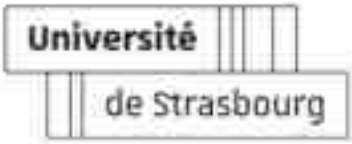

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Sharing Knowledge Among Employees & Its Impact on the Company

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ABSTRACT

Knowledge sharing is an important issue that most of companies suffer from the lack of the importance of knowledge sharing. Therefore, the research was started during the internship period at Hager Group with observing and investigating the process taken to share knowledge among the staff of the company.

Then some analysis was done using questionnaire, a mix of qualitative and quantitative questions, to illustrate the ideas that were described and explained in the thesis. The survey was sent to the targeted population, the Technical Support Team. After analysing the answers a comparison between the reality and the theory was done.

The research was concluded by some recommendations that help the company understand the situation of knowledge sharing among its employees, as well as suggesting to the concerned company some advice to improve the situation, and working on taking advantage of this valuable hidden knowledge inside employees minds.

INTRODUCTION

Advances in transportation and communication technologies launched a new boom era, called globalisation. *"Globalisation is a dynamic process driven by technological changes and carried out through well-identified International channels: free trade, liberalised capital flows and movements of people", (Verde, 2017).* This technological revolution increased and accelerated the exchange of ideas, products, and capitals between global businesses and customers. According to (*Kaufmann*, 2007), *"Globalisation has several effects in the world of work: it entails new markets, new products, new mindsets, new competencies and new ways of thinking about business."*.

Today, during the age of technology and thanks to the internet and to E-commerce, a variety of products from all over the world are now available in just a few clicks. Customers have the chance to know the global trends and to have more purchasing choices while they are sitting at home. This movement raised trade, brought up export, and changed customers' behavior. The desire to purchase has been raised in customers, following the obvious increase in the product's variation, combined with lower prices. As well as the rise of their needs for better, efficient, and rapid customer service.

On the other hand, globalisation has put pressure on companies in terms of competition, innovation, value creation, and winning customers. Many companies had difficulties facing this unanticipated movement and failed to adapt to this global shift, *"uncovering the most valuable opportunities is increasingly challenging for innovators, especially those using a traditional tool kit"* (*Mootee, 2013*), because they did not change their strategies or their products/services. To adapt to that economically difficult time, companies had to change and innovate new methods to respond quickly to customers' needs. "*As our technology, transportation, communication, and other ways of being in the world become increasingly fast and efficient, the old traditions around which cultures, economies, and politics have been organized are upended" (Mootee, 2013*). Changing and innovation require new tools, ideas, new skills, and knowledge; consequently many of these companies lost their customers because they did not adapt to the changing environment.

In order to minimising the risks and attract customers, some companies have started to adopt new tools and new strategies in order to survive or even win the competition. Nevertheless, knowledge is the solution for this challenge since *"knowledge is power"* (Bacon,1597). Some companies understood the importance of knowledge as a source of wealth, business growth, and success key to staying competitive in the market. Knowledge could be obtained from experience, experiments, observation, meditation, studying, or simply by communicating with other people. However, to get the most value out of this unique knowledge, companies have to invest in the process. Starting by searching in the depths to discover employees' possessed skills and knowledge. Then developing these skills and sharing them with the other employees to fill in the gaps between them and give them a collective collaboration.

If we take Hager Group as an example of a big international company, the amount of knowledge possessed is huge. Thus, in theory, managing and sharing knowledge have to be essential at this company. Though, a successful culture of knowledge sharing should be built in a structured way, passing by defined objectives, structure, process, and a formal hierarchy system. However, after months of observation of the Customer Services in some European countries (mainly France), an issue was noticed. Within the company, the culture of knowledge sharing is not really framed, which shows that **knowledge sharing among Hager's employees is non-structured.** Therefore, it leads to a risk of loss of productivity, creating a gap in communication between different teams' members, and a risk of missing the competitive advantage by losing these experiences. In this context, this paper answers the following question:

How can knowledge sharing be structured within a company?

The objectives of this research are to illustrate the current situation concerning knowledge sharing in the company, to present the benefits and the impact of unstructured knowledge-sharing, to measure how structured it is, and propose the best solution according to a precised situation. For this purpose, some investigations, research, and an online survey were conducted to understand and improve knowledge sharing in the company.

Chapter 1 - BACKGROUND

Section 1. Presentation of the company

1.1 Company through the time

A premier supplier of electrical installation solutions is Hager Group. In Saarland, Germany, this German-French business was founded in 1955 by brothers Oswald and Hermann Hager, as well as their father Peter Hager.

After the Saarland region joined Germany, the two brothers chose to expand their manufacturing outside of the German borders in order to maintain their business in the French market. In 1959, they decided to rebuild a second factory in Obernai, France. Then in 1962, a bigger factory was created in Obernai in order to better fit the increasing needs of customers.

A few years later, Hager gradually spread into other market areas, including the UK, Switzerland, Italy, Spain, and other European markets. In addition to China, Africa, and the Middle East. This Franco-German family developed their business till it was a global market leader.

Figure 1. Hager's presence over the world

Hager remains an independent company that is managed and owned by members of the Hager family. The chief executive officer since 2008 is Mr. Daniel

Hager, son of Dr. Oswald Hager, and the company's headquarter is in Blieskastel, Germany. Nevertheless, the company's structure as a European company (societas Europaea, SE) still highlights both cultural diversity and European heritage.

1.2 The company's business

Hager Group offers solutions and services for electrical installations in residential, commercial, and industrial facilities. Energy distribution, control devices, cable mangement systems, wiring accessories, security systems such as alarms, smoke and motion detectors, in addition to energy storage devices, electric vehicle charging stations, and building automation are among the spectrum of Hager brand solutions and services. Hager oversees the creation of ground-breaking goods, technologies, and services needed for building automation. However, the present focus of development is on building automation, networked housing, electric mobility, and energy efficiency.

Hager is a multinational company with 12100 employees that had in 2021 a turnover of about 2.6 billion euros. Hager has 120 distribution points worldwide, 22 manufacturing facilities in 10 different countries, and clients in more than 100 countries trust them for their solutions and components.

Figure 2. Key figures about Hager

Hager's business model targets wholesalers and electrical installers. The end user customer cannot purchase products directly from Hager. It believes that keeping the client at the centre of their activities is the key to future success. Hager's vision is

simple: to establish itself as a global player in an electric world that is changing, while staying a strong, competitive, independent, and familial company. This happens by providing the best customer experience along with the best electrical products and solutions. *"We are a family business shaping tomorrow's electrical world to make people's life on our planet safer, cleaner and more enjoyable."* Daniel Hager, CEO of Hager Group.

Hager's values are *"authenticity, courage, integrity"*. *Authenticity* means that Hager has their way and does not imitate any other company. By listening to the customers, it works on developing advanced technical solutions known by its quality. *Courage* means Hager's sense of innovation. *Integrity* is about being strong and sticking to the values *"doing what we say and saying what we do"* (Philippe F. Group Resources Director). These values guide the decision making of the company, its interaction with their customers, partners and even between colleagues.

1.3 Brands

Hager Group offers a complete range of products and solutions that exist on the market under a variety of brands names:

Hager: offers a full selection of products and solutions for residential electrical distribution as well as for commercial and industrial buildings.

Berker: offers switches and systems that are sold all over the world.

Bocchiotti: propose a wide-range of options for cable management and small power generation.

Daitem: specialised in alarm and security systems.

Diagral: expert in wireless alarm systems that are simple to install.

Elcom: specialised in state-of-the-art communication systems and imaginative gateway layouts.

E3/DC : in Germany and Switzerland, E3/DC has been producing solutions for energy storage and electric mobility.

Figure 3. Hager's different brands

1.4 The hosting entity

Today Hager's family consists of 12100 employees widespread in different countries, working all together to achieve a long-term success. However, each branch works independently to obtain the common goal and at the end, each manager of Hager's local branch reports to Hager Group's CEO, Mr. Daniel Hager.

Most of the employees work for the local branch and some of them work for the Group. Employees are structured into many departments and teamwork. The hosting department is called *Marketing Clients-Europe Region*. This department works under Hager Group's responsibility, it is divided into many teams, some work from France and some work from Germany.

The researcher joined the Customer Care Europe (CCE) team as a trainee. The CCE team members are located in France and work with the Central Quality team, System Design & Management team, Digital Factory and the Technical Support (TS) team of 10 European countries: Germany, Sweden, the Netherlands, Spain, Switzerland, the United Kingdom, Poland, Portugal, Belgium, and Italy. The communicating language used within the teams is English. Whereas the customers' demands are handled in the local language by the local TS team members.

The CCE team consists of 5 people as explained in the following chart:

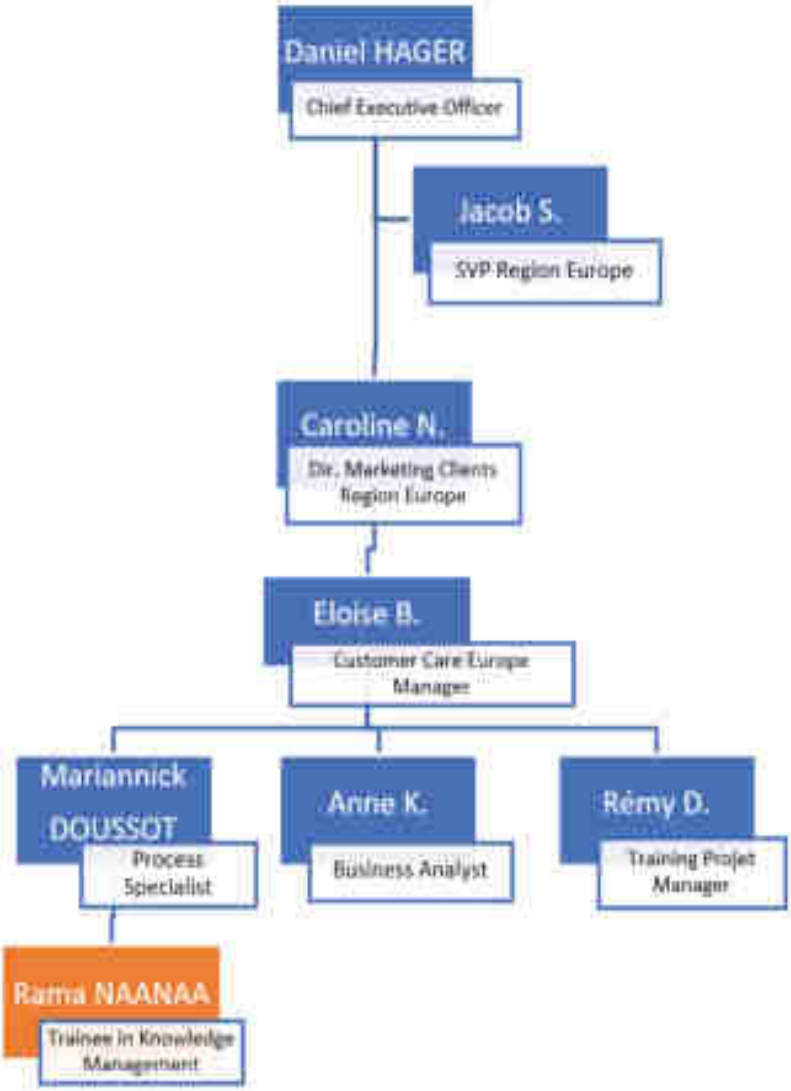

Figure 4. The organisational chart

The CCE team objectives are centred on establishing customer loyalty by ensuring clear workflows and responsibilities (local/global) for handling customer demands, and developing strong customer services in Europe. CCE aims to develop an efficient European model with simple and harmonised processes. These targets will lead to customer-centric action plans based on customer demands recorded in the CRM (Customer Relationship Management). The CRM is a system mainly used for sales management. Whils, Hager Group, since 2018, uses CRM also to manage, store, and track its interactions with customers.

