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# **Knowledge management in a business model transitioning consultancy firm**

*Master's Thesis in the Master's Programme  
Management and Economics of Innovation*

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Department of Technology Management and Economics  
*Division of Entrepreneurship and Strategy*  
CHALMERS UNIVERSITY OF TECHNOLOGY  
Gothenburg, Sweden 2019  
Report No. E2019:007



MASTER'S THESIS E2019:007

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## **Acknowledgements**

We, the researchers, would like to thank our supervisor Sarah van Santen for her patience guidance and counselling. We would also like to thank the firm and which we conducted our research, and all the people who agreed to be interviewed, whom which we cannot name for secretive reasons. Finally, we would like to thank Chalmers Tekniska Högskola for allowing us the possibility to conduct research and providing us our supervisor. Thank you.

## **Abstract**

In this report the researchers have dived into a large international consulting firm's knowledge management strategy and its systems. Through thorough interviews the researchers have mapped and evaluated the firm's knowledge models, techniques of knowledge creation, its organizational learnings and knowledge integration. How the firm's corporate culture and its knowledge management systems interact is also investigated. The report is concluded with a discussion about the effectiveness of the firm's knowledge management and what the firm needs to do in order to fully enable its consultants' capacities.

*Keywords: Knowledge management, Knowledge management system, Knowledge models, Organizational learning, Change management and Corporate culture.*

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# 1. Introduction

*This section is intended to introduce the reader to the direction of this study. The following paragraphs contain problem description and arguments to why this area of research is of interest, ending with the academic research question chosen to investigate.*

A professional service firm (PSF) is a firm that creates value for its customers by letting their employees carry out professional services. These services may include accounting, auditing, management and engineering consulting among many other (Von Nordenflycht, 2010). The birth of the PSF industry is originating from greater knowledge in specific areas compared to what the client has available, including the consulting industry. There are many different types of consulting firms in many different sectors and they all have something in common which is that their main bulk of value stems from the knowledge of their consultants and in part from other intellectual properties.

The consultancy industry is an extremely competitive environment where ever changing technologies and methods set great demands of competence on consultants and their companies (Shilling et al., 2012). According to Von Nordenflycht (2010) knowledge intensity is a key characteristic of any professional service firm. It is through the knowledge, expertise and experience of a PSF's employees that the firm creates value for their clients. Historically, professional work has revolved around the professional's autonomy as a problem solver. However, with today's customers' increasingly complex problems and knowledge in many professional fields becoming more specialized the need to bring professionals together with many different knowledge backgrounds become increasingly important in order to solve client problems. This is the heart of the transition both customers and consultancy firms are undergoing. The consultancy industry is today in a transition phase where customers have started to outsource more and more projects and buying whole solutions instead of the traditional model of buying single consultants and doing more things in-house (Interview B, 2018). This transition has put pressure on the consultancy firms to change their business model in accordance to their customers' changed demands. A high degree of employee turnover is also present in the industry, leading to firms constantly having to replace old employees with new recruits (Interview C, 2018). In this process vast amount of knowledge is constantly being lost, knowledge which then must be regained by the new recruits. In an industry where the value of a firm is equal to the sum of its employees' knowledge, the high turnover emphasizes the need for excellent knowledge management in order to ensure a firm can deliver what it promises and what its clients demand (Schilling et al, 2012). The knowledge foundation i.e. the sum of the employee's knowledge, is highly connected with the strategic choices of the firm. The foundation makes organizational structures, client- projects and relations possible. However, the knowledge base is dependent on the strategic choices the organization make regarding business decisions and targeted clients, i.e. that ongoing client projects shape the knowledge foundation in the organization (Shilling et al, 2012). The strategic decision of switching from single consultants per hour to large in-house projects adds complexity in the sense of new demands for a different kind of knowledge base. If a strategic- or organizational change demands a difference in quality, form or state in the alignment towards the external environment

should therefore be intertwined with work- structures, processes and the knowledge base of the firm (Shilling et al, 2012).

The companies that remain successful are the ones that consistently generates new knowledge, spreads it throughout the organization and rapidly incorporates it in new products and services (Nonaka, 1991). Knowledge is described by Shani et. al, (2009) as “the beliefs and commitments created by the flow of information”. A distinction between two kinds of knowledge is widely made since they were first distinguished by Polanyi in 1958: explicit knowledge and tacit knowledge (Polanyi, 1958). Explicit knowledge is codifiable information, this information can consist of data and statistics and detailed descriptions of projects and products. What characterizes explicit knowledge is the fact that it is codifiable and can be put into words and numbers (Helie, 2010). This makes it easy to handle and manage since it can be categorized and sorted to be easily accessed. Tacit knowledge on the other hand is vaguer, it is characterized by the fact that it is hard to put into words and numbers, or even be properly described. This knowledge is individually built up over years of experience and is, because of its nature, hard to translate and carry on to others in an organization. Grant (2010) makes a distinction between the two types where tacit knowledge is *knowing how*, and explicit knowledge is *knowing about*. He argues that explicit knowledge, which is *knowing about* facts, theories and sets of instructions, can easily be communicated at a negligible marginal cost, while *know-how*'s such as riding a bike or playing the piano, only can be acquired through practice. Tacit knowledge is, because of these facts, extremely valuable for companies and making the retainment of it within companies of utmost importance since its nature of being resource-heavy to obtain (Nonaka, 1991). Grant (2010) further describes Knowledge management as an “*umbrella term that comprises a range of organizational processes and practices whose common feature is their concern with generating value from knowledge*”. He argues that while the term is relatively new, originating from the early 1990's, its content is not: R&D, management information systems, employee training and managing intellectual property are all long-established organizational functions, and even strategic planning could according to Grant (2010) be regarded as a form of knowledge management. Grant (2010) means that the unification of a firm's tacit and explicit knowledge “*defines their business model and is a central determinant of their strategy*”.

Research has suggested, according to Ollila et al (2015), that while the importance of IT systems and structural arrangements is prominent in the knowledge management of PSFs, there are limitations to its effect in supporting the leveraging of an organization's collective expertise and instead points towards “softer” aspects such as organizational culture and power structures. An integration of many different systems, structures and “softer” aspects is necessary in order to properly retain, spread and integrate dispersed knowledge throughout a PSF's organization (Werr, 2012). This is a core ability of any PSF, the ability to bring dispersed knowledge together and use the accumulated knowledge of the organization to solve difficult and complex problems clients present (Werr, 2012). Now the pressure is on the consultancy firms to put together skilled expertise groups of people with backgrounds in many different fields in order to solve its clients increasingly complex problems (Hargadon & Bechky, 2006). This transition puts

pressure on companies to change their way of thinking about knowledge management, and this report will investigate the challenges they face.

*Research question; What knowledge management challenges does an engineering consultancy firm encounter when transitioning their business model from simple staffing to offer complex solutions?*

## 2. Literature Review

*This chapter presents the theories that lay the foundation for this report. First knowledge management is explained and how it is applied through IT-systems. Afterwards organizational culture and change is displayed due to the crucial roles these two concepts play in knowledge management.*

### 2.1. Knowledge Management and IT-systems

Knowledge is a key characteristic for all PSFs, and knowledge management thus becomes an important factor (Von Nordenflycht, 2010). Knowledge management (KM) is a multi-dependent discipline integrating organizational community, business strategy, learning, collaboration, expertise and technology. It can be thought of as a design of processes, tools and structures with the intent to increase, renew and share the use of knowledge. KM is about encouraging individuals to communicate their knowledge by creating environments and systems for capturing, organizing and sharing knowledge throughout an organization (Halawi et al, 2005).

The core of KM is to deliver approaches of how to integrate the correct person with the correct knowledge, in the right format and at the right time (Halawi et al, 2005). KM, according to North et al (2018), enables individuals, teams and whole organizations to systematically create, apply and share knowledge to achieve their operational and strategic objectives. Wiig (1997) states that the objectives of KM are to make the organization make decisions as intelligently as possible in order to secure its viability and overall success, and to overall realize the best value of its knowledge assets. To reach these objectives, organizations must build, transform, organize, deploy and use knowledge assets effectively. One could thus argue that the overall purpose of KM is to maximize the organization's knowledge-related effectiveness and returns from its knowledge assets and to renew them consistently. Wiig (1997) concludes by saying that KM is to understand, focus on and manage systematic, explicit and deliberate knowledge building, renewal and application. Knowledge is embodied in services, products and systems, it is the result of collective and individual learning. North et al. (2018) systematizes knowledge by means of a relationship regarding how management understands what knowledge is and why it is related to competitiveness. In order to create value, the right knowledge must be applied at the right moment to exploit new opportunities and solve complex issues which results in competence. These competencies are later bundled in order to reach uniqueness and a competitive advantage (North et al, 2018).

For KM to work organizations need to develop and ensure an adequate infrastructure is in place, which in theory might sound simple but the reality is that it often is quite complex (Halawi, 2005). The fast-paced development of business supported IT systems has allowed companies to explore KM solutions in the form of Knowledge Management Systems (KMS). Firms invest in a KMS with the same intention of any other information system; that value will exceed the costs (Santhanam & Hartono, 2003).

KMS is the use of modern information technologies (e.g. databases, the internet, extranets, intranets, agents) to support, enhance and systematize inter and intra firm KM (Alavi & Leidner,

1999). In other words, KMS refers to the use of information systems which is applied to manage organizational knowledge through storage/retrieval, transfer and application to finally create new knowledge (Alavi & Leidner, 1999).

KMS's help organizations perform four functions:

1. Intermediation: Connect employees with other employees. The interpersonal focus positions intermediation within the realm of tacit knowledge.
2. Externalization: refers to the connection of information source to information source. It focuses on explicit knowledge and organizes this knowledge according to some classification framework or ontology.
3. Internalization: refers to the connection of explicit knowledge to people. It involves extracting knowledge from the external repository to the filtering.
4. Cognition: which connects knowledge to process. It is the function of systems to make decisions based on available knowledge. (Frappaolo & Capshaw, 1999)

The most important aspect of building a KMS is to make it support the KM process and this process is highly dependent on the firm's overall KM strategy. Whether it is focusing on codification or personalization (Grover & Davenport, 2001). The codification strategy is in most cases utilized by organizations that sell standardized products. This strategy codifies explicit knowledge, later to be stored in databases for future repetitive usage. The personalization strategy is instead adopted by firm's that demand customized solutions and unique problems. The practical approach to KM in this type of strategy is where tacit knowledge is shared through personal contact. According to Turban and Aronson (2004) industries that require a lot of heavy research and engineering effort would in most cases need to apply a 50/50 hybrid strategy. Research also suggests that the role of IT and KMS has increased importance in regard to the codification strategy rather than the personalization strategy (Hansen et al., 1999; Brown & Duguid, 2001; McDermott, 1999).

