & Landaeta, 2005, cited in Landaeta, 2008, p.31). Other authors have also shown that the knowledge shared in companies can be both through formal and informal networks, even within a knowledge system (Hansen, 2002, p.233). This means that a challenge would be to maintain and develop mostly the direct networks to enhance and facilitate knowledge sharing through the system. As demonstrated by Hansen having many indirect networks could be a factor for reducing the positive impact of knowledge upon performance. (Hansen, 2002, p.235)

Landaeta (2008, p.35) concludes that knowledge sharing can have a positive influence on the performance in projects, but that there were as well some factors that could reduce this impact or could even be a risk. One factor reducing the positive impact of knowledge could be time; employees involved in the project might lack time to contribute to the sharing of knowledge. A second factor is that members of the project can feel that they do not have that much to share, that their knowledge is not of utter necessity, so they do not put enough effort on sharing their knowledge. (Landaeta, 2008, p.36) The author explains that this feeling might occur because members involved in the project know how to do it; they do not perceive the necessity to participate in the transfer. This issue raises questions about the amount of effort to be put into sharing. Moreover, Landaeta reveals that dedicating too much effort on sharing could undermine the effort dedicated to the project itself. Hence, in order to maximize the impact of knowledge sharing, one strategy is to only take highly motivated people to be sure they would be willing to contribute and perform on both the project and the transfer of knowledge (Landaeta, 2008, p.36). The author highly emphasizes the importance of having a committed leader as well as motivated members, and then the sharing would be facilitated.
Furthermore, another strategy to minimize the negative impact would be to assign only a few member of the project to the knowledge sharing task. (Landaeta, 2008, p.36)

3.6 **Knowledge sharing barriers and motivators**

In this part, the authors will focus on the sharer, the hindrances or motivational influences that the employee can face when participating in knowledge sharing. Moreover, the authors will embrace organizational, technical as well as individual levels because it is important for the field of study to acknowledge that individual factors are not the only ones to have an impact on the knowledge sharing process. As a consequence, the authors will develop the individual level further since it is their area of investigation and their research interest.

3.6.1 **Motivators**

Concerning the employees’ motives to accept to share their knowledge, Small and Sage (2005/2006, p.161) confirm the issues that Santos et al have raised and argue that a successful knowledge sharing relies on organizational as well as individual factors. The organizational factors are given as being the roles, the processes, culture and the physical environment; the individual factors are the direction, means, ability and motivation. Those factors would need to be fostered in order to enhance and facilitate the sharing of knowledge within the organization. Having a strong policy on KS with lot of tools available among other things would help the employees being aware of the importance of contributing to the organizational knowledge. (Small & Sage, 2005/5006, p.162) Galia (2008, p.56) strengthens the argument that the company culture is essential in knowledge sharing. In addition to that, Huysman and de Wit (2004, cited in Small & Sage, 2005/2006, p.163) have identified several practices to make knowledge sharing more efficient and easier to contribute to. Other have found that the feeling of belonging to the company was one of the key aspect for employees to be willing to participate in the process (Liao et al., 41, cited in Small & Sage, 2005/2006, p.163-164). Thus, a strong focus should be put on the atmosphere and the relationships within the organization in order to avoid a failure.

Reid (2003) also adds that developing a sharing culture should be a main focus of knowledge management policy. Fukuyama (1995, p.26) stresses the fact that trust is considered as being a highly influencing factor since it would establish a relationship based upon honesty and cooperation between individuals that would be prone to accept sharing their knowledge. Wickramasinghe and Widyardatne (2012, p.229) emphasize this aspect stating that the correlation between trust and sharing behaviors was found to be high. Moreover, Hall (2001, p. 142-143) has outlined another leverage to enhance employees to share their knowledge, a system of reward, whether they are monetary or not. The employees could be motivated by an increase in their salary or bonuses if they are looking for financial rewards; or employees could be guided by the willingness to get promotion or get a better job security.

Galia (2008, p.58) stresses the importance of interdisciplinary teamwork. It facilitates the cross-functional communication, enhances the involvement of the individuals and supports the serving of strategic aspirations. Arundel et al. (2008, cited in Galia, 2008, p. 58) also highlight the importance of job autonomy, which makes employees’ understand the business from various perspectives.
3.6.2 Barriers

When talking about barriers in knowledge sharing, there are three main perspectives: organizational, individual and technical barriers (Sharma et al., 2012, p.36; Riege, 2005). Many authors (Sharma et al., 2012; Foss & Pedersen, 2002; Santos et al. 2012) have discussed those. However, even though the organizational barriers have an impact on individuals, the focus of this thesis is on the individual level, meaning the intrinsic factors that influence an individuals’ behavior. Therefore, the authors will discuss those more detailed.

3.6.2.1 Organizational barriers:
Santos et al. (2012, p.27) state that managers, as well as project members, can face several types of barriers when dealing with knowledge sharing. Indeed, the authors advocate that the main barriers can derive from a matter of codification. It can also be due to an inadequate information technology which implies that the employees would face issues when sharing their knowledge or that the system could not process what the employees put in. (Santos et al., 2012, p.27) In other words, the fact that managers do not foster and encourage the employees to contribute to knowledge sharing plays an interesting role. Managers would have to be involved in the process actively and would have to promote a knowledge sharing behavior among the employees to get them aware and proactive in this process. (Santos et al., 2012, p.36) Sharma et al. describe the managers’ resistance towards employees making mistakes as the biggest barrier of knowledge sharing. (2012, p.39)

Riege discusses several organizational barriers. For example, the lack of a clear goal and strategy, embedded in the corporate culture. Clear rewards and recognition systems would also enhance KS and motivate. The company also has to provide an appropriate physical work environment, so that sharing practices are effective. (2005, p. 24-27)

3.6.2.2 Technical barriers:
The second major barrier revealed is the inadequacy of the IT system. Apparently, the employees would argue that the system itself makes it even more difficult to share their knowledge; the tools put in place would not be user friendly, so this would discourage employees to contribute the overall knowledge. (Santos et al., 2012, p.27)

In this context, Riege (2005, p.29), argues that there is a doubt that technology can act as a facilitator to encourage and support KS processes. However, in this case, the key issue is for companies to choose the most appropriate technology that suits both, people and the organization. He raises main issues about the lack of training, support, integration, information or expectations towards the IT-systems and processes.

3.6.2.3 Individual barriers:
Santos et al. furthermore argue that some barriers can also derive from the individuals themselves. Meaning that the employees might not have the habit of sharing their knowledge, or it could be due to the fact that colleagues do not do so either, so there is no initiative; (Santos et al, 2012, p.27) Szulanski & Jensen (2004, p.353) argue that some of the participants simply lack motivation for knowledge sharing. Moreover, Pierce et al. (2003, p.300) explain that individuals develop a sort of psychological ownership over their knowledge, skills and competencies. In fact, people would be rather reluctant to share this ownership because they would perceive it at a loss of control over their own property, their individuality.
Another reason that hinders employees to contribute to knowledge sharing could be the lack of time or resources to handle the process. (Santos et al., 2012, p.27; Riege, 2005, p.23) The authors also mention the employees see as very time consuming the codification process, to manage to write correctly so that the knowledge can become useful for another project in the future. Furthermore, the employees add the difficulty of knowing to what degree knowledge can be codified; how far they can break down their knowledge to make it understandable and processable for the system and thus, for other employees. (Santos et al., 2012, p.35)

Riege (2005, p.23) points out the trust factor. If there is a lack of trust between colleagues, this would result in being more reluctant to share their specificities. Sharma et al. (2012, p.38) argue that one cannot talk about KS barriers, without considering trust. People are more and more willing to share, when they know that their knowledge will not be misused.