The main project of CCE in 2022 is to provide European KPIs concerning the new European harmonised process in CRM to manage the customers' requirements that are mainly received through phone calls.

In order to track those requirements, every received call has to be registered by the technical support team as a case. A case is when the customer/ installer calls the technical support team asking for advice, or a solution to a technical problem, or an installation support. The agent in this situation will create a case in the CRM by entering some information concerning the client, the purpose of calling, the product, and the type of problem. After registering the case, some suggested articles will go up in the CRM which might include the required solution for the current problem. These knowledge articles are written by Hager's specialists at the Local Technical Support Team. If not, the case will be passed to an upper level of the Customer Support Team, to QIM or JIRA.

The Customer Support Team at Hager is divided into three different levels. When customers have a problem or demandes they call one of the front-end teams, the Local Technical Support or the Customer Service (called level 1). The team who receives the call registering it in the system as a "case" and giving it a case number. This case should be solved directly, while the customer is still on the phone, to ensure the client's satisfaction and to avoid any other calls coming from the same customer about the same problem.

If the team is not able to solve it directly, the case will be passed to Quality Issue Management (QIM), whether to the D&I Support team or to Customer Technical Support (level 2), depending on the type of the problem. The level 2 teams usually have more knowledge about complicated technical problems.

At the end, if the problem is about a digital issue it will be escalated to JIRA (level 3), and if the problem is about product manufacturing, application issues, or IT systems (IoT cloud, mobile application, etc.), it will be escalated to the Development Quality team or to the IoT Cloud Factory Team (ICF). Whilst, if it is about an issue on the website (MyHager account, etc.) the case will be sent to the Digital Factory team (DF).

The following figure demonstrates the different levels of customer support:

Figure 5. Customer Support Levels

During internship period, as a CCE team member, the researcher has direct contact with the Local Technical Support team members who are responsible for handling customers' demands rapidly and this is essential to ensure customer loyalty which is one of the CCE team objectives.

The main task of the internship is to check all the knowledge articles published on the CRM, translate them into English to make the content accessible to all Technical Support (TS) teams in other European countries. In the aim of developing an efficient harmonised European Customer Service.

Section 2. Knowledge-sharing within the company

2.1 The practice of knowledge sharing

Knowledge sharing is in the center of knowledge management. Knowledge managers focus on discovering relevant, interesting knowledge that can be used as a success key that improves business performance and allows them to gain sustainable competitive advantage. Knowledge sharing refers to *"the process of exchanging information between people, teams, or organisations."* . Whether it is tacit knowledge which comes from the employees' experiences or an explicit knowledge coming from books, reports, and documents. Encouraging employees to participate in an organised knowledge sharing improves their productivity, internal development, and their effective workforce. At the concerned company, an attempt of organised knowledge sharing was done through creating and storing knowledge articles on the CRM. These articles were written by the Technical Support (TS) team and published later on.

During the internship all these articles were analysed through several workshops done with different members from the Technical Support team. Consequently, the observed issues were that a lot of these knowledge articles were published on the CRM in an incorrect or unstructured way which hinder the accessibility of employees to the aforementioned articles. There is no uniformity in the process of creation and there are no tools to measure the efficiency of the process. This absence of the uniformity means difficulties in accessing and finding the needed article on the CRM once required. For example, when an employee is on the phone with a customer the needed article has to be found rapidly.

Another issue is that the current knowledge base has been used by Hager for about 3 years and all the European countries have access to it. However, France is working effectively on creating knowledge articles, 55.71**%** of articles are in French. These articles that were written in French (means in local languages) are not accessible for the customer service teams in other countries, which is the main reason that hinder the practice of knowledge sharing at Hager at a European level.

2.2 Benefits & impacts

Sharing knowledge inside businesses and organisations is seen as essential in KM *"Knowledge transfer is an important aspect of knowledge management because knowledge, once captured or obtained by an organization, must be able to be shared from and by persons and groups within the organization*." (Jennex, 2007). This mission is now simpler to implement, assess, and manage in the digital age. Sharing knowledge has many benefits and at the same time, it has many impacts if sharing is not well structured.

Several studies have discovered that knowledge sharing fosters individual creative thinking, knowledge generation, creative fluency, and originality, which results an effective learning and creativity (Hu and Zhao, 2016). At its best, knowledge sharing helps organisations achieve higher levels of organisational effectiveness, process improvement, and financial performance. The following are some benefits and impacts of knowledge sharing within a business:

1- Preserving ≠ losing knowledge

Sharing knowledge allows companies to store it and make it accessible to other colleagues. *"Knowledge which is obtained needs to be captured and stored in a form which would allow it to be accessed by others or to be referenced when needed. This would allow the knowledge to be retained within a firm rather than having it be "carried in the heads" of the company founders or employees, which might result in it being lost if the person was to leave, die, or be otherwise unavailable" (Jennex, 2007).* Today in the era of remote or a hybrid workplaces, it is critical to implement multi practices for knowledge sharing. Employees cannot work from home without having all the needed information and documents accessible. However, the most important thing is facilitating information access, sharing, and encouraging more collaborative working styles. Moreover, implementing a knowledge base system means that all the team members have access to the same information and at the same level whenever needed without any loss of information.

On the other hand, companies should always be aware and prepared for knowledge loss in case the most experienced employees retire or decide to leave the company without sharing their knowledge. The business in this situation will be in

danger. Therefore, if they share and store their knowledge they can leave without causing any serious damage to the company. However, if companies do not create a knowledge-sharing culture, they will lose these expertises once the employee leaves.

2- Increasing ≠ decreasing developing skills

Creating an open sharing culture within the company will significantly improve personal and professional skills. It also reduces the disparity in skills because everyone feels free to ask questions and employees are motivated to learn from each other. When workers are motivated, they cooperate more effectively and aid one another in achieving the desired objectives. Knowledge-sharing is a form of continuous learning starting by understanding the new knowledge and then applying it in an efficient way to developpe new skills. While the lack of knowledge-sharing hinders this personal development and keeps them far from the possibility of this continuous learning.

3- Improving ≠ reducing interaction, collaboration & communication

When knowledge is shared at work it happens mainly through the interaction between employees. Encouraging knowledge-sharing within the company means improving communication and creating a trusting relationship between employees. This leads to positive and efficient workplace culture. on the contrary, hoarding knowledge signifies that there is a problem with communication and collaboration between employees.

4- Saving ≠ losing time and money

Employees no longer need to waste time looking for information that is already available. New employees can integrate easily and find all the documents they need in their hands. Sharing knowledge enables them to improve their productivity and avoid committing the same mistakes twice as they can find the answers of common problems. Moreover, finding answers quickly means solving clients' problems quickly and effectively, therefore ensuring the clients satisfaction.

On the other hand, possessing knowledge without being organised and structured means having difficulties accessing it. In this case, employees either waste their time looking for the needed information or continue working without that knowledge

because they could not find what they are looking for. In both cases, the result is the same, a loss of time, money, productivity, performance, … etc. This can affect the customers as well, not being able to quickly find the needed information in order to answer the clients and to deliver a better solution, will surely impact client satisfaction.

5- Quick ≠ slow decision-making

Providing employees with the right information at the right time through the right structured knowledge base allows them to make the right decision quickly and efficiently. *"Organizations implementing KM increase the amount of knowledge sharing between their members, this also improves decision making but creates potentially uncontrolled knowledge flows and new social networks", (Jennex,2017).* This open collaboration provides a wider reflection of team members, bringing their different experiences, skills, and opinions when making a decision.

On the other hand, unstructured knowledge-sharing impacts the decision-making process. At an organisational level, if the members of the workforce are not given relevant information, the process of decision-making becomes much slower. For instance, if a multiple headquarters company, such as Hager Groupe, deals separately with the same problem at different times or even at the same time. When one of them finds a solution without sharing it, it means that the other company branches do not benefit from their experience. However, to avoid these types of problems and to motivate every employee to take the responsibility to share their experiences, companies should make knowledge sharing a part of their culture.

6- Avoiding ≠ repeating the same mistakes.

Learning from already committed mistakes with making sure to not repeat them by creating that shared knowledge base, which is known as one of its best features. The importance of sharing knowledge with coworkers is that it helps to prevent others from making the same mistakes when people discuss what has not worked and their teammates may access their ideas, or when sharing with them a solution that has worked better than anything else before.

On the other hand, the absence of knowledge-sharing culture prevent employees to have the opportunity to share their experiences as well as their mistakes.

However, if they apply a regular open discussion between team members, it will allow them to avoid remaking the same errors, and not spending time duplicating their efforts. Most importantly, this loss of time should be saved and could be spent on other tasks that boost productivity.

7- Improving ≠ lacking motivation & innovation

During the knowledge sharing process, employees can see how their work can truly make a difference, by assisting each other in developing and learning new skills. These behaviors increase their engagement and make them feel more motivated and appreciated. Potential leaders can be identified as those who are focused on organising teamwork while taking initiative. This sense of this purpose facilitates the forming of collaborative teams, increases enthusiasm, and encourages everyone to share information. When we see others constantly improving their skills, we demand more effort from ourselves. This strong desire for self-realisation has been identified as an important source of innovative behavior.

Speaking of which, the key to stay away from competitors is the innovative behavior. Having an unstructured collaborative environment hinders the power of innovating new ideas and opinions. Whereas creating this knowledge-sharing culture is the foundation for encouraging innovation, these day-to-day innovations are critical to a company's success.

Sharing knowledge rather than hoarding it, gives businesses more influence. An open collaborative knowledge-sharing culture is essential for making a unique company knowledge, best practices, and information available to anyone who requires it. Using this knowledge transforms employees into productive resources capable of propelling your company forward with innovative thinking and sound decision-making. However, the key to ensuring that valuable knowledge is shared and not turned into a barrier to advancement is knowledge management and the ease of searching for knowledge in the situations where people need it most depends on how we organise it and manage it.