IT and KMS does not generate knowledge by default, only if decision makers make sure that the knowledge management technologies are constructed with organization and culture in mind. Then will these systems be effective in transfer and exchange of knowledge among and between people (Silver, 2000). Historically have KM practices been associated with IT systems as the central instrument of capturing and spreading knowledge across an organization. Werr (2012) argues that the challenges do not rely on technical components such as IT – KMS, but rather in behavior of individuals and as more recent KM practices emphasizes interaction and shared practices of employees. Nonaka (1991) argued that computers are tools capable of processing vast amounts of information and human beings are the only ones that can be responsible of knowledge creation.

Later research by Nonaka et al. (2000) continues with saying that top managers need to articulate a vision i.e. Knowledge Management strategy for the firm and that middle managers or project leaders are the ones that dictate the knowledge creating process. Instead of only focusing on an advanced Knowledge Management system they highlight the importance of combining it with social interactions.

Like Nonaka (2000), Shilling (2012) continues to argue for that knowledge creation can be achieved by proper KM processes, organizational structures, reward, incentive systems and a common language which will engage professionals to seek and share knowledge through both shared practices and IT-systems.

## 2.2. Organizational Culture and Change Politics

There exist different opinions on the definition and elements of the term organizational culture but to most it comprises of the shared philosophies, ideologies, values, assumptions, expectations, attitudes, behavior and norms that knit a community together (Kilmann et al, 1986; Shani, 2009). Shani (2009, p. 358) states that organizational culture *“is much like air, it is everywhere we look, and it touches everything that goes on in an organization”*. Schein’s (1990) holistic definition captures the complex and multifaceted nature of organizational culture: Organizational Culture is *“a pattern of basic assumptions, invented, discovered, or developed by a given group, as it learns to cope with its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems”* (Shani, 2009, p. 428). There is some controversy about the role of organizational culture in its impact on organizational life and its ability to influence and lead corporate culture, however most scholars agree that organizational culture does play a major role (Kerr & Slocum, 1990; Shani, 2009).

It becomes apparent that a company’s norms and the way its employee’s cope and tackle problems they face is vastly impacted and influenced by the organizational culture present. For example, Ollila’s (2015) research on how to properly leverage a firm’s internal knowledge and expertise emphasizes IT-systems’ and structural arrangements’ role. But concluded that while these are important, the culture of an organization and other “softer” aspects such as power structures etc. must undergo change in order for new systems and structural arrangements to make an impact. Ollila continues to argue that her research suggests that these “softer” aspects actually can be more important for a company to meet its goals of leveraging knowledge and expertise than “harder” aspects such as IT-systems, structural arrangements and knowledge brokers etc (Ollila et al, 2015).

Organizations of all types and in all sectors at some point undergo change. Whether it is the customer base changing, the industry or simply on the company’s own behalf to renew itself, all companies must at some point make changes. Companies trying to change are, however, guided by theories of change that are, according to Beer et al (1990), fundamentally flawed. The common belief when trying to implement change is to start by changing the attitudes and knowledge of individuals. The theory goes, according to Beer et al (1990), that changes in attitudes will lead to changes in behavior, and changes in individual behavior repeated by others leads to organizational change. He compares the theory to a conversion experience, once people “get religion”, changes in their behavior will surely follow.

Beer et al (1990) argues that this theory gets change process exactly backwards. Instead of trying to change individuals' behaviors to undergo large organizational change, the more effective way is to put individuals in new organizational contexts, with inherently new roles, relationships and responsibilities. By doing this the company prevents the individuals of blocking change in their old roles and responsibilities. He means that this creates a situation that in a sense "forces" new attitudes and behaviors on people, which leads to the company-wide organizational change that was sought after (Beer et al, 1990).

When trying to implement changes relating to knowledge management many studies have shown companies have inner resistance to change (Hellstrom et al, 2001; Wickenberg 2014). Power struggles can occur when senior positions lose parts of its seniority to new positions, which is an example in the *knowledge broker* model (Hellstrom et al, 2001). Beer et al (1990) also acknowledges that while his method of implementing change reduces the resistance to change, it is hard to fully overcome, and the way change is implemented needs to be tailored to each unique firm to be effective.

## 3. Method

*The following chapter gives a detailed description of the conducted method in this study. Starting with the research design for the overall methodology, followed by data- collection and analysis. The chapter ends with a discussion of methodology concerning transferability, credibility, confirmability and dependability.*

### 3.1. Research design

This research project was conducted at and in collaboration with a consultancy firm located in the Gothenburg region. This study looked in depth at one organization through its employees and got access to rich data, the study has therefore followed a contextual case study methodology (Easterby-Smith et al., 2015). Case studies traditionally combine different data collection methods and can be exclusively qualitative, quantitative or both (Eisenhardt, 1989). The authors follow a constructionist perspective i.e. they assume that there exist many different realities and several perspectives needs to be gathered through the collection from a diverse group of individuals and observers. The research is based on observations and interviews from a single organization and the data collection took place over several months. Furthermore, the data may include both present and past events that have occurred. Very early in the research process, the researchers deemed it necessary to conduct qualitative research due to the state of the firm but also to answer the research question which demanded a qualitative research approach with explorative interviews being appropriate. The data is analyzed with the Gioia method further explained in a subchapter.

Knowledge management as a field of study has been around for quite some time and cannot be deemed as nascent but it's neither a matured field, which speaks for an intermediate study approach as a methodological fit according to Edmondson & McManus (2007). Intermediate studies are in between the spectrum of nascent to mature study fields, and can use either qualitative-, quantitative methods or a mix of both. The intention with intermediate theory research is to draw from previous work and to use separate bodies of literature. The final purpose is to propose new constructs but also if possible, to show new theoretical relationships (Edmondson & McManus, 2007).

## 3.2 Data Collection

*The following section will give the reader information of how the two rounds of interviews were held and reveal the interviewee's role together with responsibility at the firm.*

### 3.2.1 Interviews

Both rounds of interviews were of semi-structured character since it allows for a more flexible approach but at the same time allow the researchers to have a topic guide involving open questions and key topics that needs to be covered during the interview (Easterby-Smith et al., 2015). Although after the 1<sup>st</sup> round and gathering of literature a new direction was made clear in terms of research for the study, so the interviews became a bit more structured for the 2nd round. This was in order to obtain appropriate information about the transformation process and knowledge management hindrances. Each question is of an open nature which is important to avoid influencing the answers from interviewees. It is vital with this kind of interviews that the interviewer listens to what is directly stated and at the same time tries to read between the lines by asking follow-up questions to confirm if the interpretation was correct (Patel & Davidson, 2011).

Each interview had the length of approximately 40 to 60 minutes and the researchers assigned predetermined roles to each other beforehand which is advantageous (Easterby-Smith et al., 2015). One person asks the question and the other commit to taking notes, each interview took place in a closed setting where the interviewee could speak freely, and they all were recorded. The questions were not sent to the interviewees beforehand but asked exclusively at the interview. If interesting points were brought up by the interviewee follow up questions were asked on the spot. The questions were mostly the same for all interviewee's, except a few added one's based on information gathered by earlier interviews, and a few removed based on their irrelevance. Some interviewee's have been asked follow-up questions either due to that their previous answer needed clarification or that the answer after analysis presented more questions.

### 3.2.2 1<sup>st</sup> round of interviews

The researchers didn't know much about the company beforehand so the intention with the first round of interviews was to learn more about the case company. I.e. to gain a good overview of how the organization works and operates, together with the present situation regarding how the firm manages knowledge. This was to explore how the research question in its earliest form could be answered. Furthermore, the authors wanted to generate a contact network for the research and these early interviews would help with that. All interviewees were selected with the help from the case company's HR manager, based on this individual's perception that these individuals were deemed to be the most important to talk with for the continued research. The number of interviews was three, with abbreviations A, B and C, see table 1.

### 3.2.3 2<sup>nd</sup> round of interviews.

After the research question finally got settled, it was time for the next step of this study, the gathering of data. As previously mentioned, these interviews were a bit more structured to provide enough information for the analysis and trying to answer the research question, the number of interviews ended up being 13. The interviewers had the same sort of mindset as with the 1<sup>st</sup> round, i.e. length, roles and recordings, etc. The interview template that was used can be seen in Appendix 1.

In the following table 1, each interviewee will be presented with responsibility/role in company and their abbreviation.

<b>Responsibility</b>	<b>Abbreviation</b>
Division 3 Director, top management Scandinavia	Interviewee A
Director of innovation and Technology	Interviewee B
HR manager, top management Scandinavia	Interviewee C
Director of Project Management Office	Interviewee D
Head of team managers, Division 1	Interviewee E
Team Manager, Division 3	Interviewee F
Team Manager, Division 2	Interviewee G
Division 2 Director, top management Scandinavia	Interviewee H
Program Office assistant	Interviewee I
Consultant/Project leader	Interviewee J
Senior Consultant	Interviewee K
HR assistant	Interviewee L
Team Manager, Division 1	Interviewee M
Consultant/Project leader	Interviewee N
Project leader	Interviewee O
Regional Manager	Interviewee P

*Table 1. Interviewed persons their role and abbreviation*

### 3.2.4 Sampling strategy

The goal was to get a broad view of the transition and the hindrances in terms of knowledge management. The sampling started with trying to interview individuals high up in the organization through recommendations by the HR manager, later to move down. The reason for this was to get as much information possible from management early in the study when changes usually are necessary. The strategy used was snowball sampling, it was done on an ad-hoc basis, each and every interview ended with the same final question, “Do you have any idea of whom we should discuss this further with?”, so it was based on the interviewee’s connection with other employees (Easterby-Smith et al., 2015). Through these recommendations, contact was made, some were left out and some were more sought after than others due to the belief that they potentially had more to contribute with to this study, especially if it was believed that they might know a lot of the subject, have contrasting views or role.

### 3.3 Data analysis

In this section the researchers will present the codes and coding schemes for the analysis of the empirical findings, and how the empirical findings section should be interpreted. The resulting ideas and dimensions will be the foundation and basis of the discussion. As described earlier the researchers have used the Gioia method (Gioia et al, 2012) which constitutes a thorough methodology for analyzing empirical findings. Raw data in the form of quotes is the basis for our assumptions and make way for the 1<sup>st</sup> order of concepts. From these concepts 2<sup>nd</sup> order themes can be derived and finally patterns, and clear ideas can be identified in the aggregated dimensions (see figure 2 & 3). Each section and theme of the findings will be analyzed in order to enable discussion and the answering of the paper's research question. Examples of the raw data in form of quotes that led the researchers to the concepts, themes and aggregated dimensions can be seen in figure 2 and 3. The Gioia method was deemed appropriate for identifying patterns and relationships since the emerging data consists of answers from a diverse group of individuals. The method also allowed for inductive reasoning making it possible to generate new theory from the data and to answer the research question.