Authors like Bartol and Srivastava (2002, cited in Santos et al, 2012, p.29) raise the problem that some employees would take advantage of their knowledge. This is also supported by Sharma et al., (2012, p.38) who state that if there is more emphasis put on the team than on the individual, KS activities are avoided and the knowledge remains tacit. Indeed, they discover that employees would use their knowledge as levers to over other employees. This is supported by what Ladd and Ward (2002, cited in Santos et al., 2012, p.29) say, meaning that employees would be willing to keep their knowledge in order to cope with the internal competition. Considering competition among employees, job security is an important matter as well (Riege, 2005, p.23). Skok & Tahir (2010, cited in Sharma et al., 2012, p. 39) state that the uncertainty of the objectives and intentions of the top management about KS, reduces the activity.

Another barrier that could occur is the matter of national culture or ethnic background, values and beliefs. Employees, who are lacking a social network, might feel hampered to share knowledge, since social networking encourages “capturing and reusing skills and experience of internal staff members in order to increase competitive advantage”. (Sharma et al., 2012, p.39)

After conducting their study, Santos et al. (2012, p.34) confirmed that the major constraint was the codification process. Indeed, the authors explain that the problem derives from the fact that employees face difficulties to know how to structure, describe and write our fill document about the knowledge they are supposed to share. Riege (2005, p.23) also lists poor verbal and written communication skills as a barrier.

Riege (2005, p.23) states that age differences, national culture, gender differences, different education levels, as well as, different experience levels can influence the willingness of employees to share. Leinonen and Bluemink (2008) acknowledged that individuals would tend to evaluate the knowledge shared by others and thus would share their own knowledge with regards to how they interpret and perceive the value of the given knowledge. Leibowitz (2002) goes even further when stating that individuals would even count the number of postings or documents submitted by colleagues or the amount of reports and contribution of new ideas or improvements to adjust and share their knowledge in adequacy of what they receive and use.
3.7 Summary

Throughout the theoretical framework, the authors have shown how concrete and crucial it is for an organization to handle knowledge from a strategic perspective. Moreover, the concepts of knowledge, whether it is tacit or explicit, have been developed in order to make the reader understand the basic concepts. Then, the authors decided to develop their own model of knowledge transfer upon two crucial approaches of the knowledge management processes. Within this model, two concepts arose, being knowledge sharing and knowledge transfer. Those concepts have been further explained, as well as the connection between those two. Finally, the authors discuss the potential motivators and barriers within knowledge sharing.
4 EMPIRICAL FINDINGS

By following the provided themes and categories as described in the methodological chapter (see Table 1: Questions allocated to the categories), the findings of the phone and e-mail interviews will be presented. However, before giving the results, Alstom France and the investigated team will be introduced.

4.1 Company background

Alstom is a French organization, which is one of the world leaders in transport infrastructure, power generation and electrical grid. The group is settled in more than hundred countries, and it gathers around 93 thousands employees all over the world. To give the reader a mere idea of Alstom’s businesses, in 2012/2013, the group had a turnover of more than 20 billion euros. Alstom is known to the world leader in high-speed transport, but the group is also known for its contribution in energy production. Indeed, Alstom works with nuclear, oil and coal to produce energy, but the company also puts a lot of effort to produce clean energy from renewable sources. Alstom strives to offer innovative solutions to its customers, which are environmental friendly. The Renewable branch consists of six fuels being hydro, wind, geothermal, solar, biomass and ocean. (Alstom webpage, 2013)

The company states three main values: trust, team and action. Trust is built on responsibility that each decision maker has; the delegation of authority and Alstom also connects this with the importance of each employee. All of it is based on the openness of each individual within the company to ensure transparency. A focus on teams and collaborations with customers and partners builds the second main stand within Alstom. Last, but not least, a strategic mindset, combined with customer care builds the third. Leadership and clear priorities, as well as a speed of execution included. (Alstom Values, 2013) In the context of knowledge sharing, these values are key elements since they constitute the basis for a successful knowledge sharing process, as developed and explained deeper in the literature review. In fact, it the group is highly aware of the importance and crucial role of knowledge to survive since they have settled a policy that rules the knowledge transfer within the organization. Indeed, this policy is explained and detailed in the so-called “Knowledge Transfer Handbook” (KTH), which is available for the employees on the intranet. The authors of this thesis had the privilege to get access to it in order to understand how Alstom sees and handles the knowledge the group develops throughout all the projects over the world. In the KTH is settled all the processes and guidelines for the employees to follow in order to store the knowledge and make sure that it remains in the company.

4.2 Introduction of the team

The team that has been examined consists of 20 people, divided as such, seven managers, ten employees and three trainees. Out of those 20 persons, 16 work at the same place, in the same offices in France.
As the communication team, the employees have to be able to cover different areas like finance, HR, products themselves, ongoing projects, events. Indeed, since they are responsible for both internal and external communication, they have to communicate upon the ongoing projects all over the world for every sector internally so that within the organization, employees know what Alstom is doing. Many events organized by the communication teams are project based. Indeed, the communication team collaborates with the R&D teams to develop the appropriate brochures and release about the products. The communication team responsible for the internal matters is also in charge of distributing the new organization charts as well as the new arrivals. The internal team is also in charge of spreading and promoting the strategy within the company. In addition to that, the external team has to develop brochures, visuals and movies to present the products and projects the company develops for both the customers, as well as the Alstom teams over the world so that they know what they are allowed to communicate on those products and projects. The employees are also responsible for organizing events all over the world to meet the customers and to raise the awareness around the world of the products of Alstom. Furthermore, the employees also set up official opening events when a site, a factory opens. The external team is also accountable for the appearance on the mass media and the presence on the social networks.

4.3 The Alstom Knowledge Transfer Handbook

When choosing the company for conducting the empirical research, it was important to find a company that had introduced a knowledge sharing policy. The Alstom group has its own department for Knowledge Transfer, which shows how crucial knowledge is seen within the company. The department has developed a so-called Knowledge Transfer Handbook, which presents the knowledge transfer policy of the group. It intends to improve, develop and facilitate the implementation of local procedure to support the execution of KT. Within that, the company has developed so called “Golden Rules of Knowledge Transfer” which should support successful knowledge transfer. The handbook also provides many arguments, why
having a successful KT process is important for the company. Further, they try to introduce the process of knowledge transfer to their employees with simple figures. So, knowledge transfer process is described as consisting out of a provider and a receiver who both face implications within the process. The whole process is embedded in the Alstom context and the Alstom context is again embedded in the external context, meaning external environment. (Alstom KTH, 2012)

As the authors of this thesis consider knowledge sharing as being part of the knowledge transfer process, thus, knowledge sharing targets technological (new products, service activities) as well as functional/operational knowledge (management excellence), which is necessary to construct fully operational local units, on time in the market area.

Within one sub chapter, the KTH extends deeply on barriers that prevent from an easy and successful knowledge transfer. Thereby, there are advices given to managers how to help their employees to overcome these obstacles. The KTH focuses as well on three angles where barriers can come from, which is identical with the reviewed literature within this thesis: people, organization and technology. (Alstom KTH, 2012)

4.4 The interviews – summary and results

According to the categories defined upon the sub purposes of this thesis, being: knowledge sharing as a strategic resource, the implementation of knowledge sharing and finally, the motivators and barriers of knowledge sharing, the authors will process the interviews. For each category, the authors have defined themes to help covering those categories.