To discuss the subject further, *AWH*, a German company that provides information technology and services, made the following estimation. In a company of 100 employees, with annual salaries averaging $60,000. AWH estimated that each employee wastes at least 5 minutes per day looking for answers to some common

questions. Wasting only a few minutes has a huge economic impact on the company. The following picture explains the surprising result :

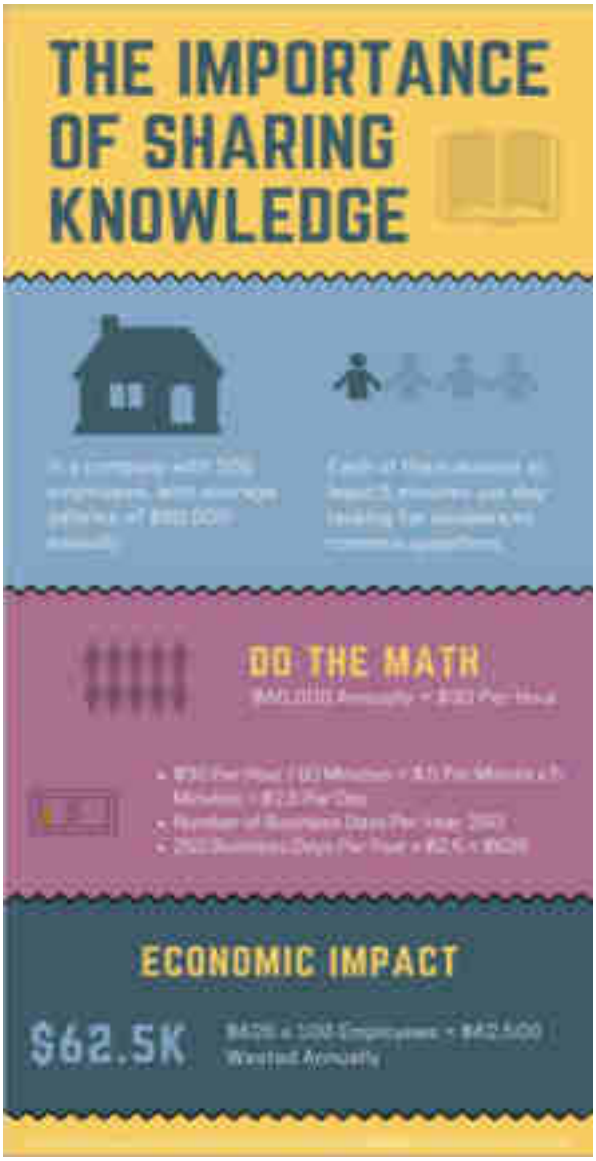

*Figure 6. AWH Estimation**

To conclude, these problems and many others can be avoided by having a good knowledge-sharing strategy which necessitates the implementation of specific processes and tactics that enable the creation, storage, and effective knowledge-sharing wherever and whenever it is needed.

Chapter 2 - LITERATURE REVIEW

2.1 The concept of Knowledge

Knowledge is a sum of skills acquired by realising, discovering, and learning from the reality and the facts around us. It could be obtained from experience, experiments, observation, meditation, studying or even communication with other people *"Knowledge is the full utilization of information and data coupled with the potential of people's skills, competencies, ideas, intuitions, commitments and motivations….Knowledge is stored in the individual brain or encoded in organizational processes, documents, products, services, facilities and systems" (Gupta, Sharma, & Hsu, 2007).* The amount of knowledge related to the personal capacity to learn, to discover unknown things, and to share ideas and knowledge with others. Since knowledge varies from one person to another, the collective knowledge possessed by a business organisation is unique, it shapes its activity, its ability to innovate, and to gain competitive advantages. Companies must have knowledge to perform at their best.

Business collective knowledge could include knowledge of the customer's needs, the market, the business process efficiency, skills and experience of work members. However, individual knowledge is unique but at the same time it is easy to lose, especially when the most experienced employees retire or leave their work without sharing their expertise, the business in this case will be in danger.

On the other hand, when employees do not have or they do not share the right knowledge, they cannot make the right decisions and it could actually cost companies a fortune. That is because the knowledge that the employees have as well as the knowledge transmitted to them absolutely has a huge impact on the company's ability to gain competitive advantages and to achieve success. Therefore, what is "knowledge" and how it could be acquired.

2.2 DIKW Pyramid

To answer the previous questions, we should know the difference between data, information and knowledge, which is something challenging and might be confusing. Despite the fact that these terms are directly connected, some differences can still be found between them. Many authors have realised these differences and they classified these terms into a form of a pyramid to facilitate the idea. Each author has designed their own knowledge pyramid trying to present it in a different way, but the idea of *"DIKW Pyramid"* or *"Knowledge Hierarchy"* was introduced for the first time *by T. S. Eliot, in* his poem *Choruses from "The Rock" (1934), "Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?".*

This pyramid presents the different levels to reach knowledge, starting from the bottom of the pyramid with "data", towards the higher level "information", then the up level which is "knowledge", until reaching to the highest level "wisdom" at the top of the pyramide, as in the following designed pyramid:

Figure 7. DIKW Pyramid

2.2.1 Data:

DIKW Pyramid starts by collecting data, but data itself when it is "raw" and unstructured has no meaning. *"Data are letters and numbers without meaning. Data are independent, isolated measurements, characters, numerical characters, and symbols."*, (Gottschalk P., 2007). Data can be compared to crude oil, it is only valued and useful once it is processed. That's why organising data after collecting it is

important and essential, it gives data a meaning. For example, if someone said the word “red” without any context, it would have no meaning in itself, while this meaningless data could have a meaning when it is structured into a proper context following the pyramid levels.

2.2.2 Information:

“Information is data that are included in a context that makes sense”, (Gottschalk P., 2007). Once the data is structured and organised it is called Information. *“Information is defined as facts and data organized to describe a particular situation or problem”* (Mitchell H., 2007). Information along with data, both can be stored and used later once needed. Information is more useful than data as it has a meaning and can answer questions starting with “who”, “what”, “ where”, and “when” in an objective way. Information could be collected from different and separate places, from email, phone calls, meetings, websites, social media, etc. An example of information is the phrase “the red colour of the traffic light”, here we can see that the “red” in this context makes sense and has a meaning.

2.2.3 Knowledge:

Knowledge was defined by *Gottschalk* as: “information combined with experience, context, interpretation, and reflection”. (*Davenport T. & Prusak L*., 1997) believe that *“Knowledge is information with the most value and is consequently the hardest form to manage”.* Knowledge is the way that everyone understands and analyses the receiving information, thus knowledge is unique and different from one person to another. Knowledge answers questions starting with “how”. The key difference between these three elements is accessibility. Data and information can be stored, consequently, they are accessible to everyone at any time.

While knowledge comes from experiences and learning, therefore it is inside the human's mind and cannot be accessed without communication and social interaction “*Furthermore, to access knowledge it is required to engage in social interaction.”, Brauner & Becker (2006).* An example of knowledge is that “the colour of the traffic light is red, meaning that it might be dangerous if someone crosses”.

2.2.4 Wisdom:

Then at the narrow top of the pyramid, we have "Wisdom". *"Wisdom is knowledge combined with learning, insights, and judgmental abilities. "Wisdom is more difficult to explain than knowledge since the levels of context become even more personal", (Gottschalk, 2007)*. This combination helps individuals to make better decisions, take subjective actions, and this is wisdom. Example of wisdom is "the traffic light where we are standing is red, we have to stop".

Wisdom is really different from the other previous concepts as it is so personal, *"wisdom cannot be created like data and information, and it cannot be shared with others like knowledge. Because the context is so personal, it becomes almost exclusive to our own minds, and incompatible with the minds of others without extensive transaction", (Gottschalk).* Another difference is that data, information and knowledge are all created and processed with a vision into the past while wisdom is somehow about actions and vision more into the future.

To sum up, knowledge is considered as the most valuable type of content on the pyramid and the most difficult element to manage because it is unique and different from one person to another, with the need of some efforts to be taken out for the individuals minds. *"Knowledge has the highest value, the most human Knowledge Management contribution, the greatest relevance to decisions and actions, and the greatest dependence on a specific situation or context. It is also the most difficult of content types to manage, because it originates and is applied in the minds of human beings." (Gottschalk).*

2.3 Types of Knowledge

Understanding the previous concept helps us to understand knowledge and then being able to distinguish the different types of it.

Knowledge is defined in Cambridge dictionary as "*Awareness, understanding, or information that has been obtained by experience or study, and that is either in a person's mind or possessed by people generally".*

Another definition made by Nonaka and Takeuchi, they defined knowledge as *"a dynamic human process of personal justification of beliefs toward the truth"* (Nonaka

and Takeuchi, 1995). According to Nonaka there are two main types of knowledge, Tacit and Explicit.

According to *(Gupta, Sharma, & Hsu): "Knowledge may be as straightforward as a set of rules or definitions (explicit knowledge) or as complex as the skills involved in something like playing a violin or hitting a baseball in the major leagues. This latter form of knowledge, called "tacit knowledge".*

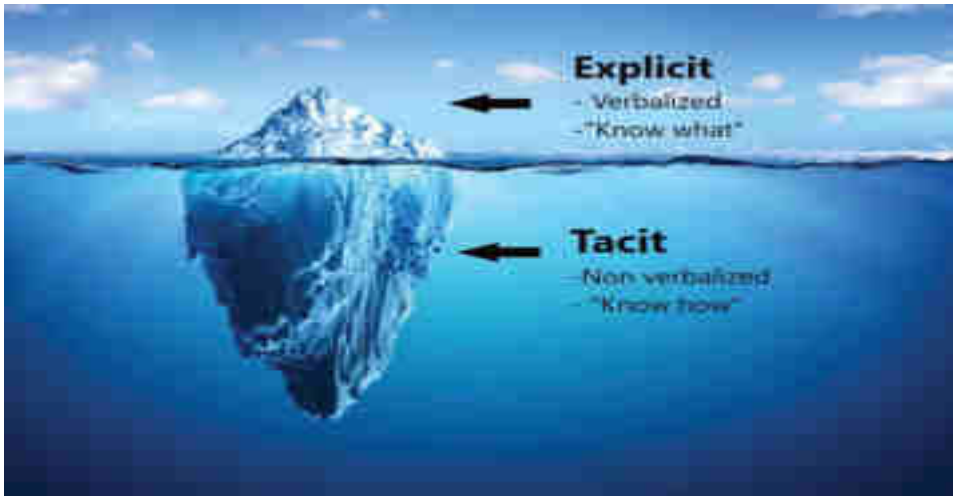

Figure 8. An illustration of the types of knowledge

Creating an effective knowledge management system and knowing which types of knowledge to be inserted in it, cannot be done without first classifying knowledge. As a result, having a knowledge taxonomy is critical.