The researchers found that the empirical findings boiled down to two aggregated dimensions; immediate challenges the firm faces right now and challenges of a more long-term nature which they will face while continuing its transition, both relating to various KM issues. This will be more thoroughly gone through in the discussion section. To separate the two types of KM challenges previously mentioned one should think of immediate challenges as obstacles that remain regardless of the business model transition being successful, i.e. moving from consultancy staffing to complex solution and projects. Meanwhile long-term challenges are difficulties based on prosperity of the transition and that the firm eventually will increase in size.

Each interview was treated the same way; Record the interview and as soon as possible after it, write a transcription. The researchers then grouped the data into categories under each question for both rounds of interviews, and especially for round two where the interviews were more structured. Every interviewee was given a color, this way each answer for the same question could be separated. The researchers started by identifying quotes for further analysis, trying to find common themes from seeking similarities and differences amongst the decoded data, trying to reduce the number of categories to a manageable amount (Gioia, Corley & Hamilton, 2012). The 2<sup>nd</sup> order-analysis could begin by relating the themes to literature, this way the themes that was observed could be explained by the theory. This process was repeated until the result became a complete data structure consisting of distilled aggregate dimensions.

In the empirical findings the researchers present the views and ideas of the interviewees. When reading the empirical findings, it must be acknowledged that the section is written after this previously described analyzing process took place, and thus the analysis is partly incorporated in the empirical findings section. The discussion is then based on the findings and analysis of the findings intertwined.

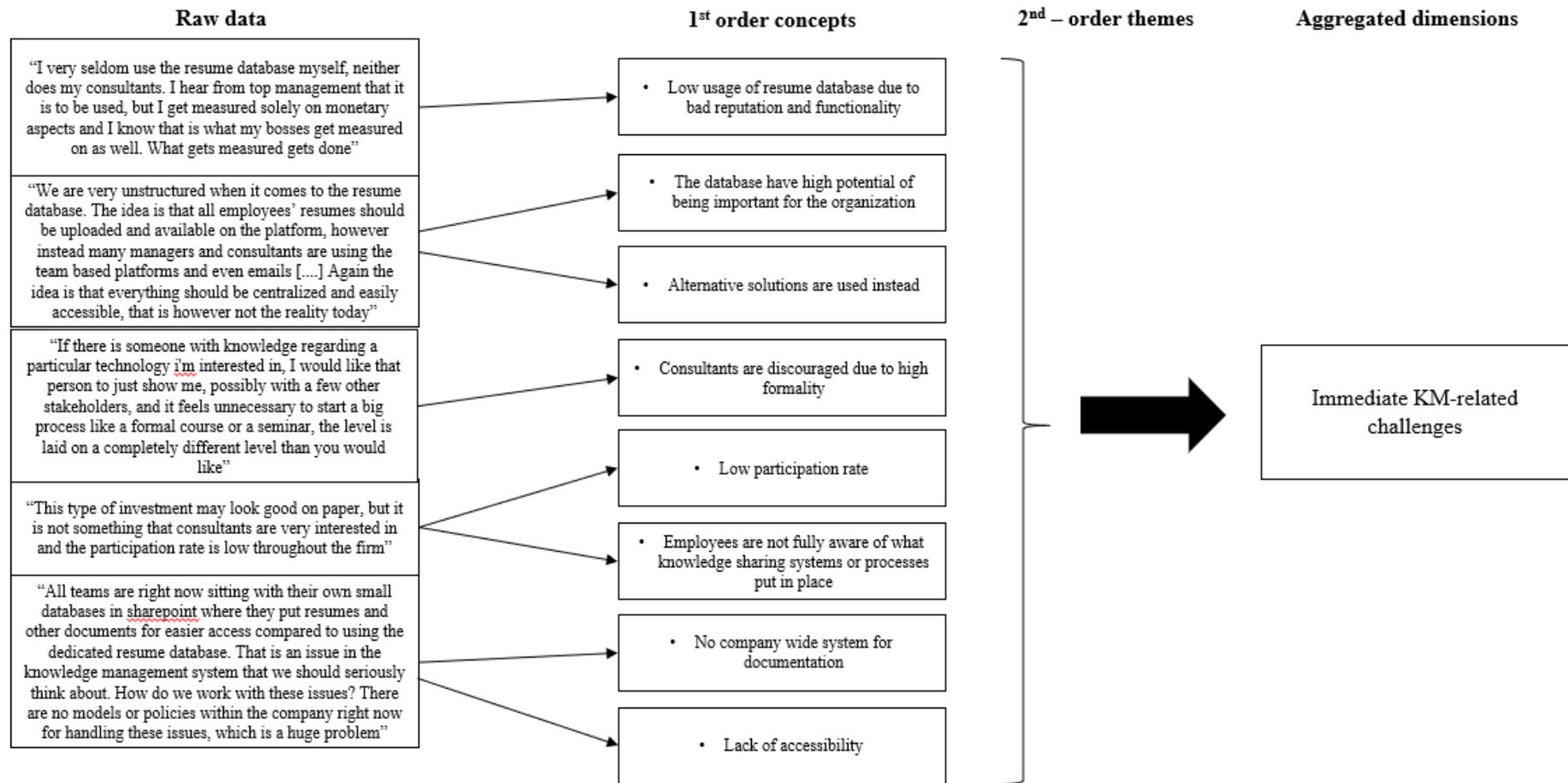


Figure 1, coding schemes using Gioia methodology.

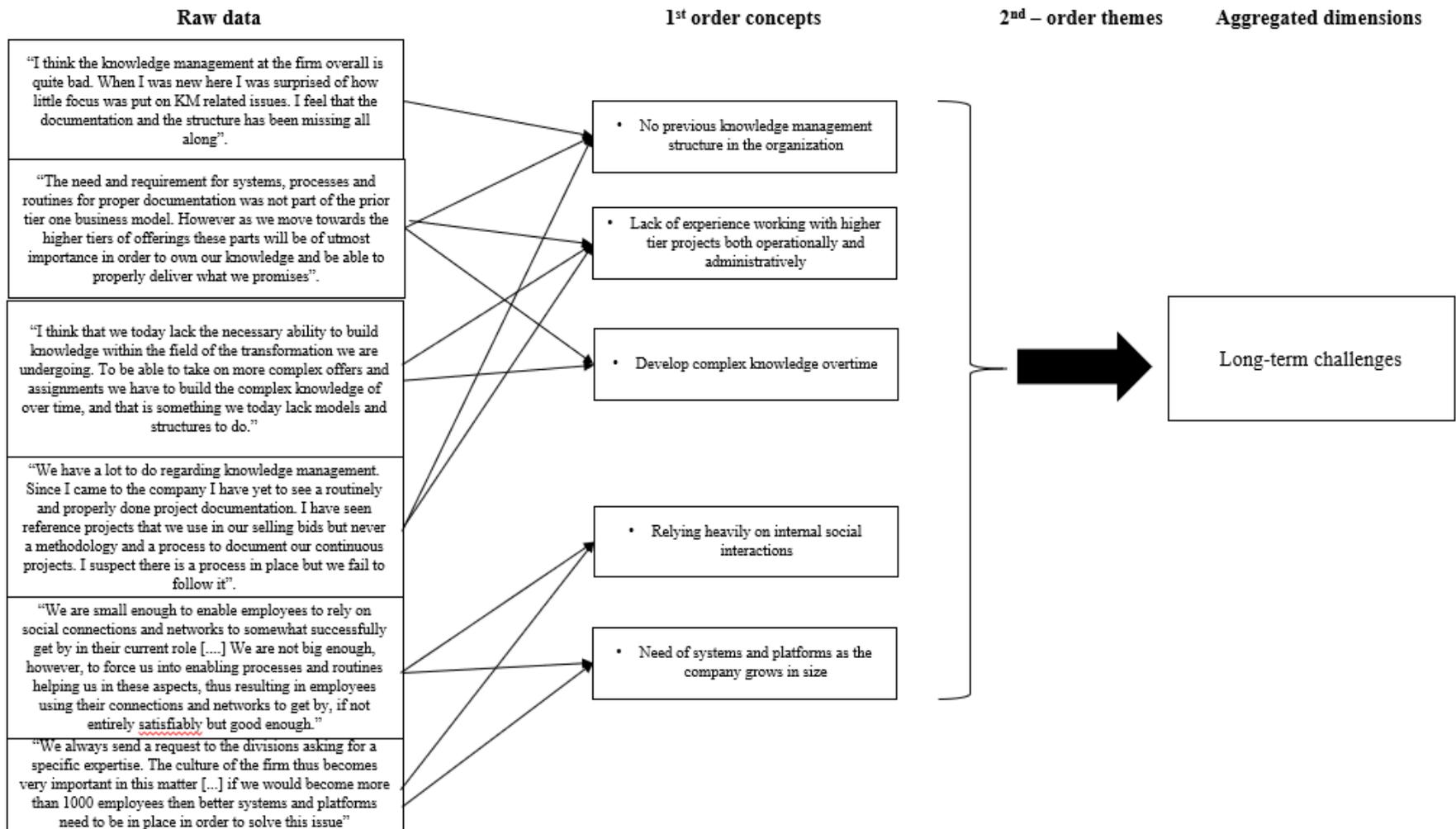


Figure 2, Coding schemes using Gioia methodology.

### 3.4 Methodology discussion

*This section discusses the credibility, transferability, dependability and confirmability from a quality standpoint and to ensure the research reliability.*

Several actions were taken in order to raise the credibility of the study. The researchers tried to spend three to four days a week at the case company for eight consecutive weeks to take in the organizational context which is supported by Easterby-smith et al. (2015). Secondary data, such as theory and literature were handled with consideration i.e. trying to find multiple sources saying the same thing to cover conformability. Lastly meetings were held with supervision from both Chalmers and the company to discuss the ongoing research.

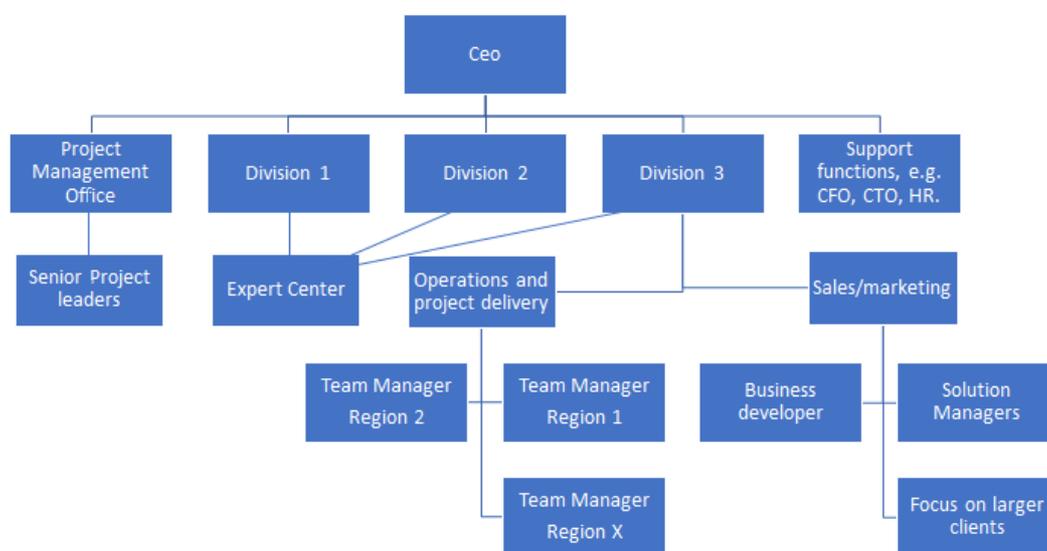
This report consists of a case study therefore the transferability becomes rather limited and qualitative studies are in nature often tough to judge how transferable they are beyond the surroundings of the study (Easterby-Smith et al., 2015). The researchers deemed it necessary to provide a description that was contextually rich in order to solve this issue, so the reader could be able to determine whether the result is transferable if the frame of study is changed.