4.4.1 Knowledge sharing from a strategic perspective

4.4.1.1 The importance of knowledge management

When asking the employees about the importance of knowledge management within the Alstom group, several responses had been collected. E5 stated that according to him, it was of utter importance that every employee could access the information he/she needs at any time. Indeed, as he/she said: “But I need to make sure everyone gets the information even if not connected to the Alstom network.” M6 mentions that it is important to consider the function of the department, he/she states: “To be effective in communication you need to have the latest information and access to the historical information thus it is imperative to share”. Therefore, he/she thinks that it is essential to share information. “Within a team you need to have a common level of information otherwise you cannot perform effectively.” Moreover, when interviewing E6, it appears that he/she perceives knowledge management as important because of the role of their department for the company. In fact, he/she explained that since they were the main department to gather all the information about the ongoing projects over the world, “if the communication team does not give the info it has about the projects themselves, how can we expect the rest of the company to be aware of what the group does?” Nevertheless, M6 sees a difference between the engineering teams and support functions [HR, Communications, Legal]. ”In the engineering teams they are better promoting this approach as it is part of their way of working. In the support functions, this is not as well established. Here it really depends on manager’s approach. Luckily in my team my manager shares information.”

4.4.1.2 Tacit and explicit knowledge

When asking the first question, the authors wanted to introduce the interviewees to the topic and see how they understand knowledge. E6 started with explaining his/her job, and the major...
thing to know about it. E4 explained that he/she shares knowledge with his/her “peers from other part of the organization when it comes to expertise and experience sharing.” Even though E4 does not name it as such, expertise and experience constitute elements of tacit knowledge. Moreover, E4 states that he/she help his/her colleagues by providing them with illustrations, which can be movies or pictures. Contrary to experience and expertise, those latter relate to explicit knowledge.

4.4.1.3 Employees’ perception of Knowledge Sharing

Many employees state that they view knowledge sharing as important in order to increase the efficiency within the team. For example, E4 feels that helping colleagues is normal. Indeed, the employee developed upon how he/she perceive his/her own role within the team. When talking about the potential barriers to share his/her knowledge, E4 thinks that transparency is the most important issue when working in a team. He/She even answered that “working as a team player is a must for me”. In the interview with T3, when the authors of this thesis asked the question, it appears that the trainee perceives knowledge sharing as being normal and natural, he/she answered very easily to that question. As T3 said several times “I help a lot my colleagues as much as I can”, but he/she also added “it feels very natural to do so”. In fact, T3 developed upon how he/she perceived the environment and the atmosphere within the team, he/she qualified it as “very friendly atmosphere and a helpful environment” and he/she thinks that it helps to share his/her knowledge with the other members of the team. The authors asked the second question to E6 about the importance of knowledge management for him/her as well. He/she said that it is so obvious for the employee to share his/her knowledge with the team, but also widely with the rest of the company because as he/she said “If the communication team does not communicate and behave as role model for the rest of the Alstom group, well... clearly, nobody will!”

When asking E5 about the perception of the concept of knowledge sharing, he/she answered that for him/her “It’s about making sure knowledge is not lost from one generation to another, transferred locally when needed, etc. So knowledge management is a subject taken very seriously at Alstom and we do have a Knowledge Transfer Handbook issued by our Knowledge Transfer department.” Further, he/she quotes the VP [Vice President] for Knowledge Transfer: “Improving our capability to transfer knowledge in our global network in order to build fully operational local units on time, where the market is.” E6 gave the authors another perspective on the topic. Indeed, E6 developed that one should not chose to work in the communications sector if he/ she is afraid of sharing, and that when working in a company, an employee must share knowledge, whether he likes it or not. Furthermore, E6 stated “The exchanges are by all the channels you mentioned [phone calls, e-mail, chat, meetings, shared drive, intranet, coffee break, etc.], but more often by emails to put everyone concerned in the loop, as well as phone calls or chats and so on.” In contrast to this, M6 discusses that the matter if knowledge sharing would not reduce individuals’ unique skills, since “Not having access to all the relevant information has an important impact on the quality of decision-making. If I don’t have access to the relevant information I find it more difficult to make the right decision.” T2 as well perceives that the exchange of “info is important so we can achieve our targets”.

4.4.2 The implementation of knowledge sharing

4.4.2.1 The knowledge sharing processes

The authors asked questions about how the employees deal with the processes of knowledge sharing and how they do it on a daily basis. E6 explains that as she/he is working for the external communication, he/she is one of the first to get top-notch information. Then, he/she
gave the implications that it triggers and what he/she does with such information, he/she said: “For this reason, in addition to the validation process we have at Alstom concerning the press release, I share the news with internal communication team, but also with the corporate communication teams and with the rest of the external communication team of course.” The employee even added “In addition I built up a package of tools such as press kits that I use to inform journalists how to answer to questions and what can be released.” The approach of M6 is quite different because he/she focuses more on the differences between department and the associated processes of knowledge sharing. So he/she says “Within Alstom there seem to be sharing processes on different levels, dependent on the department: For event reports we use SharePoint to store the information. Unlike a function like engineering our knowledge sharing is less formal. Engineering teams have formal processes for storing, numbering and sharing information.”

4.4.2.2 The Knowledge Transfer Handbook

Considering that the KTH is a main point within the implementation of the knowledge sharing strategy, the authors of this thesis were highly interested in the perception of it. Surprisingly, it appears that E4 never heard about the handbook. He/she even said that the authors learned him/her its existence and that he/she will seek for it to read through it. As he/she said “I wasn’t aware of the existence of such handbook. Will go and look at it when finishing filling the questionnaire”. An when concluding the interview, of course the employee could not answer the last question since it deals with the Knowledge Transfer Handbook and how the employee perceives it. T3 acknowledged that he/she was not aware of Alstom Knowledge sharing policy. He/She argued that he/she presumes that to his/her position, it is not necessary to know about the handbook, especially as a trainee if the manager acts as his/her role of model. T3 said: “No, I’ve never heard about, but I’m a trainee, so the purpose of the job does not require knowing it maybe, especially because the managers show how to behave and tell me how to work.” Finally, the authors conclude with the last question, the trainee said he/she would look for it, just for himself/herself to know about that policy. However, T2 is aware that there are some programs and that information about these had been sent out via e-mail by the president of the sectors. When finishing the interview with E6, in contrast to E5, he/she was not aware of such a policy or such a handbook. Indeed, he/she explained that he/she was looking for the handbook on the intranet and on the wiki links he/she had access to “Sorry girls, I’m still listening to you, I’m just digging into all the links and material we have to have a look at this KTH as you call it.”

After asking whether the employees were aware of the existence of a policy within the Alstom group, the authors asked to the employees how they heard about that policy and how they perceive it in order to know whether the policy is seen as useful or not. Hence, according to E5, information about the KTH had been spread through e-mail to the employees. When talking about the perception itself, he/she states: “At first glance, I considered it was more targeted to people within the businesses more than the ones within support functions. But some principles actually apply to everyone within the organization, so it’s quite instructive, giving best practices of working.” As E5, M6 has learnt about the KTH through e-mail notification, as well as by colleagues involved in the knowledge management programs. The manager’s opinion about the KTH is that “it provides a good framework for the engineering teams but is a little heavy for the support functions.” T2 admitted that she did not read the whole book, “but it appears to have a good methodology”. In fact, E6 first answer had been: “well, I can’t really talk about something I was not even aware of.” However, as soon as he/she finishes his/her sentence, he/she found the KTH and opened it. Then, he/she concluded saying “Oh, that’s a big piece of work to read! More than 200 pages, well, I’ll try to have a look to it, but just at first sight, seems quite a heavy doc.”
4.4.2.3 Knowledge sharing practices

When interviewing the employees about what and how they share, T2, as well as M6 state that they always check beforehand whether there is something similar available, before starting to do a presentation etc. When talking to E4 about knowledge sharing with colleagues, she mentioned that she perceives requests from colleagues as being easier than being forced to go through the whole process to get the information.