2.3.1 Tacit knowledge

Tacit knowledge is non verbalised and unwritten knowledge. People usually gain this knowledge by experience, but it is difficult to be transferred, stored or shared with other people. "*Tacit knowledge is one of the challenging areas of knowledge management in that it is very difficult to codify this kind of knowledge on paper or in a database*" *(Gupta, Sharma, & Hsu, 2007)*. Only the person who has this knowledge can keep it but it remains in his mind because it is hard to verbalise and convey to someone else, *"we can know more than we can tell",* (Polanyi, 1966). For instance, learning a new language or a new sport are tacit knowledge because these skills are gained by time and it is difficult to be transferred.

Tacit knowledge is strongly related to personal skills such as listening effectively, high intelligence, capacity of learning and training, in addition to life and work experiences. As this knowledge is usually obtained by experience or study,

meaning it is inside the individual's mind and it is difficult to be expressed or transmitted. A good example of tacit knowledge is when we take a cake recipe from a Chef, we follow the recipe step by step but at the end we do not get exactly the same cake. As after years of experience the chef knows how to do the cake in this perfect way, he or she can feel each extra pinch of flour or sugar and knows the exact baking time without any mistakes. However, even if we get the exact recipe, these simple tricks cannot be verbalised and this is exactly the non verbalised tacit knowledge.

2.3.2 Explicit knowledge

Once knowledge is written it is called explicit knowledge. It is codified, easily shared between people and it can be stored. As opposed to tacit knowledge, explicit knowledge is written meaning it is easily accessible, such as through intranet process databases or manuals. *"Explicit knowledge can be expressed in words and numbers and shared in the form of data, scientific formulae, specifications, manuals, and the like. This kind of knowledge can be readily transmitted between individuals, both formally and systematically" (Gottschalk P.)*. This kind of knowledge is regarded as less problematic because it can be stored, for example, in documents that can be easily exchanged between employees. In this way, it can be found immediately, while the tacit knowledge requires specific personal skills. "*Explicit knowledge—knowledge that can be fully verbalized and so is available to any enquirer" (Jannex, 2007),* as it can be stored and shared even after workers' leave, when they retire or change their jobs. The key characteristics that distinguish explicit knowledge from tacit knowledge are summarised into the following figure:

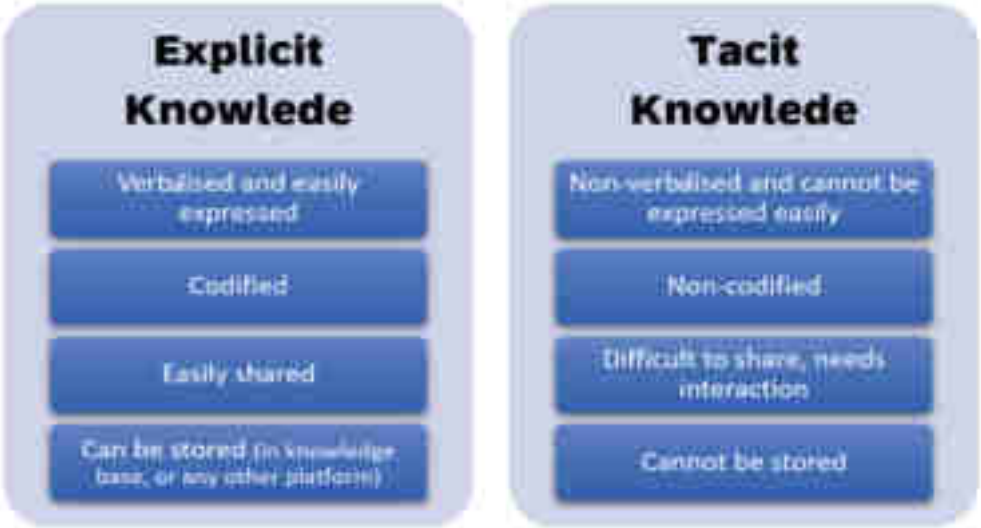

Figure 9. The key differences between tacit and explicit knowledge

Examples of explicit knowledge are a lot since it could include all necessary documents, contents, videos, how-to tutorials and all other types of coded information. In a business environment the employee-onboard materials can be a good example of explicit knowledge. The employee-onboard materials are documents usually written by the Human Ressources team and shared with the new employees in order to present the company, teach them the internal policies of the company, explaining to them their roles and duties, in order to integrate the new employees into the team work.

Since many years, the amount of structured and unstructured data, codified and uncodified knowledge has increased. However, data has no value without being processed at the same time the process has become more and more complicated because of the amount of data and information.

The need of processing, organising, and storing this information and knowledge pushed companies to create a knowledge management system. Being able to manage knowledge starts from being able to understand the different types of knowledge as well as the interaction between them through the following SECI Model.

2.4 The SECI Model

The SECI model is the most important tool for comprehending Nonaka theory. The interaction between the tacit and explicit knowledge creates four types of *“knowledge conversion”* as explained by *Nonaka,* the creator of the SECI model. Nonaka developed the idea that the dynamics of acquiring and expanding new organisational knowledge follow a knowledge “Spiral” (see the diagram below).

“Knowledge conversion” means that *"it is possible to change the form of knowledge, i.e., turn existing tacit knowledge into new explicit knowledge and existing explicit knowledge into new tacit knowledge or to turn existing explicit knowledge into new explicit knowledge and existing tacit knowledge into new tacit knowledge"* (*Gupta, Sharma, & Hsu)*. This changing form of knowledge could happen by following the Nonaka SECI model. The SECI stands for: socialisation, externalisation, combination, and internalisation.

The SECI model supposed that new knowledge is created from the conversion of tacit and explicit knowledge. This model includes four modes of switching

knowledge from one type to another by practising, learning, interacting, … etc. In the aim of creating new knowledge, applying, and sharing this knowledge within the company to ensure a wider effective use.

Figure 10. SECI model - Knowledge Conversion

A- Socialisation: At this point, knowledge is transferred from tacit to tacit. Individuals can gain this knowledge by observing, practising, interacting, and imitating other individuals. Nonaka's conception of the processes by which organisations promote knowledge creation is centred on social interaction. *"The interaction of experience, knowledge and rationality allows individuals to construct their own worldviews. However, unless these perspectives are articulated and amplified through social interaction, they remain personal". (*Nonaka's concepte)

It is about getting and acquiring knowledge from someone who has it by observation and interaction. The best example of Socialisation is doing an internship within a company, the trainee acquires knowledge through observation, imitating, and interacting with other working teams; or when a team work members share their opinions, problems, challenges, strategies and objectives to gain knowledge from each other.

B- Externalisation: It is converting a tacit knowledge to explicit. Externalisation is about codifying knowledge into tangible written documents, images, and any other easy to share knowledge materials. For example, writing a report after attending a conference or a meeting, this report then can easily be shared and transferred to the

other team members in the aim of reification of knowledge. Another example is knowing how to cook some traditional dishes, write down the recipe and share it with some friends.

C- Combination: Explicit to explicit. It is combining many forms of explicit knowledge together to create a new complex explicit knowledge. This explicit knowledge can be collected from different places such as documents, emails, reports, databases,… etc. The sources of this collected knowledge comes whether from inside or outside the company, to be then combined, modified and transformed to new knowledge. E.g. creating a complex document from simple documents then sharing this new explicit knowledge with the other work members.

D- Internalisation: the last step of the SECI Model is Internalisation. It is when converting explicit knowledge again to tacit by exercising. The best example is when someone drives a car for the first time after passing the theoretical examination, acquiring the explicit knowledge then practising to transform it into tacit knowledge. Another example that is mentioned earlier, is when someone learns a cake recipe from a cooking book and applies it for the first time. This Internalisation known as " learning by doing", is converting newly acquired knowledge into an individual's mind, explicit to tacit.

In conclusion, to achieve this knowledge conversion process in organisations some tools, techniques, and practices are needed. Thus companies must develop a specific environment and culture to effectively transfer, store, and share knowledge from individual level to an organisational level. Furthermore, each different step of knowledge conversion must be carefully managed, monitored, and codified at certain levels. Therefore, the knowledge creating, processing, and conversing process is one of the challenging functions of knowledge managers.

2.5 Knowledge Management (KM) & Knowledge Sharing

"Rapid changes in both personal computer technology and electronic communications during the past decade have given us the ability to create, gather, manipulate, store, and transmit much more data and information than ever before" (*Gupta, Sharma, & Hsu*). Over the last few years as technology evolves the concept

of knowledge management (KM) has rapidly grown among companies' managers. "*KM has been helpful in drawing attention to the value of knowledge and how it can be utilised for the benefit of organisations, individuals, and society.", (Jennex, 2007).*

The importance of KM is growing as the amount of data and information possessed by companies becomes enormous. However, data and information are not knowledge without being processed and knowing how to extract the value out of it. The KM process can be summarised as first collecting data and information, then processing them to obtain valued knowledge, and finally storing this knowledge to be shared and used later, either internally (between employees) or externally (with customers, suppliers, etc.). The KM function has been expanded to include the organisational learning environment, particularly through knowledge socialisation and externalisation, as well as the creation of a sharing knowledge culture.

Business managers realise that this open knowledge sharing is the key to have a long-lasting competitive advantage, they are trying to use this possessed knowledge in the most effective way. *"In the 21st century, successful organizations have to be competitive, fast paced, first-to-market, and global in nature. Creating strategic advantage requires a new type of organization that has the capability to create knowledge to maximize organizational competitiveness and strategic success"* (*Gupta, Sharma, & Hsu*). Knowledge is a resource that helps companies to implement strategies that allow them to increase their efficiency, the more the company's knowledge is rare and unique the more it gains a competitive advantage. Each company has many resources, it could be human resources, capital, technologies, etc. However, these resources cannot create a sustainable competitive advantage if it is not combined with unique knowledge.

In applying a KM system, companies preserve and develop the experience and the knowledge of their employees. On the other hand, it allows companies to maintain all the important written documents, therefore whenever employees search for any needed information they can find it easily and rapidly. KM has some tools that help to better manage and to store all the tangible knowledge in one place, which lead to opportunities for innovation, increase productivity and performance. These tools help to create, manage, control, and evaluate knowledge. The commonly used tool is an intern system called Knowledge Base (KB). In addition to the Customer Relationship System which helps KM directors to track their performance.

2.6 Knowledge Base

Knowledge Base (KB) is a system used by the employees of a company to create, store and share the quality information, structured and unstructured knowledge, organised in a form of library. "*KM is used to create knowledge bases that can be used to facilitate decision making and response generation in times of stress" (Jennex 2007).* This KB helps employees to organise, create, update, access, and share information and knowledge related to their job tasks and responsibilities. With a strong KB, employees can get accurate information easily which improves their productivity and makes them deliver faster services.