Details for how the study was conducted is presented, this is to make sure that the process is repeatable. If the method was to be followed, repeating the research should result and confirm its validity. To remain objective, all interview questions were designed to be open-ended so any preconceptions from the researchers could be avoided and outlines for how conclusions was drawn can be seen by studying the Gioia method.

## 4. Company description

The authors intend with this short description of the company to give the reader an increased understanding of the context where and how the study took place. The organization will not be mentioned by name due to confidentiality and possibly sensitive information gathered throughout the research process. This was not a demand from the case company but since a more open study may be presented if the name and identity is kept secret the researchers decided to take this approach. The information in this chapter was mostly gathered throughout the 1<sup>st</sup> round of interviews.

The organization subjected to the research investigation is a global actor in the consultancy industry and providing engineering and R&D solutions among an array of other services to their clients. It has been in business for over thirty years and currently have over 40 000 employees located in thirty countries. The firm is currently offering services in nine different industries e.g. automotive industry, energy industry and life sciences. The Swedish offices is part of a Scandinavian branch of the company with roughly 600 employees.



*Figure 3, Organization chart of case company (interviewee A, 2018).*

The company comprises different operative divisions and support functions, with the Swedish branch having three, which in turn consists of a sales department and an operation and delivery department as shown in figure 2. The divisions are active and grouped based on their expertise and business areas, with the different teams under the operations department in each division being the ones to carry out the consultancy work. Expert centers specified within certain areas are active when specific knowledge and expertise is needed. They then help the teams involved in a project or service to carry out the task, or simply take it over completely. The three division silos are the sole reason for revenue and the money flow is still always going directly to the

division responsible for a sale, regardless if any expertise center has been involved or another division carried out the task. The teams are specialized within different areas, some homogeneous and others very broad in terms of their expertise areas. They work mostly separated from each other as their own entity or their own little company and therefore a strong group mentality can be present (interview C, 2018).

### 4.1 The changing firm

The company divide their consultancy work in different tiers based on the nature of the task and a classification of tiers is always done before a project begins (Interview A, 2018). As can be seen in figure 5, there are currently 4 different types of tiers and with different characteristics.

Project tier	1	2	3	4
<ul style="list-style-type: none"> <li>• Characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• Single staffing</li> <li>• Paid per hour</li> <li>• Working at the customer location</li> </ul>	<ul style="list-style-type: none"> <li>• Team staffing</li> <li>• Paid per hour</li> <li>• Working mostly at the customer location</li> </ul>	<ul style="list-style-type: none"> <li>• Project</li> <li>• Fixed price</li> <li>• Location varies</li> <li>• Team-members may come from different divisions</li> </ul>	<ul style="list-style-type: none"> <li>• Collaboration</li> <li>• Joint effort between consultancy firms and customers</li> <li>• Several sectors/divisions are represented</li> </ul>

Figure 4, Project tier description.

Tier 1 is simply what before was mentioned as engineering staffing where an engineer is working at the company or directly for the company to help the customer’s engineering force or simply do tasks that the company do not want to do themselves in-house. This is by far the biggest segment among the four tiers for the company. If a client wants more than an assignment fulfilled it becomes a project i.e. Tier 2 and higher, there will exist a recipient and a clear process of documentation and return of experience. Tier 2 is like tier 1 in many ways but instead of a single consultant the sale consists of a team or a group. Tier 3 on the other hand is more of a classical project, fixed price, beginning and an end with gates in between (Interview D & B, 2018). Tier 4 is the far opposite from tier 1: large collaborations and projects between different sectors, divisions and teams within the company but also beyond with customers and even other consultancy firms involved. These large projects and collaborations in some sectors are part of what the company sees as the future in their consulting strategy (interview C, 2018). Higher tiers or projects such as tier 3 and 4 shifts the risk towards the case company instead of the client which allows for a risk premium.

Historically the company has been more of an engineering staffing agency where they simply sold consultants to customers for a fixed price or “per hour” based on expertise needed (interview C, 2018). The firm have an overall goal of growing and declared two years ago to make a strategic change and way of working to focus more on whole solutions for companies and large projects, i.e. value-based projects where they will try to sell value instead of “hours”. Since they believe that is what the market and their customers are going to request and will

have other perks which is described further in Empirical findings. The organization has also had a high turnover on managers the past two years and hired employees for positions that was nonexistent before, such as an HR manager. In line with this decision they started a new department/division which can be seen as a matrix organization i.e. that it is independent, and this organization can pick the necessary individuals for a project from the original three divisions and have influence over management. The matrix organization overall goal and responsibility is to make sure that the company delivers all of their projects and solutions and that the firm keep its promises regarding following timetables, quality and margins. The bid-process for value-based projects will also be managed by the matrix organization. The department will consist of administration and a network of senior project leaders (Interview D, 2018). So far consultants and team managers have had limited involvement and experience working in these kinds of setups, there is still a lot to be done. The matrix organization will here onward be referred to as project management office (PMO) (Interview D, I & F).

## 4.2 Academic inspired programme

On their intranet they have an internal learning platform with 300 different e-learning and training possibilities. It consists of both soft-skills and hard-skills, the softer ones refer to presentation techniques, conflict management, generic useful courses, the hard-skills courses can be programming and web design. The latter described examples are primarily for consultants, but managers also have the possibility and are in some cases forced to take a few courses e.g. leadership, salary negotiation and appraisal discussion. Besides having the possibility of e-learning, management encourages consultants to conduct and attend two types of seminars. The first type can be seen as a brown-bag seminar and is characterized by being light-hearted. The second type of seminar is a new initiative and will in this report be referred to as the academic inspired programme. Individuals who are considered experts in specific fields or subjects receive 1500 SEK extra and given 10 hours per month to further dive into this particular field and create a course along with a network of followers at the firm later to conduct at least two heavier seminars. These individuals in the programme are called “professors”.

## 4.3 KMS and KM activities

The firm uses several IT-system in their daily business related to knowledge management, the first one to be introduced is a CV-database and is a core system. The database was a global initiative and the Scandinavian offices was forced to implement it. Consultants are intended to update their resumés constantly, preferably after each finished assignment or project and should be used to print a finished CV and give it to clients when they are hiring consultants. If sales or a team manager want to look for a capability, they can search for it in the system and receive a list of people with this capability, minor documentation of previous projects can also be found. The search function cannot be accessed by everyone, i.e. consultants can’t search and use the system.

Microsoft SharePoint is used quite heavily by the company which is a team collaboration software tool for e.g. sharing, solution building and document storage. Each team unit has one

individually and team managers across divisions use it for communication. Another newly implemented system is the talent management system, which is mainly used for annual appraisals of consultants, these are conducted two times per year.

Other initiatives present are conferences for team managers, where they have an agenda but the main intention with these conferences is for the managers to get to know each other and their respective fields of business. The firm also has a larger conference or summit where all employees are obligatory to be present, during the summit some consultants get to introduce and talk about their projects. Teams also have their own informal gatherings which happens on an irregular basis and differs a lot from team to team. All of these both formal and informal gatherings are important since the firm relies heavily on social networking for their knowledge management purposes due to the fact that there currently is no systematic way of finding information, data and documents of previous projects.

# 5. Empirical Findings

*In the following chapter the empirical findings will be presented on which the report is based upon. The empirical findings are first, and foremost information gathered from the interviews conducted. Related topics will be presented in regard to answering the research question and the interviewee’s views on the topics will clearly be stated.*

## 5.1 The changing firm

An overwhelming majority of the interviewees express their understanding and support of why and how the firm is changing. An array of positive aspects of moving towards a more project-based business model have been mentioned but there are also some concerned voices, specifically from an office in Sweden who solely have taken in deals of tier two or higher.

### 5.1.1 Moving from tier one to a project-based business model

Project tier	1	2	3	4
<ul style="list-style-type: none"> <li>• Characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• Single staffing</li> <li>• Paid per hour</li> <li>• Working at the customer location</li> </ul>	<ul style="list-style-type: none"> <li>• Team staffing</li> <li>• Paid per hour</li> <li>• Working mostly at the customer location</li> </ul>	<ul style="list-style-type: none"> <li>• Project</li> <li>• Fixed price</li> <li>• Location varies</li> <li>• Team-members may come from different divisions</li> </ul>	<ul style="list-style-type: none"> <li>• Collaboration</li> <li>• Joint effort between consultancy firms and customers</li> <li>• Several sectors/divisions are represented</li> </ul>

*Figure 4, Project tier description.*

One of the biggest advantages the firm gets when selling projects and solutions instead of individual consultants, according to many interviewees, especially at the management or executive level, is higher profit margins. When selling tier three and four offerings the consultancy firm obliges itself to delivering what is promised, and if a project were to fail or be delayed the deal can potentially be canceled. The idea is that when moving the risk like this from the customer to the consultancy firm, higher profit margins may be achieved by the premium added for the shift in risk (Interview A; B; D; G; H; F, 2018). Another important advantage the firm gets is moving individual consultants from working physically at their customers to working with other firm colleagues in-house. This strengthen social bonds, contact networks, has advantages relating to managing knowledge since employees within tier three and four projects will be working with in-house IT-systems and exclusively with firm colleagues, and will make employees more satisfied with working at the firm, leading to lowering the employee turnover and thus keeping the knowledge in-house (Interview A; B; G; P, 2018). To add to this, the company will also be able to hire junior consultants to a higher degree than the market has allowed for with the tier one business model. *“This will be a great*

*way for us to recruit junior consultants, which we today are struggling to employ since most tier one deals requires the consultant to be able to deliver from day one. Junior consultants need education and time to learn the job, something we will be able to give them in bigger projects with senior consultants' present. This is a huge win for both us and our customers since it becomes cheaper for them as well if we can mix the project groups with seniors and juniors". - Interviewee D which is supported by interviewee F: "It is very difficult to hire senior consultants, there are however countless of young graduates searching for jobs. If we had more tier two and higher projects, we would be able to educate them and give them an excellence start in their career and after a few years they would be well into the practice and we can phase out senior members. This is a whole different dynamic than to the tier one model. This is where we want to head as a firm".*