Many answers could have been collected in the area of tools used, since they are obviously perceived as an important factor within knowledge sharing. T2 explains that she does weekly reports in a word document, which is saved on the shared drive. A similar answer had been collected from T3; the only tool he/she uses to share knowledge is the shared drive. He/she said that he/she does not know any other tool, but he/she specified that considering her job, it is not necessary to know other systems, at least for now: “I guess there are other ways as well, but, as a trainee, I don’t necessarily have the use of those”. Indeed, E4 uses it as well, on which he/she saves all his/her documents (“validated or not”). Moreover, she/he feels that the information available on the intranet is outdated and should be refreshed more regularly. E6 explains that “These tools [e.g. press kits] are shared on the shared drive and I also transmit it to my media colleagues in the countries to make sure that the communication teams all over the world are on the same page and follow the same model or pattern.” One part of E5’s work is to do reports on projects, which have to be done regularly to internal stakeholders. He/she states that they are “done via emails and attachments” or “When there is TeamSpace created for a specific project, then I upload documents to share and only send a link. M6 states that: “For communications we need to access financial data, market trends, product data, employee information. I always share the data I have with my colleagues. For example, I have created a folder on the shared network drive, which contains all market reports I receive, and I e-mail the team to let them know that there is a new report all team members can access the drive.” Moreover, he sends out an e-mail that a new report is available. Another possibility of knowledge sharing is pointed out in using the “SharePoint for sharing the events we will attend in a year and also for budget information”. In this context, T2 also mentions that SharePoint is used for budget and event information. When asking about his/her sharing behavior, E5 seems to be quite active. He/she explains that sharing expertise and experience with other parts of the organization is done through a so called “TeamSpace” on a SharePoint.

Besides these more or less formal sharing facilities, M6 mentions “a number of informal knowledge sharing tools like morning coffee discussions, magnetic wall next to the coffee machine and also a weekly 15 minute call on a Monday to go through the weekly report, which gives all people the chance to ask questions on the topics in the report.” Moreover, E4 prefers phone calls and informal ways of sharing. For informal exchanges, E5 uses the phone as well, whereas, according to him/her, formal meetings are held over LiveMeeting sessions. T2 describes weekly team meetings as another important point in the embedded knowledge sharing culture. When interviewing M6, he/she admits that not every department sticks to the KTH: “For the engineering functions, yes I believe this is true. For other areas, it is less formal so it is more down to individuals. Over the last ten years the importance of knowledge sharing has grown.” Further, he/she explains, “In the engineering teams they are better promoting this approach as it is part of their way of working. In the support functions, this is not as well established. Here it really depends on manager’s approach. Luckily in my team my manager shares information.” In addition to that, T3 also links that aspect to the way people communicate he/she perceives as a bit informal sometimes. When asking about regular formal exchange meetings, M6 answered: “Key information like financial data is shared on a periodic basis other information can be shared on a more ad-hoc basis.”
The motivators and barriers of knowledge sharing

Motivators

By having a knowledge sharing strategy, Alstom has laid the foundation and obviously sees the importance of this issue. When talking about the organizational level, E6 replied that the group was helpful as well, especially within the communication department, according to him/her “Communication people yes [the organization encourages the communications teams for sure], the other parts of the company it depends but we encourage and the management of the company see that communication is “le nerf de la guerre” so it’s important for them”. (“Le nerf de la guerre” is French and means that communication is a key point for the company.) Similarly to E5’s view on the manager’s role is the perception of the support of the Alstom group, the response was clear: “Yes both from a management (encouragement to share, sometimes part of the objectives) and from an operational point of view (teamwork naturally drives need for sharing)”

Even though M6 is in the middle management, the question about the manager’s role seemed to be still appropriate. His/her first response was: “Managers have an important role to play” As the authors of this thesis could conclude from the literature, the role of the manager is seen as quite important, therefore T3 has been asked the fourth question as well. Namely, how the trainee perceived the behavior of his/her manager, within this context he/she explained that they have a good relationship and that his/her manager was very willing to help him/her and to teach him/her many things. As he/she said: “he was always very attentive to what I could bring to the company. He taught me things in order for me to gain autonomy and simply to learn.” He/She explained further that he/she felt very grateful for the attention the manager paid to him/her, and thus that “it would have been unfair and rude not to do so.” talking about sharing his/her knowledge and help. When talking about the support of the management, E5 states: “a key factor of success is how you make sure it is shared (when relevant of course) and this is something reinforced regularly by my management.” When E6 had been asked about how the employee perceived his/her manager in regards with knowledge sharing, he/she answered that, in fact, that his/her manager was helpful because he/she was attentive to his/her employees. Further, he/she explained “my manager really is a role model when talking about knowledge sharing. He really encourages us to report what we do so that there are traces on the work accomplished and that makes it available for the rest of the team at least.” Moreover, he/she added some details of how he/she perceives this role “This helps them not to be too much in what we usually call “micromanagement”. T2 sees the managers as very open and helpful since he “shares the latest information with me and explains detailed reports”, she states.

One of the objectives of the interview was to outline the internal factors that influence the employees’ willingness to contribute to the overall corporate knowledge. When moving to the third question about potential barriers that could be obstacles to share his/her skills, experience or knowledge, T3 took a second before answering. He/She repeated that evolving and working within a friendly and helping environment was very helpful to share the knowledge. Moreover, the authors asked if he/she hesitated to share his/her knowledge with the rest of the team. The trainee answered without any doubt that he/she did not feel any threat to share his/her knowledge. He/She explained even further saying that, on the contrary, he/she would be more likely to express pride to, as he/she said “I don’t fear sharing my knowledge. Actually, that makes me quite proud instead. It may be due to the fact I’m a trainee, so I don’t feel the pressure of keeping my job”. Then, he/she realized and acknowledged that it was even truer with some people, “Yes, there are persons I’m more prone to share my knowledge with”. Then, he/she explained with who and why, he/she
explained “First, my boss because as partners, he has to know what I do, how I manage the projects I’m responsible of and how far I get. There are also two main employees I share more because of the projects I’m assigned to, I need to work with them”. But after, he/she completed his/her statement “Had I worked on other projects, it would have been other employees.” When interviewing E4, it appears that the motives were not the same; it seems that the motives are less linked to emotions. Indeed, when talking about the potential barriers to share his/her knowledge, E4 thinks that transparency is the most important issue when working in a team. He/She even answered that “working as a team player is a must for me”. Moreover, she/he adds that because transparency is compulsory for him/her, she/he does not have the impression to lose any value when sharing his/her knowledge “knowledge sharing will not reduce my skills”. In addition to that, he/she raises as well the concern of coordination, knowing what the others, whether they are from internal or external team, are working on would increase the efficiency. Indeed, she/he said “knowing what each other is doing in the team would be more important from one internal to another external team. Sometimes, synergies could be better prepared in advance when speaking to one another earlier in the process”.