A KB includes different documents, knowledge articles, FAQs, manuals, photos, videos, and other types of useful content. The knowledge content is created usually by some of the employees in the aim of sharing it and making it accessible for all the employees and the concerned people. This open sharing knowledge allows companies to shift from the resources of tacit knowledge (unwritten and inside employees' minds) to explicit knowledge (written, codified, and easily shared with others individuals).

As of today, the competition between companies has increased, and maintaining customer satisfaction has become more and more difficult. Companies started to focus on the customer-centric business model. Meaning that they are trying to understand the customer's need and desire, then framing their products in a way that satisfies their clients. However, this cannot be done without creating a relationship and interacting with customers, here comes the role of customer relationship management (CRM). Creating a relationship with customers, building customer loyalty by listening to their needs or their feedback carefully, valuing each customer as if he or she is the only customer by analysing their behaviours and knowing their needs.

CRM services allow some companies to manage all key principles ,that they follow, when interacting with their customers in order to create a good customer experience and have loyal customers.

2.7 Customer relationship management (CRM)

Customer relationship management and knowledge management are tightly interconnected. According to *Jennex, "The KCRM initiative was targeted at achieving an integrated view of customers, maintaining long-term customer relationships, and enabling a more customer-centric and efficient go-to-market strategy".* CRM provides companies with some data that is processed to become information. This data is essential for the KM as well as for sales representatives. This data is collected across different channels, phone calls, SMS, emails, social media, … etc. Then all this data is gathered in one place to facilitate the access, often cloud-based, called CRM software.

CRM focuses more on the interaction with customers. Whereas KM focuses more on employee knowledge-sharing between them and with customers in order to develop the business and satisfy customers. The key benefit of CRM is sharing customer information with employees by creating and updating customer contact files, recognise and personalise the customer relationship. Another point is to create, follow, update and solve customer demands with added value answers thanks to the knowledge content stored in the CRM. This way of knowledge-sharing was chosen by Hager because it is practical as these knowledge articles have very useful content that could be shared with Hager's customers, via email or via self-service portal, to solve their problems.

To sum up, neither KM nor CRM can stand alone to face the growing demands of a customer-centric business, they work all the way together to achieve the satisfaction and the pleasure of each customer. This satisfaction could be obtained by the customer service quality of answers and rapidity to solve the problems.

We have come to the end of chapter 2, which includes all the covered concepts in this paper from the literature point of view, all the concepts linked to the research, and the most common models illustrated in figures. However, as reality is different from theories, a study was conducted by the researcher in order to understand the current situation, measure its efficiency, and compare it to theories. The following chapter describes in detail the methodology that was followed in the research in order to get the best results.

Chapter 3 – METHODOLOGY

In this chapter, the research methodology that was used, the target population, the data collecting method, and the data analysing method will be presented. The study was conducted to identify and collect data that was analysed in order to understand the situation. Getting some answers from the respondents point of view which could answer the research question. The collecting data is useful to know how to improve the conditions of knowledge sharing, to understand what are the main barriers and how can a structured knowledge-sharing culture be created.

3.1 Research Design

Before starting any research, the researcher should start observing the surrounding environment. Observation is an important part of any examination. Consequently, starting the research at Hager was by observing and analysing articles published on the current knowledge base in many workshops with some members of the Technical Support Team. The result of this analysis was that a lot of these knowledge articles were published on the CRM in an incorrect or unstructured way which hinder their accessibility. There is no uniformity in the process of creation and there are no tools to measure the efficiency of the process. This absence of the uniformity means difficulties accessing and finding the needed article on the CRM once needed. From this observation the idea of the research was formulated into answerable question: **How can knowledge sharing be structured within a company.**

In order to answer this research question, an online anonymous survey was conducted. The purpose of this research was, first, to audit and measure the current situation regarding knowledge sharing; second, to understand the needs and the opportunities of the targeted employees about sharing their knowledge and their professional experiences. To collect the needed data in the most effective way, a questionnaire of a mix between, qualitative and quantitative, was conducted.

This specific type of research was chosen because through such surveys the answers would be totally anonymous. Therefore, our targeted population felt free to reveal their ideas, be more honest, and say what might not be said during interviews.

Furthermore, to gain time-efficiency. Creating a 3-minute survey and sending it to the target population allows them to respond when they have time, providing more accurate answers and do not feel rushed as in other researchers' methods. The only issue with surveys is that people might ignore responding to the questionnaire, but this issue was avoided by sending a reminder after a few days.

On top of that, some of the survey questions were open or had a comment area, where the targeted population could write their opinions or any other additional information (see appendix 1).

3.2 Research Population

A group of the Technical Support (TS) “level 1” team members participated as respondents in this study. This specific sample of employees was chosen as a target because this team has a direct connection with Hager’s clients, such as electrical installers, to solve their technical issues. Thus they have a lot of knowledge inside their minds, sometimes they share it with their colleagues and even with clients via different channels. However, the purpose of the conducted study was to know how the TS team share their knowledge and measure the efficiency of the structure.

This Technical Support team combines experts on Hager’s products. However, the level of these expertise varies from one employee to another depending on his/her specialization and work experience. For instance, in France the Technical Support team consists of 15 people and only two of them are experts on Hager Witty, which is a charging station for electric cars. These two employees know more than the other team members about this product, and vice versa for other Hager’s products. The strategy that has been adopted is to specialise every few agents by theme. That is why sharing knowledge between these team members is essential in order to fill in the gaps between employees and to have customer service with the same efficiency and quality. Today, there is a knowledge-sharing between them but it is not structured, nor organized. Knowledge-sharing is happening in a partitioned manner depending on their colleagues requests, their knowledge and the complicity of the products.

When a customer has a technical issue he/she calls the Technical Support team asking for help. The employee treats the demand as soon as possible and registers

the customer demand as a case on the CRM. Whenever an employee from the Technical Support level 1 (L1) cannot solve the problem, he/ she escalates the case to a colleague from level 2 (L2), see *Figure 5. Customer Support Levels.* The L2 members have more experience and the needed skills to solve the issue, if they cannot find a solution for the problem the case will be escalated to the last level (L3) to be solved. However, once the case is escalated it takes more time to be solved. Consequently, sharing knowledge between the L1, L2, L3 team members is fundamental to avoid escalation, solve technical issues rapidly and efficiently. Subsequently, improve customer satisfaction and loyalty to the brand.

In order to increase the size of the sample population and to enrich the content of the study, a comparative methodology was applied. The survey was sent by mail to the French TS team as well as to their counterpart in Hager Sweden, which made the total population around 30 employees divided into separate countries. This particular team based in Sweden was proposed by the company because their working assignments are similar to those in France, therefore the comparison was easier and fairer.

3.3 Data Collection Method

The data was gathered from the answers of the respondents through an online survey created via *"Surveymonkey"* and sent by email to the target population. The conducted survey was designed as simple as it could be. It was a mixed survey consisting of 10 questions, divided in two parts. The first part is the quantitative, which contains some questions written in a reduced form (e.g. multiple choice and tick boxes). These questions were designed to generate quantitative data about the sample's routine and practices that could be measured and analysed in a form of statistical data. On the other hand, the survey had some open-ended questions where employees were encouraged to express their opinions, motivation, and needs in terms of knowledge-sharing. Therefore, the conducted survey is a mix between qualitative and quantitative study.

3.4 Data Analysing Method

The collected data was prepared prior to analysis. As mentioned before, the data was collected through a mixed qualitative-quantitative survey. Therefore, the collected data was analysed mostly on quantitative methods (based on numbers and statistics), in addition to the qualitative method (based on the text and written answers) for the last part of the survey. The survey was done via *SurveyMonkey* that provides a variety of helpful analysis tools. While the analysis was done on Excel (see appendix.2)

The main purpose of the analysis was to have facts and figures to answer the research problem and to propose the best solutions based on it. This method was chosen in the aim of getting totally anonymous answers. In order to know how long the population has been working in the company, how they acquired the necessary knowledge, how they share it with their colleagues or are they willing to share it. In addition to knowing their opinions about the main barrier to knowledge sharing and their needs concerning this subject. Using this method specifically allows the researcher to get an amount of data in a short time.

On the other hand, as it is anonymous, the targeted population answers the questions honestly and says what might not be said in an interview for example. This discovered truth helped get the best solutions which were presented in the next chapters.

Chapter 4. ANALYSIS OF THE RESULTS

The respondents of the survey were 22 people of the Technical Support Team who are located in two different countries, France and Sweden. The aim of the study is to know how employees share their knowledge, what are their needs, to have a clearer vision about the current situation concerning knowledge-sharing, and to measure its efficiency and its structure.

Some of the questions were optional, therefore the number of answers varied from question to question. Some of these results were predictable, while others were not.

The target population is working as a team but their experience in this position is varied from one employee to another. In France (FR), 50% of the team have been working in this position for more than 10 years. While in Sweden (SE), the team has less experience, 57% of the team members have less than 2 years of experience in this position.