The point regarding better knowledge management with the higher tiers of offerings is the most common advantage except for better profit margins brought up by the interviewees. *"The need and requirement for systems, processes and routines for proper documentation was not part of the prior tier one business model. However, as we move towards the higher tiers of offerings these parts will be of utmost importance in order to own our knowledge and be able to properly deliver what we promises". - Interviewee D.* The idea is that instead of being bound by the customer's demand for individual expertise and social match which is the result of tier one deals, the firm will be in charge for putting together teams. This brings forth new ways of being able to integrate new employees, and even freshly graduated recruits, into gaining crucial experiences and expertise. Knowledge and information will naturally flow horizontally and vertically between teams collaborating (Interview A; B; D; G; P, 2018). A typical model for assigning a new project team is to have one to two senior consultants with experiences of both leading projects and specific expertise relating to the work. Then the PMO can add complementary personnel to the group as it deems fit, and whenever someone is needed elsewhere, they can simply be moved there and be replaced with someone else since the customer is not involved in the process (Interview D, 2018). To be able to hire freshly graduated consultants is notably something that the company has been unable to do historically since customers often ask for more senior expertise. With this model the company can both hire newly graduates and be free to shape them in the areas of expertise that the firm demands, instead of having to rely on their customers (Interview D, 2018). As already mentioned, one of the most impactful ways this model of project groups will allow for better knowledge management according to many interviewees is the fact that the employees will be working in-house with the firm's own IT-systems and will much more easily be able to document projects, successes and learnings, and also access in-house information more easily (Interview A; B; D; G; P, 2018).

*"I come from another business area. When I came here and visited my consultants for the first time, I realized that some of them who had been at a customer for three years had not met anyone from the firm for years". - Interviewee F*

Another positive aspect of moving the business towards the higher tiers is relating to what interviewee H calls the *human dimension*. *"The human dimension of this is that people want to learn more things, cool things, complex things. By moving away from the simple business of*

*consultant per hour towards the more complex project business, we also allow our consultants the possibility of growing in their roles, to take on more complex assignments and new areas of responsibility*". - Interviewee H, 2018. The interviewee means that this aspect is sometimes forgotten in the transformation but that it is an important one. While the company wants to raise their profit margins by moving towards this business model, they also want to raise their level of retainment. This cannot be done without enabling their consultants to grow and to take on more complex assignments if they wish to (Interviewee H, 2018).

### 5.1.2 Practical complications with the higher tiers of offerings

*"I realize that taking on the bigger more complex projects is a matter of profits and better business, but you have to be aware of the many risks involved in taking on valuable projects. You become vulnerable if you fail to foresee all the risks when you put a price tag on a commitment. You also tend to offer fixed price. If then something unexpected happens you can be put in a difficult, unprofitable and sometimes impossible task of completing a project. If you try to counter this by adjusting the price your customers will choose a competitor"*. - Interviewee N

An interesting note is that the interviewees referenced in the previous section all have little to none practical experience working with the higher tiers of offerings at the firm, thus making their opinions of the advantages with the higher tiers of offerings speculative. However, interviewee P has for the past 7 years overseen setting up a new office which exclusively have been focusing on tier two and higher business, thus having unique insight. Interviewee P's view on the advantages relating to knowledge management correlates with what many others have mentioned. *"The possibilities of properly managing knowledge increases with each tier of offering, since the consultants are not in your customer's hands but your own"* (Interview P; N 2018). The idea of being freely able to put employees into projects which they choose and want to be educated in is, according to interviewee P, true in practice and this ability helped the office to have the lowest employee turnover in the firm, close to 0% the last few years. This is however where the similarities between interviewee P and what other interviewees have expressed end. It is specifically the increased profit margins that interviewee P has high doubts about, stating that while a successful tier three or four project is much more profitable than the individual consultants would be hired per hour, only about one in four projects is financially successful. Time delays, lack in expertise and general complications on the way to a completed project are all things that are likely to happen in most projects. These are not things covered in the premium customers pay, making most projects unprofitable. Interviewee P however adds that the more experienced the firm overall becomes in working with the project-based business model the better it will become in making the projects profitable and to make sure that it does not sell projects it will be unable to successfully profitably deliver. (Interview P; N, 2018)

Interviewee H means that the firm today lacks models for building the essential experiences, expertise and knowledge necessary for the transformation the company is undergoing. *"I think that we today lack the necessary ability to build knowledge within the field of the transformation we are undergoing. To be able to take on more complex offers and assignments we have to build the complex knowledge of over time, and that is something we today lack models and*

*structures to do.*” - Interviewee H. H continues: *“We have a lot to do regarding knowledge management. Since I came to the company I have yet to see a routinely and properly done project documentation. I have seen reference projects that we use in our selling bids but never a methodology and a process to document our continuous projects. I suspect there is a process in place, but we fail to follow it”*. Interviewee K has similar ideas regarding change process the company is undergoing and the structures. *“For years there was really no structure at all around documentation and similar processes. This is now a big challenge for us, the firm really must communicate the change in that everything is going to be structured, regardless this will be tough. I still feel like me and my peers do not feel the change yet, and that its only noticeable at the higher management levels”*. - Interviewee K.

To have the correct competence to what the customer demands will also be something of utmost importance when moving forward with the change, according to the head of PMO, interviewee D: *“Right now we need to focus on identifying the key competences and in what areas the key competences is needed. What do we believe our customers will be asking for? In what areas will they offer us projects? It is something extremely important for us to determine and make accurate predictions”*.

### 5.1.3 The size of the firm

The executive branch of the company has explicitly stated their goals and ambitions to increase the size of the firm with a fixed growth rate per year (Interview C, 2018). This will according to some interviewees put the firm in a challenging position with today’s lack of functioning knowledge management tools and culture of relying on social interactions instead of trusting and using the systems and platforms in place (Interviewee G, 2018). Interviewee G imply that the current size of the firm is somewhat unfortunate:

*“We are small enough to enable employees to rely on social connections and networks to somewhat successfully get by in their current role, but large enough to make these connections and networks unviable in all directions and levels of the firm. We are not big enough, however, to force us into enabling processes and routines helping us in these aspects, thus resulting in employees using their connections and networks to get by, if not entirely satisfiable but good enough.”* - Interviewee G (2018).

The head of the PMO has this to say regarding the current work routines and an increasing company:

*“We always send a request to the divisions asking for a specific expertise. The culture of the firm thus becomes very important in this matter. We are using the internal network and that works with the current size of the company. However, if we would become more than 1000 employees then better systems and platforms need to be in place in order to solve this issue”*. - Interviewee D (2018).

## 5.2 Project Management Office

The matrix organization handling all bids and sales connected to projects, where more than one consultant is to participate, will as mentioned in this paper be called Project Management Office (PMO). It is a brand-new department within the company, established in January of 2018, and is separated from the Scandinavian branch hierarchy, with the head of PMO answering to the centralized department directly. This is, according to interviewee D, 2018, to keep them unbiased and free to roam the realms of the company unhindered in order to successfully be able to bid, sell and put project teams together from all divisions and team units of the company, and not be influenced by politics within the firm and its different divisions. The department also works standalone regarding document handling and saving project information. The information stored, however, is mainly for marketing purposes and to enable able putting together competent, complementing groups of individuals and is not used as a tool of knowledge within projects (Interview D, 2018). However, a solution where project related documents are better saved and documented connected to SharePoint is being worked upon right now, according to interviewee D.

### 5.2.1 Project Management Network

The PMO has recently started a network consisting of project leaders at the firm, in this report called Project Management Network (PMN). The network is a recently started initiative to better manage the in-house knowledge and experiences of project leading and will be led by two senior project leaders with years of experience. The network will have its own SharePoint and will have meetings a few times each month to network and share experiences of the current, future and past projects conducted. The idea is that the network will be in charge of starting up new large projects, of tier three and four, to make sure the projects get a healthy start, that the group is put together with correct expertise and team dynamic, and that the team members get the help and support they need. (Interview D; J, 2018)

*“The idea with the whole department and especially the project management network is to get senior project leaders involved in managing the process and using past lessons learned in the bidding process to acquire new project deals”. - Interviewee D*

## 5.3 Knowledge Management Initiatives and Systems at the Firm

The firm has recently implemented platforms and systems related to knowledge management which has been presented in the description of the company. In the following sections, findings for mentioned platforms and systems are presented.

*“I think the knowledge management at the firm overall is quite bad. When I was new here, I was surprised of how little focus was put on KM related issues. I feel that the documentation and the structure has been missing all along”. - Interviewee I*

### 5.3.1 Academic-inspired programme

The intention with the system is well described by interviewee D: *“The academy is in its infant stage, the goal with the system is to increase retainment by means of education for employees and make them feel they are working at a place where they can develop themselves. The question is about further development instead of capitalizing on what is available today. If more attention is paid to value-based sales (projects), more important is the knowledge available in the company “.* The platform where consultants have the possibility of using the e-learning portal and taking on the role of *professors* and hold seminars in their own fields and areas of knowledge is the first and foremost thing that comes to mind when the interviewees have been asked about knowledge management related initiatives at the firm. A majority of the respondents are positively tuned to the newly implemented project however some concerns have been raised related to its formal and quite time-consuming nature. One consultant, Interviewee K expressed it as *“If there is someone with knowledge regarding a particular technology I’m interested in, I would like that person to just show me, possibly with a few other stakeholders, and it feels unnecessary to start a big process like a formal course or a seminar, the level is laid on a completely different level than you would like ”.* This view is supported by a regional manager, interviewee P: *“This type of investment may look good on paper, but it is not something that consultants are very interested in and the participation rate is low throughout the firm”.* The positive voices raised center around the idea and that it sounds appealing, however no one of the interviewees have attended a seminar or taken on the role of a *professor*. The fact that consultants are supposed to attend the seminars on unpaid hours, during lunchtime for example, has been stated as a reason for the mild interest. The economic incentive given to *professors*, as the teachers are called in the programme, have been declared by many interviewees to not be enough in relation to the work a professor is supposed to put in, in order to adequately fulfill their commitment. Some interviewees go as far as to say that the academy program is a waste of resources (Interview P; N, 2018).