4.4.3.2 Barriers

Another major point within the interview guideline were questions about perceived barriers. When conducting the interview with E6, when the authors asked the third questions about the barriers, the employee answered quickly at first saying “Of course, if there were no barriers it would be too easy, and I wouldn’t be paid as much as I am!” Then the employee started to explain why giving such an answer. Indeed, he/she justified why he/she perceives that there are some barriers. According to him/her, there are several explanations, as he/she states “Some information is confidential so you can share it with only few people but you know it because if you receive any questions from outside the company you must be prepared. This is why we prepare position paper or statement paper. Sometimes in the business people are not keen on sharing their knowledge because they feel that they are more powerful if they are in the happy few to know”. From a strategic point M6 answered that “Market data is not shared as widely within the company. General trends are available but detailed reports are kept for strategy, marketing and sales teams. The reason this information is shared less is that it dictates our strategy and thus is important that it remains within the company.” In the interview with T3, the authors asked as well about the organizational encouragement, participation and role within the KS process, he/she could not answer as precisely as he/she wanted. As he/she is a trainee just for a couple of months, he/she did not feel able to perceive the organizational view. Thus, he/she suggested “the way the employees behave reveals that it seems that Alstom is supportive or helps the employees to, it seems that it is part of the job.” This question went quite quickly since the trainee did not know what else to argue. During the interviews, some technical barriers had been identified. For example, E4 states that “they [some of her colleagues] find the system not as reliable as it should be”. Moreover, T2 explains that “the intranet has lots of information but is sometimes difficult to find that data”.

The authors wanted information and explanations about the potential barriers that employees might perceive; language appears to be one of the major barriers that employees have to cope with. Indeed, when the authors continued and asked about the language when sharing his/her knowledge. The trainee T3 is French, but he/she speaks quite good English. He/She answered that he/she does not perceive the language as a big obstacle, but he/she left room for improvement “I don’t feel that language is a real problem, even if everything is in English. But maybe I’m not aware of it.” He/She justifies that by the fact that his/her manager is British so that it helped him/her a lot to feel confident about. However, strangely, the so-called manager M6 felt some difficulties when talking about language because most of the
team is French and talk quite a lot in French together. He/She is English and states that “Language is a barrier to a certain extent, however most information is shared in English.” The trainee T2 experienced the same issue because he/she is English as well, and as he/she said “Most reports are in English; however the press review is in French which causes some issues”. Moreover, E6 acknowledged that language can be a difficulty; he/she states “Language and cultural aspects are sometimes barriers but everyone is supposed to speak and exchange in English in an international company such ours.”

E5 had been asked if knowledge sharing would endanger his/her unique selling position within the company/department, her/her answer was very short, but obviously expresses his/her opinion quite well: “Sure, there might be some fear of losing something that makes you irreplaceable but er, come on, let’s face the truth: no one is irreplaceable. So better share than retain information, it’s seen as a quality that could make some people think you’re irreplaceable!” T3 went even further because for him/her, there is no point of not sharing his/her competences or skills “I have no use of hiding the little knowledge or skills I have”. E6 even states that for the reason of competitiveness some information concerning some projects in other countries knowledge is not shared: “Sometimes the project team does not give us the info as fast as it should be, so that we would be able to communicate about.” Moreover, he/she explained that, he/she does not feel knowledge sharing as such, and that on the contrary, he/she had to share especially when considering his/her position “From my side sharing my knowledge is not reducing my personal skills it is part of my job.” From a management perspective, M6 has a different approach to the matter if knowledge sharing and if it would reduce individuals’ unique skills, since he/she states that “Not having access to all the relevant information has an important impact on the quality of decision-making. If I don’t have access to the relevant information I find it more difficult to make the right decision.”

When talking about the potential obstacles to share his/her knowledge, E4 thinks that transparency is the most important issue when working in a team. He/She even answered that “working as a team player is a must for me”, However, he/she is lacking support from the management, meaning that “There is space for improvement “. Indeed, he/she had the same feeling and same perceptions when it concerned the role of the organization.

Finally, to conclude on the potential barriers, the authors asked whether the employees think there is information overload or not. When the authors asked to T3 about the flow of information, he/she said “I would not say there is too much information because I just look at the one I need, I don’t take the time to go through everything on the shared drive”. In fact, T2 does not contradict this statement since he/she admits that: “There is lots of information available within the company that can cause difficulties when trying to find the latest information on certain topics (e.g. the intranet contains presentations which may not be up to date).”
5 [ANALYSIS

In this chapter, the authors will proceed to the analysis of the interviews, meaning that the focus now will be on the interpretation of words and the meanings behind the respondents’ answers. In order to achieve the main purpose, the authors will split this chapter into three sub purposes, as already done in the empirical chapter. The authors have decided to proceed in three steps to conduct the analysis in each sub purpose. They will start by explaining the company point of view, which is taken from the KTH on the sub purpose covered, and then they will write about the employees’ perspectives on that topic. Finally, they will discuss this through the glass of the literature in order to build a conclusion on the sub purpose that would permit to generate the new theoretical insight.

5.1 Knowledge sharing from a strategic perspective

5.1.1 The importance of knowledge management

Some authors like Shankar et al. (2013) or Massingham (2010) have developed theories upon the impact of the loss of knowledge for companies, which strengthen the importance of knowledge management. Even if the employees do not use the same designation for the concept as the authors, it can be concluded that employees majorly perceive knowledge management as important. Indeed, some recognize that without knowledge management, the new capacities, new skills, competences and information developed within the group would get lost from one employee to another or from one generation to another. When looking at the theoretical framework, Shankar et al. (2013) view these issues as the most important ones to sustain competitive. When reviewing the interviews, it turned out that the employees recognize the value of knowledge and the use of sharing it within the organization and even more within the communication team, but it also appears that some of the employees do not grasp the importance and the implications of knowledge over the functioning of the company or even its performance. This might be influenced by the role that the communication team within the company plays, namely to share information among employees as well as to external parties. In order to handle knowledge the most effectively, Davenport et al. (1998) as well as Biasutti and EL-Deghaidy (2012) have explained the different steps and processes to handle knowledge management within a company. Those are the necessary and basics to launch and establish an effective knowledge management. From this, it is acknowledged that establishing a knowledge management system or processes are crucial for an organization.

From the company's perspective, which is described in the Knowledge Transfer Handbook, knowledge management is seen through the angle of knowledge transfer. Considering that knowledge transfer is part of knowledge management, in the beginning of the KTH, the director of the knowledge management department of Alstom develops upon the impact of having an optimized knowledge transfer within the company. As a matter of fact, the director explains that an optimized knowledge transfer, and by extension, an optimized knowledge management would have strategic implications on the quality of the products delivered, on the learning curves of the employees and thus on their motivation, as well as effects on the investments done for the knowledge transfer department. This reveals how valuable the Alstom group considers knowledge and knowledge management and it points out that the top management understands knowledge as a strategic resource, and knowledge sharing as a strategic issue for the group. Indeed, Heath (2003) defined knowledge management as being the judicious combination of information technology, culture and the infrastructures to supervise and embrace those, as it was done by Alstom. Heath (2003), as well as Lodhi and
Ahmad (2010) added that establishing policies to handle knowledge management and knowledge sharing was a powerful leverage to reinforce a knowledge management system within an organization. Moreover, both Shankar et al. (2013) and Massingham (2010) put emphasis on the crucial role that knowledge plays in the performance of an organization. Beijerse (1999) stresses the importance of knowledge even more stating that knowledge had become the most valuable resource of an organization. Thus, the Alstom group seems to have understood that when looking at the handbook and how detailed it is. Schulz (2001) developed the fact that a company should make sure that the employees communicate between them in order to pass on the skills and competences from one to another in order to be able to cope with the leaving or move of one of the employees. As E5 stated, the knowledge has to be transmitted from one to another within a company.