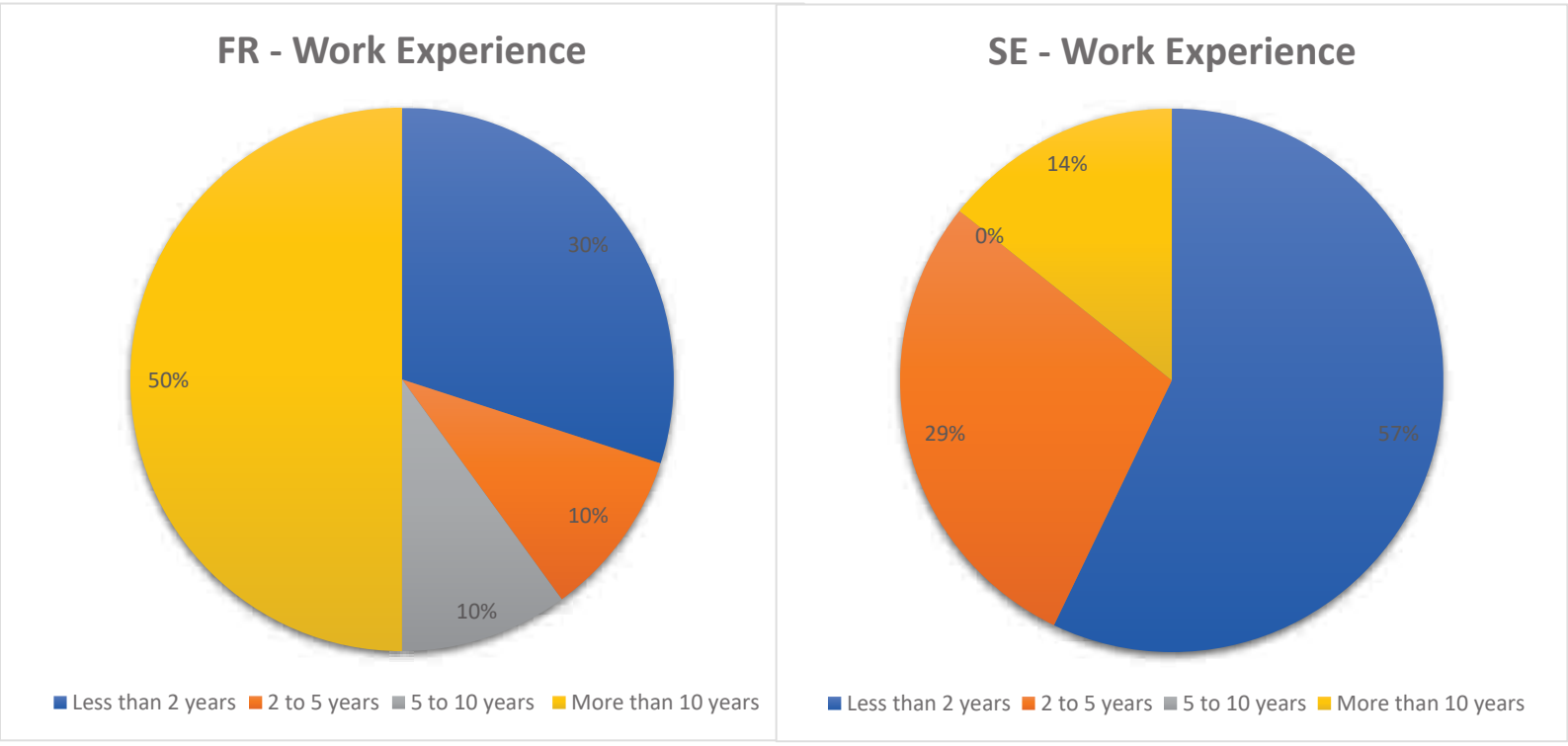

Figure 11. Work experience of the target

In the same survey, employees were asked about how they acquire the necessary knowledge or skills for their current assignments. 38% in FR and 18% in SE, answered that they acquired it by their studies. 38% FR/ 36% SE acquired their knowledge by internal professional training, and 24%FR/ 45% SE gained this possessed knowledge by external professional training. In case the needed training expertise is available in the internal company but employees move to the external training, that means there is a loss of time and money.

The way and the channel that the targeted employees use to share their knowledge are various too. According to the survey, 38% FR/ 59% SE share knowledge with their colleagues by email or via Teams. While 26% FR/ 23% SE, share their knowledge during meetings, demo, training, etc. Whilst 18% SE to 24% FR of knowledge is shared in an informal way (during lunch or coffee breaks). However, only France team, 12%, share knowledge by creating French articles on the CRM.

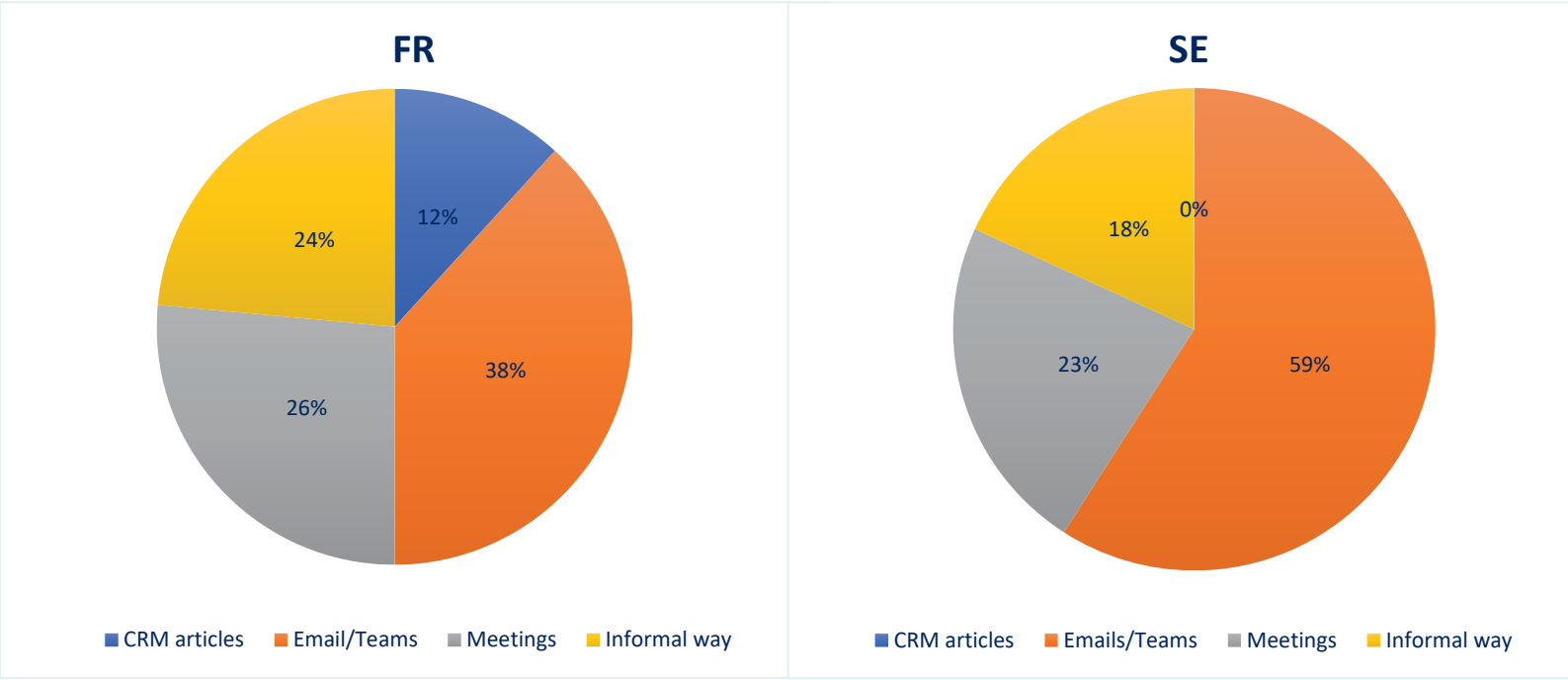

Figure 12. target's knowledge-sharing methods

As a reminder, the concerned company use the CRM as a knowledge base and all Hager's branches in Europe has access to this knowledge base.

Employees were also asked about the purposes of using CRM. The answer of the Swedish team members was: 50% of them use CRM to create cases, as explained before, a case it is when a customer calls the TS team, the employee in this situation will create a case on the CRM to register the customer call purpose. Whereas, 40% of the Swedish members use CRM to search for information, and 10% to create knowledge articles (despite the fact that in the previous question no one confirmed sharing knowledge through CRM).

In France, 50% of the target team use CRM to create cases, 27% of them use CRM to search for information, 27% to create knowledge articles, and 13% clarified that they use CRM for other purposes, such as tracking the Key Performance Indicators (KPIs).

When the TS teams were asked about the way they use to inform their colleagues once they share any new documents, the answer of the two teams were almost the same: 35% of employees inform them orally. 38% of the TS team in France and 35% in Sweden send email to their colleagues to tell them that a new document was shared, and 27% to 30% of employees inform their colleagues during meetings.

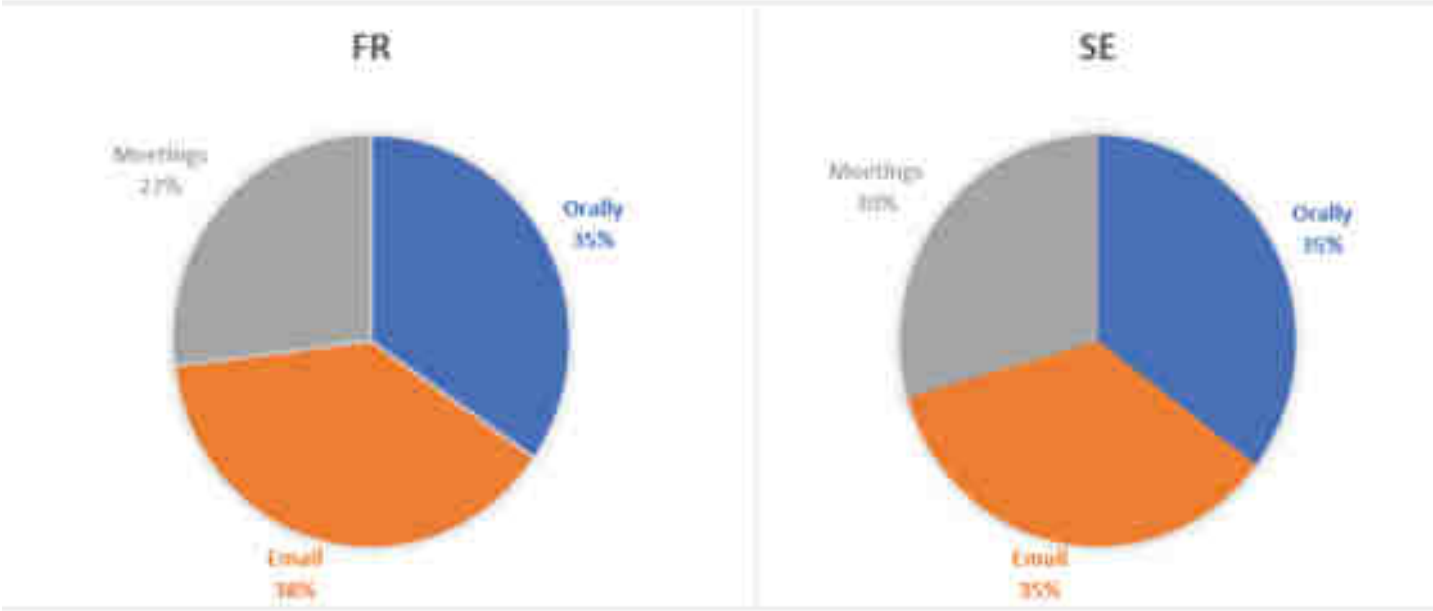

Figure 13. The way TS teams use to inform their colleagues

After employees are informed that one of the team members has shared a new document or a new knowledge, the question will be: do they read this document? To get the answer, they were asked about their reading frequancy. 22% FR/ 14% SE of the employees said that they read the new shared documents once a week. While, 33% FR/ 42% SE of them said that they check the new shared information once they are notified. 44% of French team and 28% of the Swedish team read the new shared documents once told by their colleagues. However, 7% of the SE team answered that they do not read at all the new shared knowledge.