An alternative less formal idea has been proposed in order to lower the threshold for employees to participate in these knowledge-sharing activities. As mentioned, many think that the idea is fundamentally good but that the threshold is quite high to get involved and the seminars and everything surrounding it is quite formal. *“My idea is to instead bring people in the same business areas together in an after-work setting, order some fast food and enjoy some beverages while talking and discussing their common work and areas of expertise”.* - Interviewee F. The main idea of this is to bring people together from all over the company in different divisions so that people with in-depth knowledge in certain fields who normally would not get together get the chance to exchange ideas and expertise in a friendly non-formal setting. (Interview F, 2018)

The HR manager who is the person behind the initiative has the following to say regarding the programme: *“The programme does not solely revolve around the more in-depth seminars and courses held by the professors. We assume that you as a coworker are willing to share your expertise and experiences with your colleagues without any incentives. I would however like to have an incentive for it for everyone. That shouldn’t be the main reason for doing it though. We want our employees to be hungry about sharing and trading knowledge”.* - interviewee C.

An interesting point relating to the programme is that there seems to be confusion among the interviewees about what the programme is and what parts belong to the programme. Many have heard about for example the seminars but are not fully aware about their context and especially what is expected of a teacher, or professor, holding said seminars (Interview J; K; N 2018).

### 5.3.2 IT-systems and platforms relating to knowledge management

There seem to be an overwhelming consensus among all interviewees that the today implemented IT-systems have an array of flaws and errors which has rendered them, according to some, completely useless (Interview G; O, 2018). The concerns are many and are specific to each different system. The following sections will provide insight in how employees experience the knowledge management facilitating platforms and systems that are in place

#### 5.3.2.1 Resume database platform

*“We are trying to classify all our employees’ capabilities and competences and make them searchable. This enables the identification of what and where the competence is located in the company to in a later stage be able to assimilate it”*. - Interviewee G.

The platform used to gather all the employee’s resumes and information about project involvements and past specific experiences is especially criticized and heavily attacked for its shortcomings. The platform is used to store an up to date record of all the consultants’ resumes and expertise in order to correctly match companies’ demands or to be able to put competent project groups together. However, its user interface and functionality has been extremely inconsistent and not very user friendly since its implementation two years ago (Interview A; C; D; E; G; H; I; J; K; O, 2018).

*“The resume system is necessary but very un-user friendly, and we at [the office’s location] do not think it works properly. We have had resume systems before that we made ourselves and that worked very well, easily manageable and you could as a manager very easily enter and search the database. Then it was replaced by headquarters with the new buggy un-user-friendly system. I would go as far to say that it is today unusable, and I use it perhaps one percent of all the times I would want to use it”*. - Interviewee P

To get some background and understanding of its implementation, the centralized branch of the company pushed through that all branches of the firm internationally were to implement the same systems and platforms, the resume database being one of them (Interview C, 2018). At the time of its implementation, however, the system was full of bugs and the interface was very hard to understand and navigate through (Interview C; J; G, 2018). This is an issue that still haunts the system since the first impression was so bad, which even have resulted in some team managers not incentivizing their consultants to update their resumes on a regular basis, despite the executive management’s inclinations to do so. *“I very seldom use the resume database myself, neither does my consultants. I hear from top management that it is to be used, but I get measured solely on monetary aspects and I know that is what my bosses get measured on as well. What gets measured gets done”* - Interviewee G. A point also frequently brought up by consultants is that the apparent benefit for individual consultants is non-existing since the

personal contacts and networks is seemingly more important to be correctly matched and employed (Interview J; K; M, 2018).

*“Unless you have an updated resume, how are we supposed to be able to match you correctly? The resume should be updated even before your first day at the firm. There are no excuses because the system is actually good enough, but I think we still suffer from the early buggy releases. The reputation of the system is still bad”*. - Interviewee C

Another issue with the platform that is repeatedly brought up as a major flaw is the fact that individual consultant information is only stored as long as the consultant is employed by the firm. The day someone leaves all related information is deleted from the database. Since the database is also used to store information about completed projects and which projects has been completed within the company, this information is partly lost when participating members of a project group terminate their contracts and leave the company (Interview D, 2018).

A minor annoyance which also frequently is brought up is the appearance the resume takes when a consultant or a manager tries to extract it from the database, when preparing to present it to for example a customer. The appearance of the resume always needs additional work and effort to make presentable, which has led many consultants and managers to also keep an updated resume on other platforms, for example on SharePoint, which is up to date and readily presentable to avoid the additional work needed when extracting resumes from the database. This leads to consultants rather updating the offline resume, which naturally are not searchable, thus vastly hamstringing the legitimacy and usefulness of the database. (Interview G; J; K; M, 2018) Explained by interviewee M - *“We are very unstructured when it comes to the resume database. The idea is that all employees’ resumes should be uploaded and available on the platform, however instead many managers and consultants are using the team-based platforms and even emails to look for and trade resumes when searching for a job match, for example. The usual objections are that the resume database is very un-user friendly and that it is hard to find what you are looking for. Again, the idea is that everything should be centralized and easily accessible, that is however not the reality today”*.

Another perspective on the shortcomings of the system is given by an interviewee who recently returned to the firm from parental leave. With many of his former colleagues gone from the company after the change in executive leadership, the interviewee found himself in an unusual situation where not many people knew him or his skills and thus had to rely on the resume database for people to find him and match him with assignments. *“New management, new people. No one knew who I was. Some of the assignments I was offered was completely mismatched and in areas I had not worked in for years. Now they only look at my resume and try to match me from there, with little knowledge in my updated areas of expertise. It now lies on me to market myself to be able to be hired. I am one of the people who worked the longest at this firm and I now feel like a new recruit”* says interviewee K.

### 5.3.2.2 Team unit specific platforms

The document management platform that is now universally used at the firm is Microsoft’s SharePoint. It was implemented simultaneously as the resume database and employees are still

in the process of getting to know the system and its usability (Interview J; N, 2018). Most agrees that the system works adequately well and the threshold to start using it, at least for its most basic intentions, is low. Notably, however, it is the platform that gets referred to when consultants and team managers get asked about how information regarding projects get documented. This becomes a problem, according to some, since each individual team unit has its own SharePoint platform, which means that all the information and documents that get stored only can be accessed by people within the same team, and it does not, at least in its current state, allow for company-wide search and access (Interview J; H; O, 2018). A few managers point out the importance of pushing for better document management, relating to knowledge management. They mean that today's lack of documentation vastly hinders the company's development and transition towards selling more project groups and whole solutions, especially since the company has goals of growing the coming years. The project organization, mentioned in the company description, will especially have problems as the company grows with finding relevant expertise within the company if the documentation is of lackluster quality, some fear (Interview A; H, 2018). Interviewee H has the following to say regarding SharePoint and how resumes get stored within the teams: *"All teams are right now sitting with their own small databases in SharePoint where they put resumes and other documents for easier access compared to using the dedicated resume database. That is an issue in the knowledge management system that we should seriously think about. How do we work with these issues? There are no models or policies within the company right now for handling these issues, which is a huge problem"*. However, the head of the project management office, interviewee D, mentions they are working on a solution: *"We are right now working on a SharePoint solution. The idea is that all project related documents will be saved and documented in specific folders for each customer, making it easily searchable and structured. This also includes all the bidding documents, which right now are being stored in a separate bidding system"*.

## 6. Discussion

*In the following sections the researchers will thoroughly discuss the empirical findings and the literature review in order to answer the research question of the paper. These sections will solely be based on the opinions and views of the researchers, as they will interpret and make assumptions based on the interviews presented in the empirical findings. To summarize a conclusion will be included to wrap up the report.*

### 6.1 Immediate KM-related challenges

The market of selling single consultants is getting tougher and the margins lower which seem to be the main reason for why the firm starts to look elsewhere. The strategic choice of changing the business model clearly has many advantages for the organization according to most of the interviewees. Higher margins, consultants are able to work in-house increasing their appreciation of the firm and the feeling of belonging, easier recruitment and being able to offer exciting opportunities. It is important to mention yet again, however, that according to the majority of the interviewees there currently is little to none practical experience of working with higher tier projects. The firm has a history of little to no KM processes or strategies and all its initiatives are in its early phases. It is very unclear if the top management even have a strategy planned out, most interviewees seem to think not. The theory emphasizes the importance of KM and corresponding systems enabling it, and while this can predominantly be seen as a long-term challenge, it is the author's strong belief the firm faces grave challenges even in the short-term if a clear KM-strategy is not anchored and put in place in the organization (North et al, 2018; Wiig, 1997; Halawi et al, 2005; Santhanam & Hartono, 2003).

When looking at the empirical findings it is evident that the firm is facing major challenges relating to their current KM-systems and processes and the way they are used and viewed by their employees. The reason for this is likely a product of their history of not needing proper Knowledge management systems and processes in place due to only selling consultants per hour. For KMS to work adequately they need to be aligned with the overall knowledge management strategy (Grover & Davenport, 2001), and the firm has neither had nor needed one until recently. This is the core of their KM-related issues, the fact that it is all very new and employees at the firm have had difficulties adjusting to the change, together with the fact that the newly implemented systems have been majorly flawed from the beginning.

To understand the flaws and how employees use and view them, they have to be looked upon both individually and how they interact with each other and with the firm's different departments. The resume system is the most apparent one that needs major revisions, since all interviewees have witnessed to its flaws. The fact that consultants are not dependent on it in its current state because of the way managers, customers and PMO recruit employees is a major part in why few see the necessity of keeping it updated, even though top management pressures them to use it. The issue of many consultants seeing no reason, and is given no incentives to, why they should even use the system is of course a major part in why the system is used and

updated so sparsely. To quote a manager who even discourages his consultants to use the system: *“What gets measured gets done”* - Interviewee G, who adds that the higher-up management measures the revenue he brings and not the rate of which his consultants use different KMS. To add to this, the system does not work adequate to the consultants’ need of being able to easily access and extract their resumes in a presentable format to send to managers and customers. This has, as mentioned, led to employees keeping additional, and often a more updated, versions of their resumes in other places such as SharePoint, which then of course only can be accessed by themselves and their closest manager. If the company is to achieve the goal of exclusively using this resume system as both a mean of having an updated database of their current in-house expertise and competence and a base for recruitment, both in-house recruitment and to customers, then the system has to be improved and efforts and resources be put into clearing its tainted name within the company. The researchers view this issue as an immediate one because of the fact that this is an issue regardless of if the company fully manages to make the transition it wants to the higher tiers of offerings or not. To have a faulty resume system that the employees in some cases even despise is an incredible disadvantage in all aspects you may look. To be able to find and match the correct competence to customer demands is becoming increasingly difficult with the firm growing in size and a healthy working resume system is essential in achieving this. The system is also essential in making sure the PMO can do its job correctly, which of course is of an extreme importance if the company is to succeed in gaining higher tier deals. Why the system is so important to the PMO is because of the fact that they operate as a matrix organization beside the rest of the organization and does not have in-depth knowledge of the different divisions and their expertise and thus need a platform to be able to find the correct expertise at the correct time. To have them rely on social bonds and contacts with different divisional managers is an issue, which only will get more severe as the company grows and the number of higher tier deals rises. According to the theory of Halawi (2005), the core of knowledge management is to deliver approaches of how to integrate the correct person with the correct knowledge in the right format and at the right time. For this to be possible a firm has to ensure that the correct KM-infrastructure is in place. The resume system is a core KM-infrastructure which today does not adequately fulfill the company’s need and is in all means an immediate challenge they face.