5.1.2 Tacit and explicit

When reviewing the employees’ answers, only one, E6, talked about sharing experiences and expertise, which can be linked to tacit knowledge. This could be explained by the fact that the employees are not aware of how to externalize and document their competences and experience. Indeed, Corrigan et al. (2012) said that it was more difficult to externalize that tacit knowledge because of its personal nature and non-verbal form. Moreover, the authors state that employees are not aware of their skills and competences most of the time, which justifies why they hardly document those.

When reading their articles, Awad and Ghaziri (2011) and Corrigan et al. (2012) have defined explicit knowledge as the knowledge, which has been codified into documents, reports. In other words, it is the knowledge that has been externalized. On the contrary, tacit knowledge is the result of experience and individual talent. In the KTH, even though the director of the knowledge management department does not differentiate between tacit and explicit, it is still developed how to cope with procedures and processes, which the authors of this thesis name explicit knowledge, as well as with skills, experience and competences, which is called tacit knowledge. Thus, all the processes, advice and recommendations that the director has written in the KTH for the managers to handle knowledge cover the tacit and explicit knowledge, developed within the organization thanks to the employees. Moreover, the authors highlight that tacit knowledge needs to be stored because it is the one that is most likely to bring sustainable competitive advantage to a company. Corrigan et al. (2012) stress out the fact that companies have to learn how to manage that knowledge, to learn how to share it in order to maintain it within the organization. It is crucial for a company to develop an organizational frame that set and facilitate the sharing of knowledge, whether it is tacit or explicit. In order to do so, companies have to put in place systems for the employees to externalize their skills, experience and competences into understandable documents for the others employees.

5.1.3 The employees’ perception of knowledge sharing

From the interviews, it can be concluded that the employees view KS as a very important aspect within their daily work. E5 talks about knowledge sharing as “It’s about making sure knowledge is not lost from one generation to another, transferred locally when needed, etc. So knowledge management is a subject taken very seriously at Alstom and we do have a Knowledge Transfer Handbook issued by our Knowledge Transfer department”. Mahdi et al. (2011, p. 9924) reflect that knowledge management contributes to gain competitive advantage in terms of the externalization of knowledge and the transformation of individual knowledge to organizational, this theory shows that E5’s statement seems to be influenced by a competitive mindset, considering that he/she also quotes the vice president for knowledge
transfer. From a management perspective, M6 perceives KS as important in order to get the full picture and to be able to make decisions based on the right arguments.

5.2 The implementation of knowledge sharing

5.2.1 The knowledge sharing processes

Some employees explained different established processes, as for example E6 mentioned a validation process for press releases. Hence, M6 admits that there the sharing processes take place on different levels. This statement leads the authors to the conclusion that even though the Alstom group has introduced a policy, processes and the sharing culture are differently embedded within the departments. Within the KTH, the Alstom group describes the processes of KT, but as already mentioned, for confidentiality reasons the authors are not allowed to describe them. However, considering the literature according to KT processes are the key factor how to externalize knowledge (Biasutti & EL-Deghaidy 2012, p.863-864). The two examples mentioned, imply that the employees are willing to share, but also someone who is making use of it, meaning that he/she is willing to receive. The fact that few employees talked about the processes of Alstom may be an indicator that the processes have not been promoted as much as it should. Promoting the processes that facilitates knowledge sharing within a company needs to be communicated among the departments so that the employees know how to use them correctly. Those processes are supposed to help the daily work, thus companies have to spread them throughout the organization to have them implemented.

5.2.2 The Knowledge Transfer Handbook

When asking employees about the KTH, most of the employees have never heard about the introduced policy. However, some of them are aware of KS programs, but they do not know what they imply. As a matter of fact, the KTH is designed for the managers within the Alstom group. Therefore, the managers’ perception of the KTH is from utter importance, because they are the ones communicating the company’s strategy to the employees. The company distributes its knowledge sharing policy through the company intranet via wiki links available for all the employees. As stated by Landaeta (2008, p.29), a policy is one way of implementing or supporting the implementation of KT. The creation of the KTH is part of the implementation of knowledge transfer within Alstom. For confidentiality matters, the authors are not allowed to explain those processes and rules precisely. Since it was introduced on manager’s level, it is not surprising that neither the employees nor the trainee had heard about it, even though it is available for everyone. As long as the managers are able to act as a role model and communicate the main issues of the KTH and thereby support the employees in transferring, there is no need to distribute it through all levels within the hierarchy. Further, the way the KTH is written, is quite abstract and it would be necessary to adapt it in case of distributing on the other levels. Moreover, in the case of Alstom, the role of the managers are more than crucial, since they are those who have share and communicate the strategy and its implications among the employees. As mentioned by M6, especially in support departments, it is highly dependent on the manager if KT is working or not or how it is done. The Alstom group has clearly decided to communicate about the knowledge sharing policy mainly through managers, one explanation for this may be the wish to keep the employees focused of their jobs, without feeling any pressure, but also to push the managers to develop and explain the objectives to his/her team. Since, there seems to be a very good relationship between the managers and the team, a sharing culture can evolve easily. As can be concluded from the interview, the communication department has a sharing culture; the authors of this thesis could put that close to the theory of Santos et al. (2012), who state that the managers should
behave as role model for their employees to enhance a culture and a habit to share knowledge. Furthermore, when confronting it to the theory of Lodhi and Ahmad (2010), having a policy would be likely to embrace the different systems used internally and to enhance even more knowledge sharing, to turn it into an asset for the company. Thus, it is crucial for Alstom to improve and keep on updating the policy, in order to make it more accessible and understandable for the managers. To conclude, the authors would suggest that having a policy is not sufficient on its own. In order to improve knowledge sharing behaviors within a company, a policy can be a powerful leverage, but to do so, the policy should not add more paper work and should facilitate the daily work by providing guidelines.

5.2.3 Knowledge sharing practices

As it can be concluded from the interviews, the communications team identified several ways how to share knowledge with colleagues. T2 and M6 explained that they always check on the shared drive if there is a similar document available before starting a new one. In informal exchange meetings knowledge sharing takes place sometimes even unconsciously, whereas there are also highly formal Live Meeting sessions. From the interviews, the authors understood that the systems used are not fully approved by the employees; some defined it as heavy and not convenient. Moreover, one even thinks that the system is not reliable enough; this raises the concern of the quality and the security of the information shared. In fact, if the system is not highly secured in order to protect the knowledge developed internally, then the employees would not trust it. This would result in knowledge retention from the employees; the less the employees would use the system, the worse it would get because no one would update it. This would lead to have informal networks to exchange the knowledge; and as Maister et al. (2001, 2000) explained, if the knowledge flow relies on individuals, rather than on jobs or positions, then it is much more risky for the company, and it is likely that the company would lose knowledge. Thus, it is crucial for the company to ensure a good quality of the systems it provides so that the employees could rest upon those ones. Moreover, the top management should use the middle managers to create and be the core of social nodes (Massingham, 2010) in order to reach all the employees to communicate about the objectives of the group. Nevertheless, to a certain extent, it is important that the top management stresses out that employees should not only use the system and share with those they get along with, otherwise it would weaken the policy established.