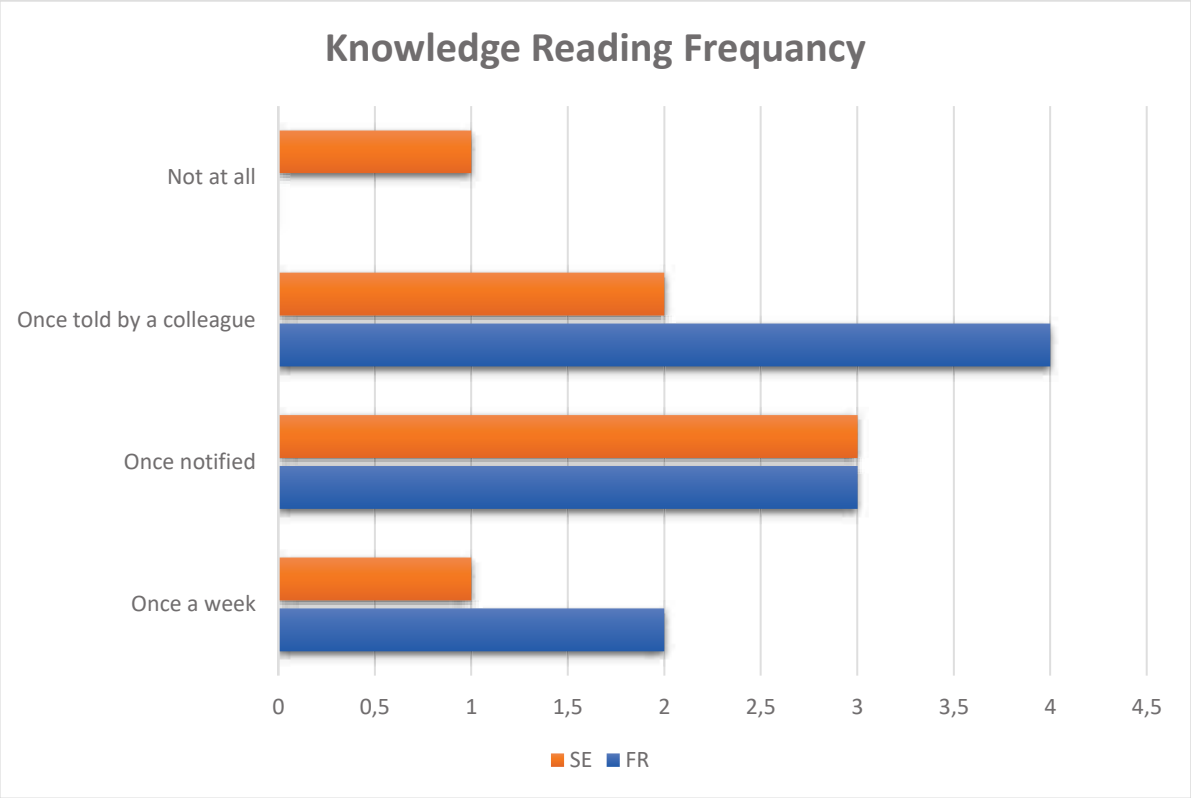

Figure 14. Employees reading frequency of the shared knowledge

In the same conducted survey, some of the employees expressed their real needs for high professional trainings *(see appendix 1.)*, saying that they need: "*Charging station training…", "Follow-up of "quality" information when problems are discovered", "Training on IRVE product", "I would like to know more about products to connect the home", "different training according to the mission, (EVCS and ip for example)".* After some investigations done by the researcher, these types of trainings can be done at Hager but people who have the capacity to train (the people who fabricate the products) are not free, they do not have time to train the TS teams. "today there is no training, we are self-training" as one of the TS team indicated.

Although, employees were asked about their willing and the way they want to share their knowledge, they answered saying “yes” but “to be organised by the company”, “I would like to be able to easily create small, fun training modules (quizzes, videos, etc.)”, “with what every colleague is in need of information about anything I can.”, and “by email, Teams, etc…”. According to these answers, employees willing to share knowledge. However, the procedure should be easy and organised by the company.

The last question was about the main barrier of knowledge-sharing, in their opinion. 57% FR/ 67% SE of employees said it is about the lack of time. While 22% FR/ 33% SE confirm that the lack of awareness about the importance of this knowledge-sharing is the main barrier. 14% of them said that employees do not know how and where to share their knowledge, and 7% said that it is because of *“the lack of ergonomics of the tools used and the lack of time allocated”.*

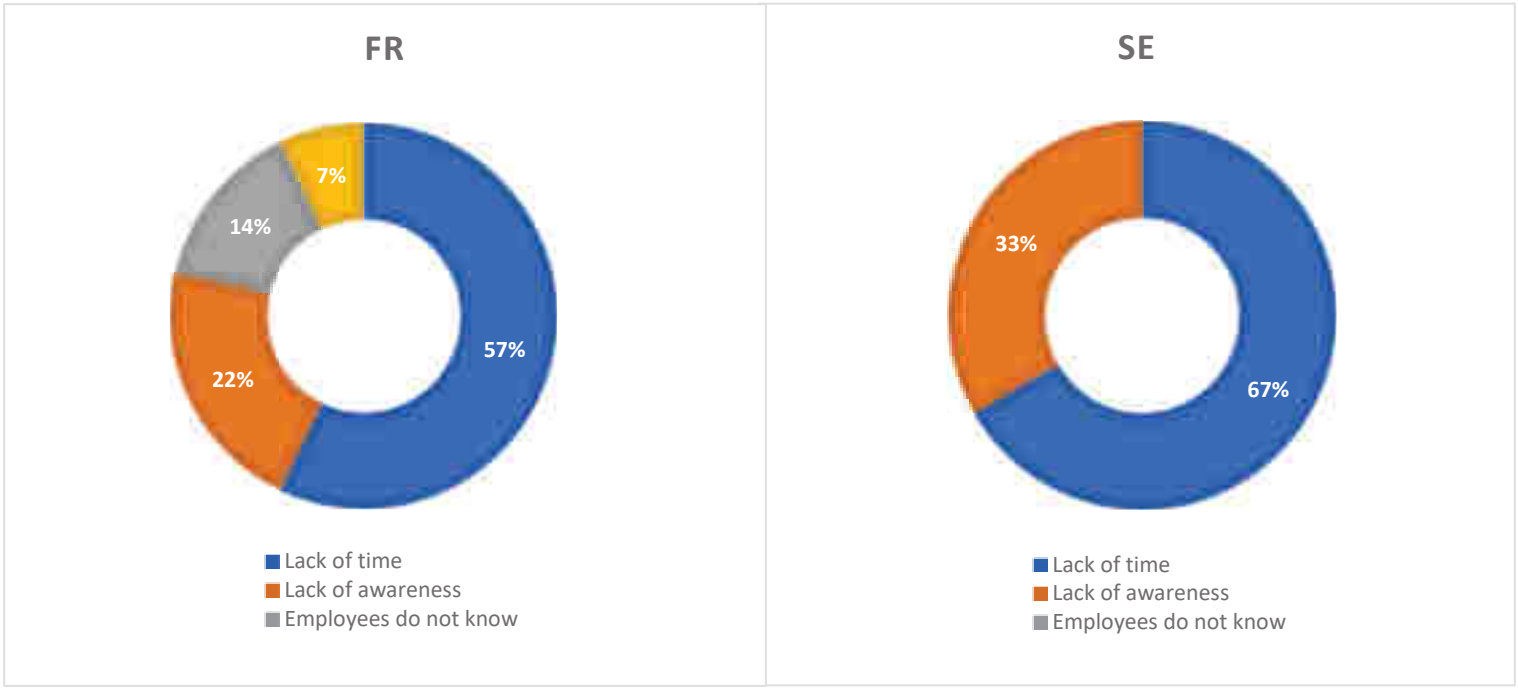

Figure 15. The main barrier of knowledge-sharing

Coming to the end of the analysis, we realise that sometimes despite the differences between these two teams, their main issues are similar, such as the way they share knowledge, the use of the CRM, their need to be trained, blaming time, etc.

Chapter 5. DISCUSSION

5.1 Reality vs. Theory

The previous results support the hypothese that knowledge-sharing at Hager Group is unstructured. Knowledge exchange among organisational employees is a serious part of the management process. However, *"In order for an organization to be able to manage knowledge, it must have knowledge to work with in the first place" (Jennex, 2007)*. Therefore, the company has to, first, discover knowledge and create an environment of trust in the intern *"Knowledge sharing can be realized when the involved business partners successfully develop trust and build long-term partnerships"* (Chen, Lin, & Yen, 2014). Second, evaluate the communication and the interaction between the employees which creates a culture of knowledge where employees share all their knowledge instead of keeping it in their minds ""*to access knowledge it is required to engage in social interaction." (Brauner & Becker, 2006).* Third, measuring the company's abilities to provide employees with all the needed implements to share their knowledge, in terms of tools, documents, training, budget, etc. On the other side, employees should be motivated and willing to participate effectively to create this knowledge sharing culture. Therefore, the company and the employees must work hand in hand until creating this new culture and overcoming constraints.

As a result, Knowledge management should be divided into two parts: material and non-material parts:

- The first part, the material, is to provide employees with all the needed IT materials and technological equipment that allows them to communicate or to telecommunicate better, codify their information and to create a unique shared database that gives them the possibility to share their knowledge easily with the other employees and to access them rapidly whenever needed. As we have seen, sharing knowledge between employees is the key to creating the difference in the market, thus the technological tools facilitate such exchanges especially in the age of digitalisation.

After observation, employees at Hager Group have the needed materials, tools and also have access to the internal knowledge base on CRM. This knowledge base should be the only cloud system where employees of customer support from different Hager's branches can find and share the needed document. Whereas in reality, there is no uniformity in the used KB, nor uniformity in the used language. On the CRM, most of the knowledge articles are published in French which hinder the share with employees in other countries who do not speak French.

Furthermore, the local Technical Support team in France created their own knowledge base where they can share and store documents. This team claimed that using this local knowledge base is easier to access to the needed document, while in the CRM with the huge amount of information the search is more difficult. "if now I have a question, I do not look for the answer in the CRM, I search on our knowledge base as it is created by my team, I know where I can find the answer or the document…it's faster" as one of the team members declared during a workshop.

- The second part, the non-material part is related, first, to the Human Resources managers and to team leaders. Their role is to create a trust environment between employees, motivate them to participate and provide them the necessary training, tools, etc. Second, is it related to the employees' intention to participate effectively by sharing all their expertise, skills and experiences, and being really willing to learn from others' experiences.

The workplace environment should be welcoming and comfortable for employees. When it comes to creating a culture of collaboration and knowledge sharing, physical space is crucial. The lack of conference rooms, well organised open space working place, or informal spots for a coffee or after-lunch talks indicates that the organisation does not value knowledge-sharing.