The subject of the academic inspired programme is somewhat more complex. Most interviewees have positive things to say about it and its intentions but almost no one even knows a person that is involved in either participating or leading a class. The fact that the intentions are good and well-founded are undisputed. Werr (2012) argues that well-functioning KM does not entirely rely on IT-systems and platforms but also in behaviour of individuals and their shared practices and interactions. The academic programme is trying to create exactly this, a community for employees interested in different areas to share knowledge and expertise with each other, as well as educate and make people interested in new fields of knowledge. However, a concrete problem of the programme is the lack of interest shown throughout the firm in participating. Many mentions the formality of the initiative to be the main factor of why so few are interested. There are also quite a few different ideas of what the programme actually is and how it works, what amount of time and energy is required to participate etc. Some ask for a less formal version of the programme where employees from all over the company interested in a

topic can meet up in a more informal setting and share ideas and experiences with each other, which might be a good idea to catch more employees and integrate them in the practice. In any case, the fact that the programme relies on the employees' own will to learn and share new things and the seminars and events all take place outside of the working hours all have been mentioned as factors in the low participation rates. When the programme is so formal, many employees expect, according to the interviews, to be able to at least participate during working hours and not sacrifice a lunch to do so. The E-learning available and the less formal versions of seminars all have been well-spoken of and perhaps the firm just needs to advertise them better to get people interested as today the knowledge about what they are is quite lackluster, some not even aware they exist. As seen in the theory, Nonaka (2000), Shilling (2012) and Werr (2012) all stresses on the importance to include not only IT-systems and platforms but also shared practices and communities to fulfill a firm's need of knowledge management systems. This academic-inspired programme is the initiative the firm has taken in this matter, but it is not right now fulfilling its purpose to the degree the firm needs. To make sure the company's IT-systems and platforms are complemented adequately with the kind of practices mentioned in the theory is an immediate challenge the firm faces and one that need to be addressed, since they right now are lacking the incentives needed for the employees to exploit these systems.

Another major issue revolves around the way the firm documents and manages information. The somewhat new SharePoint system implemented is working well but only to a certain extent. As many interviewees mention the system is limited to each specific team and there is no easy way to gain access to additional SharePoint-platforms. More notably, not even the PMO have access to the different divisions and their systems but instead have their own SharePoint where the intention is to save and document all necessary documents related to all projects and their customers. To not have an easily-accessible and searchable system where project leaders and participants can search for relevant information and documents is a clear issue and could potentially hinder the start-up and work process for many projects. This clearly is an issue and gravely hinders the KM process, which is the most important thing to focus on when building and setting up a firm's KMS, to make it support the KM processes (Grover & Davenport, 2001). The fact that top management does not seem to see this as an issue is further alarming since it could mean no actions are being taken to unite the firm's documentation systems. The researchers do note that it is the PMO's intention to, as mentioned, have their own SharePoint platform where everything relating to projects will be stored and documented and accessible by the PMO and the consultants participating in projects, however the reality is that many projects are being carried out within teams and many documents and information is being stored on different platforms. The importance of retaining and making the explicit knowledge within the company easily-accessible cannot, in the opinion of the researchers, be understated. If the company is serious about wanting to unite the entire firm under a flag of proper knowledge management, then this is a problem since it divides different divisions and teams from communicating, sharing and accessing information and knowledge with each other.

Another very pressing issue that the company faces in both the short and the long term is what key competences the firm should focus on. Interviewee D (2018), the head of the PMO, states that the firm will have to determine short-term what competences it wants to focus on offering, thus being forced to assess what the market and their customers will be asking for in the not so

distant future. This has of course been a challenge historically for the firm even with tier one staffing, but the situation is quite different when trying to sell whole projects and solutions to customers. Before if a customer asked for a consultant with a certain expertise the firm could simply hire a fit consultant, if they could, and that was that. With the higher tiers the firm instead perhaps needs to have twenty or thirty consultants within a specific field to fill a certain project group and that number of consultants is of course virtually impossible to recruit on demand if not already in the company. The firm will have to determine the areas it wants to be profiling within, and according to interviewee D this work needs to start promptly.

## 6.2 Long-term challenges

The company is in its early stages of its business model transition and many initiatives and branches involved in this transition, like the PMO, the PMN and the academic-inspired programme, is as the empirical findings show in its early evolving stages. How these initiatives evolve and interact with the firm as it continues its transition will, according to the researchers, have big impacts on if the company is to successfully grow and acquire more project deals. In this section the researchers will explore and identify the difficulties and enablers the company faces in the long-term. The researchers will play with the thought of the company growing in size and having a higher percentage of higher tier deals in progress. Again, as mentioned in the short-term challenges the lack of a clear KM-strategy from the executive branch of the firm is a huge hindrance for the KMS that are in place to work properly (North et al, 2018; Wiig, 1997; Halawi et al, 2005; Santhanam & Hartono, 2003).

As the company grows, the first and foremost thing that will, according to many interviewees, become a problem is the way recruitment work and finding consultants within the company with specific competence. While this is also an immediate problem, the ramifications will be more severe if nothing is done in the long-term and the company continues to grow in size. As many interviewees mention, the social interaction and contact network is right now what many, notably including the PMO, rely on to recruit and find the correct consultant with the right competence. What the exact number of employees is the tipping point where this practice becomes unsustainable is of course difficult to say, but many interviewees, including the head of the PMO, means that the company is very close to being there. The company risks failing in finding consultants with specific expertise and thus losing out on deals, appointing the wrong competence to the wrong projects, letting skilled consultants be idle even though there might be work for them etc. This practice also puts pressure on managers, the PMO and individual consultants to have an enormous social network across all borders of the company to satisfyingly do their job. This can of course also be seen as a good thing, but it does not suit everyone and for the company to rely on its employees will to network and keep in contact with people across the firm is, according to the researchers, risky to say the least. As interviewee K (2018) mentions as he came back from parental leave and lost his large network of contacts now had to thoroughly advertise himself within the company as few knew his trade and skills and often tried to mismatch him solely based on the flawed resume database. As the company grows this is what will happen to more and more consultants, especially newcomers, if the system is not refined and the work and recruitment process does not adapt to the change needed.

The researchers would like to add that research on various *tipping points* relating to a firm's size and its effect on KM and KMS would be of great interest and a field in which additional research could be fruitful. Many interviewees have opinions on the firm's current size and the ramifications it has on the KM process and how different aspects of KM is handled depending on the current number of employees, but they are of course only based on own observations and speculation. Actual research could perhaps point at certain *tipping points* and show at what sizes different KMS become more effective and at what point a firm simply cannot rely on social interactions to fulfill its KM processes and strategy in a satisfying way. Research on the subject emphasizes the need of support and alignment with business strategy rather than if size play an important role (Collins & Kehoe, 2017). Formal KM are not often used in combination with Small and medium sized enterprises (SMEs) due to several reasons. SMEs are focused on running the day to day business and therefore have no time with KM, the informal network is good enough to get the job done for employees which allows for flexibility and KM is only viable for an organization with a large number of employees (Kumta, 2008). While current research on the topics of KM focuses primarily on actual systems and activities developed in large organizations and that research on SMEs are highly fragmented (Massaro et al, 2016; Durst & Edvardsson, 2012). KMS versus the informal network seems to be an untouched research topic in the sense of when an organization receives more value depending on size.

An issue that is harder to tackle is that of uncertainties regarding the profitability of project deals. The fact that the only interviewees who had practical experience and in-depth knowledge about actual project work of the higher tiers were very skeptical about its profitability is noteworthy. However, they do mention that as the company acquires more and more project deals and becomes better at adjusting prices and appoint project groups across the entire firm and not just at the local office the profitability will most likely not be an issue, and that is also the opinion of the researchers. The other risks they bring up are all relating to profitability and they are things the company will have to address and face regardless. All projects risk running in to unexpected events and time delays. To become better at handling and assessing these risks will be a long-term challenge the firm will have to work on in order to stay competitive, and it is the researchers' opinion that all the KM related issues has a role to play in this, since they can enable the knowledge necessary for proper risk evaluation and analysis.

Another major challenge the firm is facing is the complete lack of structure regarding knowledge management many interviewees mentions, relating to the lack of a clear strategy. To have KMS work effectively and support the KM process, Grover & Davenport (2001) presses the importance of having a clear KM strategy from top management in place since the way you set up various KMS is highly dependent on the overall strategy. Silver (2000) mentions that if KMS to work properly and as intended, it has to be developed and deployed with the organization's culture in mind. One could argue that this is not the case in this firm, as many of the systems implemented has been pushed through from the main branch abroad and the cultural and organizational fit is lackluster to say the least. The culture is, as stated earlier, also in a transitioning phase as there are so many new employees mixed with the ones from the *old school* and one coherent organizational culture can, in the opinion of the researchers, not yet be recognized. As the executive branch was replaced many new initiatives and guidelines have

been implemented, the resume database, the academic-inspired programme and the SharePoint solution being the most prominent ones. While all these relate to KM, there is simply no overall structure or strategy relating how things should be done, what should be done in certain situations and what the management expects of the employees. Some interviewees mention that there might be clear guidelines but that they have never seen them or heard anyone follow them. While the firm might be okay in the short-term with the existing systems and platforms being refined, if and when the firm grows and acquires a significant amount of high tier projects the lack of KM-related structure and strategy might become a problem that needs to be addressed. For example, all project groups follow the same routines when documenting, recruiting and finalizing projects is of utmost importance if the firm wants to be serious about KM, and this is as of right now impossible without a clear structure to back the existing systems up (Wiig, 1997). The KM strategy issue can also be explained by the change the firm has undergone over the past few years. As more than half of all managing positions have been replaced with new faces the organization has been mixed with people from the old firm and culture, and people that jumped on the ship with the conditions of the new business model. As Hellstrom et al's (2001) and Wickenberg's (2014) research suggest, whenever a firm implements changes relating to KM there seem always to be inner resistance. Add the fact that so many managers are new at the firm one could argue that there might not be any coherent decision making, that new employees might lack the ability to take initiatives and the old ones might still have a strong grip of the firm's strategic way forward even though top management have clearly stated its intended path. Adding these factors together could result in the lack of strategy and structure in the field of KM at the firm. If a firm faces inner resistance, which as suggested arguably could be the case of the firm in this study, it is according to Beer et al (1990) important to put individuals in new organizational contexts by creating new roles, responsibilities and relationships. To break these inner resistances the firm has created said new roles, responsibilities and relationships from initiatives such as PMO, PMN and the academic inspired programme, all of which are crucial for the firm to accomplish a companywide feeling of change and in creating new organizational contexts. This is essential to make the transition successful and to achieve a firm-wide change in behavior and attitudes among employees of all hierarchies (Beer et al, 1990). To make these initiatives effective and work as intended it is the researchers' belief no big changes are necessarily warranted but instead continuously working on changing the attitude of employees and the overall culture of the firm. This will in the long run, if satisfyingly implemented, result in effectively functioning PMO, PMN and SharePoint platforms, because most of the facilitating conditions are there and present; It is the implementation and incorporation that the firm is struggling with and what needs to be most urgently addressed. The researchers see, for example, a big potential for improvement in *forcing* middle management into changing its attitude more towards this new corporate culture that top management is trying to implement. As long as the consultants' managers, and their managers, are not completely onboard, it is naturally very difficult to make this company wide change that the firm needs in order to fully adapt and facilitate excellent knowledge management. The firm will never reach a fully and prosperously functioning KM system integration as long as the whole firm is not onboard. They all need to work in the same direction and toward the same goals, which should clearly be stated and supported by managers on all levels. Only then can these initiatives and systems fully be utilized.