5.3 The motivators and barriers of knowledge sharing

5.3.1 Motivators

Regarding the theoretical framework of this thesis, potential motivators or barriers for employees to share their knowledge are raised as well as several individual influencers. When interviewing the employees to get information about the factors they perceive as being motivating to share knowledge, the role of managers, the trust as well as the friendly environment were the main points raised by the employees. As Marks et al. (2008) developed, some of the individual barriers are the willingness, the trust and the feeling of belonging; thus, if those potential obstacles are absent then, there are less/few potential barriers left to slow down knowledge sharing. Actually, only one employee, E4, answered that he/she would like to have more support from his/her manager, but T2, T3, as well as M6 and E6 really strengthen the fact that their manager were really supportive and helpful. It seems that the managers strive to behave as role model to encourage their colleagues to share their knowledge. Some employees have added to the fact that working in a team implies to share their knowledge. The fact of evolving in a team establishes trust and a comfortable
environment, which both lead to a feeling of belonging that enhances knowledge sharing behaviors. E4 and E6 even strengthen the fact that sharing their knowledge does not weaken their uniqueness, so that there is no point of retaining information. When confronting to the company’s perspective on the topic, it appears that the group acknowledges the importance of establishing a motivating surrounding for its employees to share knowledge. Indeed, the KTH is intended for managers and upper level management. Therefore, there is a sub chapter dealing with potential barriers that employees might face and arguments how the manager can help to overcome these. People, organization and technology are identified as the three angles that can be taken when talking about KS barriers within Alstom. The Alstom group thereby tries to suggest a number of reasons and solutions for managers how to deal with barriers in order to support them to deal with the situation. Further, this section seems to be a kind of a guideline, which should enhance equal treatment of all employees. (Alstom KTH, 2012)

Furthermore, as soon as a project or document is completed, it has been experienced that every member of the total team puts his/her report on the shared drive, so it becomes available to the rest of the team. Eventually, this shows that all the members of the team contribute to the overall knowledge as being part of their job. When the trainee described the sharing behavior among colleagues, it seems that it is embedded in the culture, at least within the team. Trust is seen as an important factor for knowledge sharing (Fukuyama, 1995, p.26), therefore it is not surprising that the team spirit and culture really play a big part in motivating the investigated employees to adopt sharing behaviors. As explained in the literature review, trust is a necessary step towards knowledge sharing behaviors. Moreover, the fact that employees within the communication team see each other as more than colleagues, they are likely to share knowledge or help each other. (Riege, 2005; Sharma et al., 2012) Hence, it is of utter importance for a company to institute trust and team spirit to support sharing behaviors that would motivate the employees, but also that managers are aware of their influence throughout a company upon knowledge sharing processes. This implies that managers are the key starting point to trigger the implementation of knowledge sharing policies, to anchor the practices and processes of knowledge sharing among the employees.

5.3.2 Barriers

When the authors asked about the potential barriers that the employees could face, most of them acknowledged that the language was an obstacle. Indeed, as M6, as well as T2 and E6 stated, language and cultural backgrounds constitute an important aspect to take into account and that affects the daily work. This goes along with the theory of Sharma et al. (2012, p. 39) as well as Riege (2005), who state that national culture, ethnic background, as well as values and beliefs such as language clearly influence sharing. So it can be concluded that language is as barrier, but this is highly influenced by the personal perception and language level of the single employee that the company has to address in order to reduce those feelings.

In addition to language, E4, M6 and T2 also recognized that somehow, there was too much information on the used knowledge management systems, which make it more difficult to use and make it less reliable as well for the employees. Furthermore, especially E4 mentions the matter of coordination of processes. Even though the two teams are working within different areas, they have projects and events that concern both of them. Therefore, he/she sees a lack of transparency between the teams, which is seen as a barrier by him/her. This could result out of a lack of willingness to share by the others, a lack of appropriate systems or a lack of leadership, meaning that there is not enough support from the management to share. Indeed, as Santos et al. (2012) have explained, some technical barriers are evolving from the difficulty to codify some knowledge or competences. The authors also state that the difficulty can come
from the reliability of the system, as E4 mentioned, he/she does not trust the system as he/she should.

In the KTH, the director of knowledge management explained several constraints that managers have to face and they need to know how to tackle those issues. The potential obstacles are explained in detail, covering motivational and personal issues for the employees, technical issues as well as problems on the organizational level like how to combine the knowledge management strategy with the strategic goals of the group or department. What can be said of the Knowledge Transfer Handbook is that the knowledge management department recognizes and puts a lot of effort to overcome the potential barriers to knowledge sharing and make it efficient. When elaborating about the barriers that hamper knowledge sharing, the literature is numerous (Sharma et al., 2012; Foss & Pedersen, 2002; Santos et al. 2012).

In addition to the technical barriers, Riege (2005) has discussed the difficulties that can emerge from the organizational level and the importance of establishing a culture of knowledge sharing. The literature is also well numerous when addressing the individual barriers to knowledge sharing. In fact, several authors (Santos et al.,2012; Riege, 2005; Sharma et al., 2012) have argued that the lack of trust among a team could play a role in the willingness to share knowledge or not. The willingness to share is also dependent on the receiver, meaning, if people know who will receive their knowledge, they are more or less willing to do so. It can be seen that interpersonal conflicts can also become a barrier in KT. As the authors explained in their model, the knowledge transfer process is a bilateral discussion, meaning that even though the sharer is willing to give his/her knowledge, if the receiver does not pay attention to what is given, then the knowledge gets lost. Because of that, the sharer might not be willing to share any longer. Thus, it is important for the sharing process that the sharer does not have the impression to be the only one to share.

To conclude about the barriers to knowledge sharing, it appears that, again, managers have a central role to understand and undertake. Indeed, since they are most likely to be the one to embody the knowledge sharing culture and to spread it among their colleagues, they are the one to focus on in order to reach all the employees.
6 DISCUSSION AND CONCLUSION

In this chapter, the authors are supposed to discuss the research objectives, as well as to talk about the most relevant and valuable findings, meaning the study’s contribution to new knowledge. The aim of this research is to increase the understanding of how knowledge sharing is perceived by employees and how knowledge sharing policy and individual factors influence the willingness to contribute to the overall knowledge. This will be done through a case study. To cover this purpose, three sub purposes will be addressed.

- The first one aims at increasing the understanding of how employees perceive knowledge sharing as strategically important.
- The second one aims at increasing the understanding of how employees perceive knowledge sharing policy.
- The third one aims at identifying motivators and barriers among the investigated employees.

As the authors of this thesis have collected the empirical data at Alstom France, they will include some specific recommendations for the company. Likewise, the empirical chapter, this one will be split into categories, corresponding to the sub purposes, and into themes within the categories.

6.1 Discussion

Firstly, it has been discovered that the Alstom group has a strong focus on knowledge management, since it sees the importance of knowledge management and the implications of knowledge loss, as explained by Massingham (2010). In its strategy, the group has established a top-down communication culture, which permits the managers to communicate the strategy further, and as it can be seen, it is already tightened in the employees’ mindset. The differentiation between tacit and explicit knowledge that the authors of this research drew within their literature review, is not done neither by the company, nor by the employees. Experience, processes, documents, competences and skills are listed in the same breath. Considering the previous discussion, it can be concluded that the company highly values knowledge sharing and knowledge transfer. It can be concluded that a company should understand the urge of embracing knowledge and integrating it to the main strategy as a key resource to manage to face competition. The fact that the authors investigated the communication team is a key issue for this thesis since the employees of that team are precisely the one to communicate about the knowledge sharing policies throughout the group and its implementation and processes. Indeed, because of their status, they all should be aware of the policy of Alstom in order to promote it, even though it has been designed for managers. Previous research has shown to what extent knowledge management and knowledge sharing were crucial for a company. Nevertheless, the authors of this research put emphasis on the fact that the used systems need to be user-friendly from an IT perspective, on the other hand, the embedded processes do not seem to be standardized and therefore there is potential to optimize them.