At Hager, there is a restaurant and a cafeteria where employees can have time together. However, there is a lack of enough conference rooms, the working place is open but the team workers are mixed which obstruct the direct knowledge-sharing.

Another point is that Hager Group gives real attention to the professional training, consequently an internal E-learning platform was implemented last year called *"Hi! Hager University".* The purpose of this platform is to facilitate access to information,

acquiring knowledge, and developing opportunities. Hager learning hub includes different training topics about personal development, soft skills, leadership skill, project management, even some courses to learn languages divided in many levels and includes many languages (English, French, German, Spanish and Italian). To provide a full digital learning offer, Hager's employees can also find a full training package about their daily job tools Microsoft Onedrive, Teams, and Sharepoint.

Figure 16. Hi Hager University – Home page

This attempt of implementing such an e-learning platform is really important for the development of the employees as well as the company. One of the weakness points is providing such content without follow-up which employee needs which training or even without sensiblising and tracking the knowledge sharing among employees.

To sum up, at Hager there are some attempts towards better knowledge management. However, these modest attempts are not enough to reach a structured knowledge-sharing culture. The creation of such culture needs coworking, support from the company side and motivation from the employees side. This is the real dilemma that is going to be resolved in the next chapter, in order to establish an effective knowledge sharing culture within the company **in a structured way.**

Chapter 6. RECOMMENDATIONS

The process towards a structured knowledge-sharing

After observing the situation and analysing the answers of the conducted survey. It is clear that Hager has the needed capacity managerial, and provides many infrastructure and technological materials to the employees. However, the point of weakness is the process of knowledge management and lack of resources especially the absence of scheduled time for knowledge sharing.

Identifying an adequate knowledge management process is crucial to sharing knowledge effectively. Creating such process starts from:

- **Discovering** the possessed and the potential knowledge resources, by identifying the individual skills of each employee and his/her potential capacity. As well as examining the job conditions and create a trust work environment which has a real impact on the employees' motivation, loyalty, and productivity.

- **Sharing the discovered knowledge** by implementing effective communities of practice, structured training, and internal learning platforms. In addition to storing the shared knowledge in an internal knowledge base to make it accessible to everyone.

- **Managing knowledge** by motivating employees to always share their skills and avoid monopolising their knowledge. Remaining shared information up to date, measuring the functionality of the current KM process, strengthening the communication and the contribution among team members.

Following an organised process reduces the danger of losing valuable information, tracking each knowledge article, checking who has access to this information, and knowing when it was created, published and edited by who. Here are some initial steps to follow in order to have a structured knowledge-sharing culture within the company:

6.1 Creating a High Trust Working Environment

According to the Training and Development Manager at Hager Group *"there is a risk that more than the third of employees is leaving the company in the ten next years, between retirement and resignation".* Creating a high trust working environment minimises the probability of the early departure of employees and makes them feel satisfied and more engaged.

One of the ways to demonstrate trust to employees is to always communicate with them, creating collective activities, having lunch or coffee regularly together in order to create a tight connection between them. Showing employees that they are trusted, they are free to talk about what is inside their minds and to share their ideas among one another. Providing interest, showing employees that their efforts are appreciated and increasing worker collaboration to increase trust.

6.2 Providing Professional Training

Training employees is necessary to improve their professional and personal development by learning new skills via professional training. In France, the employer is obliged to train the employees to ensure their continued employment. However, learning must be accomplished on a regular basis to maintain employees up to date on the latest products, solutions and technological subjects related to their jobs. Because of technology, the job environment is developing faster than ever before. Every day there are new products, new problems, new solutions and of course new knowledge to be shared. Thus, the more knowledge sharing becomes a routine, the more employees will be willing to participate.

The company should give attention to the importance of mentoring and the transferring of knowledge from the senior workers to the juniors who have a modest experience in this field. In this way, the less experienced employees can be upskilling and up to date with all the needed information thanks to the continuous communication with the most experienced member of staff.

This informal training method also works both ways. In today's technologically advanced world, the younger employees can provide senior employees with the

needed skills related to the new technologies and informatic. This co-relation makes individuals feel supported, more belong and loyal to the company. It can also improve productivity and self-confidence. This is an excellent method for easily learning, continuously developing the skills of your workforce, retaining them up to date, and encouraging innovation.

6.3 Managing a Community of Practice (CoP)

Community of Practice known also as CoP is a collective group of people who share the same goal. This concept was defined by (Jennex, 2007) as *"CoPs are groups who may or may not be in the same organization. What makes them a CoP is a shared common interest in a knowledge domain*". Members of CoPs confirm that they are stronger as a group than as individuals. Being a part of a community of practice in a company allows employees to be surrounded by people who are willing to learn and to share their expertise which help to fill in the gaps between the employees, improving the personal and the professional experiences, maximising the skills and the motivation of the collective workforce among group members as a whole. Thus, it is important to schedule some time each month (two hours a month for example) for a "knowledge-sharing and learning" session. Where employees at Hager, who are working somehow in the same field can be found to talk about their professional problems, solutions and expertises. In this way, employees feel more involved in any activity or projects as they are updated at every stage.

On the other hand, as a community, solutions for some problems can be found easier, as everyone expresses what is inside of their mind during brainstorming sessions, which improve the productivity of workers.

In a managed CoP, knowledge can be identified within the community and transferred later to the other CoP members who require it, *"CoPs self identify critical knowledge and transfer it to those in the CoP that need it."* (Jennex, 2007).

The company on its side has to support this community by all the possible sources, starting by providing the needed equipment because communication cannot be succeeded without having the required technology that makes collaboration easier *"CoPs need technology that facilitates CoP communication and collaboration. Wikis and other open source tools as well as knowledge portals are examples of technology used by CoP" (Jennex, 2007).* These technologies might be an online platform to share

and store their knowledge where employees can simply create content which is accessible for every community and non-community member.

Technologies might also include all the needed equipment to participate in online video calls when regular meetings in physics are not possible, for pandemics reasons or for long distance team workers (which is the case at Hager group, team works are located in many cities and many countries).

6.4 Motivating Employees

Sharing knowledge is not truly common between employees. According to the conducted study, 57% of the survey respondents in France indicated that, in their opinion, the main barrier to knowledge sharing is lack of time. Saying that they do not have time to share their knowledge, means in reality that they are not willing to share their knowledge and it is not at the top of their list of priorities, as well as their managers priorities.

Employees have to stop blaming time, start to make an effort to manage their working day, find some time for effective knowledge sharing and put it at the top of their priorities list. In order to attract their attention to the importance of this issue and to keep them interested, companies have to reward their determined attempts, thus remain motivated in sharing knowledge.

This motivation can pass by different ways such as providing bonuses, incentives, or gift cards to promote them to their effective knowledge sharing within the team work. Another way of motivation could be simply to publish an appreciation post on the company's internal platform, or to award the most active sharing employee a distinguishing mark or a nickname such as *"The Employee of The Month",* and to be transferred every month from one person to another which will create a kind of honourable competitive spirit between the employees. Bringing to light a person's achievements makes them feel appreciated and keeps them motivated to continue this collective contribution. Companies can also create a related link between sharing knowledge and promotion. Imposing a rule in the internal regulations saying that staff members are promoted unless they can demonstrate that they have mentored a permanent replacement among the team members. In this way no one can have a

monopoly on such types of knowledge and they start regularly transferring knowledge to be ready for any coming promotion. Keep motivating employees until knowledge-sharing and mentoring become a routine, a culture and a self-sustaining.

6.5 Unifying the used knowledge-base

The last recommendation is, first, to have only one knowledge base well organised instead of using one general knowledge base (CRM) and many other mini knowledge bases created by teams members. Using one general KB gives employees an equal access to same knowledge. Second, try to publish the shared articles in English, which allows employees from other countries to read it. Publishing the articles in English could make create some obstacles for non-English speakers, however, the observation done on the two teams, if not all, but most of the team members speak English. Therefore, one could write it in English and the others translate it in the local language or vice versa.

To sum up, following these recommendations, creating high trust working environment, providing employees the needed professional training, managing a community of practice, motivating employees to share their knowledge with others, and using a unify KB, can paving the road toward a well-structured knowledge sharing culture.

CONCLUSION

To conclude, the conducted search aimed to investigate about knowledge-sharing among employees within the company. The data was collected from observation and an online survey sent to the target population. A comparison between the Technical Support teams in France and Sweden. The results indicate that these teams members share their knowledge in an unstructured way, which confirm the problematic of the research, **knowledge sharing between Hager's employees is non-structured.** Therefore, after analysing the collected data and according to the observed situation, some recommendations were proposed in order to answer the research question about **how can knowledge sharing be structured within a company.**

Applying these recommendations, about creating a high-trust working environment, providing professional trainings, managing a CoP, motivating employees, as well as unifying the used knowledge-base, could help Hager Group to benefit from the possessed knowledge and spread it to the maximum. To better understand the efficiency of these solutions, future researches need to determine the effects of these applied process of knowledge-sharing within the company.

While conducting the study, the number of participants was expected about 27. However, the final respondents were 22. There was a limitation data collected, this might be that the participants were not interested and mainly because it was summer holidays time. Therefore, it is suggested that next studies focuses more on the qualitative studies, such as making some interviews with the target population.

At the end of the research, hoping that the result will lead to a positive impact on the concerned company, that could benefit from the recommendations of the research, shedding the lights on some problems observed by an a external point of view.

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Appendix

Appendix 1. Survey questions

1- What assignments are you working on?

- Customer technical support
- Customer training
- Team management
- Claim handling
- Product defect handling
- Product exchange

2- How long have you been working in this position?

- Less than 2 years
- 2 to 5 years
- 5 to 10 years
- More than 10 years

3- How did you acquire the necessary knowledge or skills for this position?

- Your studies
- Internal professional training
- External professional training
- Other (to be precise)

4- How did you share your knowledge with your colleagues?

- Creating articles on CRM
- Sharepoint
- E-mail
- Teams
- Meetings/ training/ demo

5- How do you inform people concerned?

- Orally
- By email
- During a meeting
- I don’t inform them

- Other (to be precise)

6- How often do you read your colleagues' knowledge shares?

- Once a month
- Once a week
- When I am notified
- When my colleague tells me
- Not at all

7- You use CRM to…

- Create articles
- Create cases
- Search for information
- Other (to be precise)

8- Will you be willing to share your knowledge? If so, which knowledge and how?

9- What are your needs in terms of knowledge sharing? (on which product, which solution, support, training, etc.)

10- In your opinion, what is the main barrier to knowledge sharing?

- Lack of time
- Lack of awareness of the importance of knowledge sharing
- Employees do not know how and where to share their knowledge
- They are not allowed to spend time sharing knowledge
- Other (to be precise)

Appendix 2. Survey analysing method