## 7. Conclusion

The purpose of this thesis was to better understand knowledge management challenges that a consultancy firm may encounter when making a transition of its business model. The literature review presents the essence of knowledge management and the intention with its use through IT-systems. The process of building and implementing a proper knowledge management system is rather complex and is highly dependent of strategy, organization and culture to be made effective. Furthermore, the theory of culture and change presented in the literature review has proved vital when understanding the transitional change, the firm is undergoing.

The researchers have identified several knowledge management related challenges at the firm of which this research is based. Some of them are according to the researcher's immediate issues which the firm should acknowledge and tackle in the short-term and are mostly relating to the firm's knowledge management systems and how they are used and utilized by both consultants, managers and other parts of the company. These include issues with support systems for in-house knowledge, challenges with documentation and overall trouble in engaging people in knowledge-sharing activities. Others are of a more long-term nature and are challenges that the firm will face when it continues its path of transitioning into higher tiers of project deals. These challenges include ones of cultural, managerial and strategic nature, all of which will require the attention and thorough involvement of the top management. For these issues to be resolved the firm needs to determine a strategy for KM and facilitate this strategy through structures and processes in the organization. Afterwards the KMS should be used and developed with these factors previously mentioned in mind if the firm is to fulfill their knowledge management vision in a satisfying way.

## References

- Alavi, M., & Leidner, D. E. (1999). Knowledge Management Systems: Issues, Challenges and Benefits. *Communications of the Association for Information Systems*, 1(7), 2-36.
- Beer, M., Eisenstat, R. A., & Spector, B. (1990, 11). Why Change Programs Don't Produce Change. *Harvard Business Review*, 68 (6), 158–166.
- Brown, J. S., & Duguid, P. (2001). Knowledge and Organization: A Social Practice Perspective. *Organization Science*, 12(2), 198-213.
- Collins, C. and Kehoe, R. (2016). Examining Strategic Fit and Misfit in the Management of Knowledge Workers. *ILR Review*, 70(2), pp.308-335.
- Durst, S., & Edvardsson, I. (2012). Knowledge management in SMEs: A literature review. *Journal of Knowledge Management*, 16(6), 879–903.
- Easterby-Smith, M., Thorpe, R., & Jackson, P. R. (2015). *Management and business research*. Sage.
- Edmondson, A., & McManus, S. (2007). Methodological Fit in Management Field Research. *The Academy of Management Review*, 32(4), 1155-1179. Retrieved April 20, 2018, from <http://www.jstor.org.proxy.lib.chalmers.se/stable/20159361>
- Eisenhardt, K. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, 14(4), 532-550. Retrieved April 20, 2018, from <http://www.jstor.org.proxy.lib.chalmers.se/stable/258557>
- Frappaolo, C., & Capshaw, S. (1999). Knowledge Management Software: Capturing the Essence of Know-how and Innovations. *Records Management Quarterly*, 33(3), 44- 48.
- Gioia, D., Corley, K. and Hamilton, A. (2012). Seeking Qualitative Rigor in Inductive Research. *Organizational Research Methods*, 16(1), pp.15-31.
- Grant, Robert M. (2010). *Contemporary strategy analysis*. Barcelona: John Wiley & Sons Ltd.
- Grover, V., & Davenport, T. H. (2001). General Perspectives on Knowledge Management: Fostering a Research Agenda. *Journal of Management Information Systems*, 18(1), 5-21.
- Halawi, L. A. (2005). *Knowledge management systems' success in knowledge -based organizations: An empirical validation utilizing the DeLone and McLean IS success model* (Order No. 3169717). Available from ABI/INFORM Collection. (305348631). Retrieved from <http://proxy.lib.chalmers.se/login?url=https://search-proquest-com.proxy.lib.chalmers.se/docview/305348631?accountid=10041>
- Halawi L, Aronson J & McCarthy R (2005). “Resource-Based View of Knowledge

Management for Competitive Advantage” *The Electronic Journal of Knowledge Management*, Volume 3 Issue 2, pp 75-86, available online at [www.ejkm.com](http://www.ejkm.com).

Hansen, M. T., Nohria, N., & Tierney, T. (1999). What's Your Strategy for Managing Knowledge? *Harvard Business Review*, 77(2), 106-118.

Helie, Sebastien; Sun, Ron (2010). Incubation, Insight, and Creative Problem Solving: A Unified Theory and a Connectionist Model. *Psychological Review*. 117 (3): 994–1024.

Hellstrom, T., Malmquist, U., & Mikaelsson, J. (2001). Decentralizing Knowledge Managing Knowledge Work in a Software Engineering Firm.

Kerr, J. & Slocum, J. (1987). Managing Corporate Culture Through Reward Systems. *Academy of Management Perspectives*, 1(2), pp.99-107.

Kilmann, R., H., Saxton, M., J., & Serpa, R. “Issues in Understanding and Changing Culture,” *California Management Review* 2 (Winter 1986), pp. 87–94.

Kumta, G. (2008). Knowledge management in small & medium enterprises. In Y. Cader (Ed.), *Knowledge management integrated: Concepts and practice. Abu Dhabi, United Arab Emirates: Heidelberg Press.* (pp. 117–130).

Massaro, M., Handley, K., Bagnoli, C., & Dumay, J. (2016). Knowledge management in small and medium enterprises: a structures literature review. *Journal of Knowledge Management*, 20(2), 258–291.

McDermott, R. (1999, Summer). Why Information Technology Inspired But Cannot Deliver Knowledge Management. *California Management Review*, 41(4), 103-117.

Nonaka, I. (1991). The Knowledge Creating Company. *Harvard Business Review*, 69(6), 96-104.

Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba and Leadership: A Unified Model of Dynamic Knowledge Creation. *Long Range Planning*, 33 (1), 5–34.

North, K. & Kumta, G. (2018). Knowledge Management. *Springer Texts in Business and Economics*.

Ollila, S., Styhre, A. and Werr, A. (2015). Managing Knowledge Integration: Balancing Professional and Managerial Logics in an Engineering Consulting firm. *German Journal of Human Resource Management: Zeitschrift für Personalforschung*, 29(2), pp.131-148.

Polanyi, Michael (1966). *The Tacit Dimension*. University of Chicago Press: Chicago, 4.

- Patel, R. & Davidsson, B. (2011). *Forskningsmetodikens grunder: att planera, genomföra och rapportera om en undersökning*. Studentlitteratur. Lund
- Santhanam, R., & Hartono, E. (2003). Issues in Linking Information Technology Capability to Firm Performance. *MIS Quarterly*, 27(1), 125-153.
- Schein, E. H., "Organizational Culture," *American Psychologist* 45, no. 2 (1990), pp. 109–19.
- Shani et al. (2009) *Behavior in Organizations - An Experiential Approach*, New York: McGraw-Hill/Irwin
- Schilling, A., Werr, A., Gand, S. and Sardas, J. (2012). Understanding professionals' reactions to strategic change: the role of threatened professional identities. *The Service Industries Journal*, 32(8), pp.1229-1245.
- Silver, C. A. (2000). Where Technology and Knowledge Meet. *The Journal of Business Strategy*, Nov/Dec 21(6), 28-33.
- Turban, E., & Aronson, J. E. (2004). *Decision Support Systems and Intelligent Systems*. 7th Edition, Upper Saddle River, NJ: Prentice Hall.
- Von Nordenflycht, A. (2010). What is a professional service firm? Toward a theory and taxonomy of knowledge-intensive firms. *Academy of Management Review*, 35(1), pp.155-174.
- Werr, A. (2012). Knowledge Integration as Heedful Interrelating – Towards a Behavioral Approach to Knowledge Management in Professional Service Firms. In M. Reihlen & A. Werr (Eds.), *Handbook of Research on Entrepreneurship in Professional Services*. Cheltenham: Edward Elgar. Pp. 23-41.
- Wickenberg, J. (2014). Working but Threatening? On the Trade-Off Between Efficiency and Legitimacy in the Design of Knowledge Transfer Methods in Project Management. In *International conference on organizational learning, knowledge and capabilities (olkc)* (pp. 1–15). Oslo, Norway.
- Wiig, K. (1997). Knowledge management: Where did it come from and where will it go? *Expert Systems with Applications*, 13(1), pp.1-14.

## Appendix 1 - Interview template

1. What is your role in the firm? Areas of responsibilities? What can a normal working day look like?
2. What relation to or how far away from the consultants are you working in your position?
3. How well do you think the firm's consultants' knowledge, competences and experiences are managed and taken care of within the firm?
4. Is the high turnover rate a problem in the firm? If so, how do you or the firm work to retain consultants? Is there being done enough?
5. What party is most important to stand behind, your consultants or your customers? How does the balance look?
6. What do you know about the term Knowledge Management? How do you experience knowledge management in the firm?
  - a. Are there any ongoing initiatives right now?
  - b. Have you been involved in any projects to improve the management of knowledge and expertise?
  - c. How well do you think the firm's consulting business is put together in regard to KM?
7. How does the firm spread knowledge within the organization? To what degree do consultants from different branches get together and share knowledge and experiences?
8. What does your databases look like? Is it easy to search for earlier projects? Room for improvement?
9. How well do you think the systems work in its goal to help consultants and their teams with their work?
10. How frequently does the resume database / project database get utilized?
11. What does the exchange between teams look like, and between divisions, relating to knowledge and information?
12. How do you view this change and transition the firm is currently undergoing? How does it affect your work?
13. Is the transition necessary and if so, why is the transition or change necessary for the firm?
14. What KM hindrances do you think there are with the transition of going from selling consultants per hour to the more project-based model?
15. How has the change affected the corporate culture at the firm? Is it an enabling culture of KM or does it hinder proper KM?
16. Do the corporate structures enable an open dialogue and knowledge sharing at the firm?
17. How do you work with new projects / assignments? What is the normal working process? How do you get assigned to a project?
18. How do you and your consultants handle problems relating to experience and expertise?