Secondly, knowledge sharing seems to be differently implemented within the departments. As it was found in the empirical research, the implementation of knowledge sharing and the embedding of a sharing culture is highly dependent on the manager and his/her own approach towards knowledge sharing. Furthermore, the tools and systems used vary even within the department, for reasons of different needs at the workplace itself or a lack of trust. From this,
the authors could conclude that if a company announces knowledge management as a part of its strategy, it is important how it is communicated. Moreover, the aim is not only to create a theoretical guideline, but also to be able to manage knowledge in practice, meaning the actual sharing, through providing appropriate systems and structures.

Thirdly, as the model of the authors (Figure 2: The authors' model of Knowledge Transfer on the organizational level) describes, there is a sender and a receiver when talking about knowledge sharing. Therefore, it is evident to talk about the motivators. As high motivational factors trust as well as a stimulating working environment were identified in the interviews. Moreover, it appeared that managers have a key role to play on which culture, habits, routines hinge around. When sharing their knowledge, individuals will have to overcome obstacles, whether they are organizational, individual or technical. The better the company knows about those barriers, the better it will be able to tackle those. It is of utter importance for a company to establish a framework that helps the employees to externalize their knowledge without having to fear difficulties when doing it.

The authors aimed at increasing the understanding of individuals’ perception of knowledge sharing, since there has been little research on individual’s sharing behavior when the company has introduced a knowledge sharing policy. By having this in mind, the authors investigated a company, which has put a strong focus on ways how to keep the knowledge within the company. By doing so, the authors came to the result that there is an increased awareness about the area; however, this is strongly influenced by the manager responsible. Those were identified as the key point in terms of communication of the policy itself, as well as creating an open sharing culture, which encourages the employees. Only by acknowledging the importance of knowledge as a sustainable competitive advantage and an increased understanding how to create a culture of trust, and routines of knowledge sharing would permit companies to turn knowledge into a powerful leverage to maintain a reliable competitive advantage.

The aim is to increase the understanding of how knowledge sharing and knowledge sharing policies are perceived by employees. When reviewing the respondents’ answers, the authors found out that establishing a knowledge sharing policy would make sense only if the company promotes it and launch communication campaign throughout the organization so that would permit to increase the awareness of all employees. Indeed, having an associated promotion plan with the knowledge sharing policy would ensure that the employees would recognize the necessity to share their knowledge, but also to make the policy easy to understand and apply. It is fundamental that companies establish user-friendly policies that correspond to its employees, not just a manual designed by the top management, too abstract for the rest of the organization and too heavy to abide by.

More importantly, the major outcome of this research is that the findings permit to outline the power of managers’ role upon the employees. Indeed, previous research has established that managers should behave as role model, but what can be said from this thesis is that managers have the central role in spreading knowledge sharing policies and influencing employees. In fact, since they are the ones to communicate the organizational strategy to the employees and to explain it to them, they are the key factor to focus on. It is the managers that will impact the most employees’ internal decision-making process, their motivations and the way they will face barriers.
6.2 Implications

Companies that have understood the strategic importance of knowledge management in order to develop a sustainable competitive advantage need to be aware that when introducing such a policy, companies need to ensure that the design of the policy is applicable for its receiver. Further, to overcome barriers within knowledge sharing, it is necessary to communicate the strategy, its implications and to introduce mechanisms to overcome these. In a long run it aims to keep knowledge within the company on the one hand, on the other hand it should facilitate the daily work of employees and decrease their learning curve.

The authors of this thesis will present some recommendations for the Alstom group that could help the group to improve the application of its knowledge sharing policy. Those recommendations can also be applied to other organizations as well. When reading the KTH, the authors perceived it as very abstract, meaning that the actual content was relevant and useful, but not connected to the employees’ daily work, and thus, hardly applicable. Indeed, for its application the reader needs to think very carefully about the content, since it was designed for managers, it is presented in a very theoretical way. Even though the authors of this thesis recognize that due to the size and structure of the organization the KTH is complex; but one proposition would be to simplify it, or make to more practical so that the employees would feel more comfortable to follow it. Another way to ensure that the policy is followed would be to organize trainings for the managers, which permits to introduce standardized sharing processes and routines.

The concrete outcome is that the authors found out that knowledge sharing policies are a main tool to make the existing knowledge management systems and processes even more efficient. Policies act as leverage within the company, but in order to make it “powerful” or at least useful and helpful, they have to fit to the employees, to be applicable and adapted to the daily work of the employees so then, the leverage would function. An easy and attractive policy would lead to more efficiency within the processes, and thus, indirectly, would influence positively a company’s performance.

6.3 Suggested further research

For further research, the authors suggest to investigate the whole communication team, meaning that interviews should be conducted also with members of the team who are spread all over the world. Taking into account different national cultures and legislation would have gone beyond the scope of this thesis. However, as mentioned in the delimitations, it would bring some insights, on how KS takes place within the group and therefore, other influencing factors such as different processes, legislation, language, national culture and another company culture might influence the employees’ behavior and perceptions. This would also permit to increase the understanding of how the KTH was communicated there and most importantly how knowledge sharing and the interaction within the overall team are handled.

Furthermore, as it was mentioned by M6, support functions might have other needs concerning knowledge sharing than the operational functions. Therefore, the actual perceived value of knowledge sharing, as well as the degree of standardization, varies for those. So, if one is willing to have an overall insight how the KTH is implemented within the Alstom group, it would be necessary to investigate employees from other departments, as well as from other sites.
7 REFERENCES


**Online References:**


APPENDIX 1

Interview guideline

Chers anciens camarades!

As you maybe remember, I’m in Sweden to get my double diploma, so I have to write a thesis here as well. With my partner, Angelika Hartner, we decided to investigate the impact of having a Knowledge Sharing Policy within a multinational organization. Actually, we aim at examining how it is spread out through the employees and see whether a policy is efficient to enhance a feeling of belonging to a group or even to the organization, and thus, foster a behavior of sharing skills, competences, information with colleagues.

I know that you are more than busy and overloaded, but could you take a moment to write like 5/7 lines per question. We have decided to send you the questionnaire by email rather than try to get you on the phone for practical reason as well as a tremendous lack of time. Indeed, we’re supposed to be done within less than 10 days...

THANK YOU SO MUCH!!!

1 - Do you sometimes help your colleagues out with your expertise/skills/information or provide them with docs that you used in the past? What type of information/knowledge is important for your work? Do you share only when you asked or is information shared on beforehand where others can have access? Which tools do you use for that? How do you do that? (e.g. phone calls, e-mail, chat, meetings, shared drive, intranet, coffee break, etc.)

2 - The question above describes the concept of knowledge sharing.
   • Are there any formalized systems or routines for sharing certain types of information? If so, which are they?
   • For which purpose do you share it?
   • How important is it for you? Do you perceive it as valuable for the company and your colleagues?
   • Is it on a regular basis?

3 - Do you feel any barriers to share your knowledge?
   • Is there any type of knowledge you feel less prone to share? Or are you more/less likely to share with some people in particular? If yes, why?
   • Do you perceive language as a barrier? In what way?
   • Do you think knowledge sharing could reduce your individual (unique) skills?
   • Do feel that more and more information is available than necessary?

4 - Do you feel that your managers encourage the knowledge sharing behaviour/culture? In what way? (e.g. managers are a role model, managers tolerate mistakes, ….)
5 - Do you think that Alstom encourages its employees to share their knowledge?

6 - Alstom has introduced a Knowledge Transfer Handbook (KTH), did you hear about it?
   - If yes: How did you learn about it? (seminars, intranet, etc.) And in what way has it influenced your way of working?

7 - How would you perceive and describe it? (e.g. useful, helpful, heavy, easy,...)