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CRITICAL SUCCESS FACTORS AND BARRIERS AFFECTING THE SUCCESSFUL IMPLEMENTATION OF THE GENERAL DATA PROTECTION REGULATION: A multiple case study of three companies operating in the banking and insurance industry

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ABSTRACT

Purpose: This master thesis aims to identify the most important critical success factors (CSFs) and barriers when implementing the GDPR, as well as how these impacted the implementation in three companies within the banking and insurance industry.

Design/methodology/approach: Multiple case study of three banking and insurance companies. A total of 11 key participants was interviewed, in addition to a survey with 30 respondents, where all were from the three companies. Additional documents was provided by the companies.

Findings: The most important CSFs found were: *Top management support, sufficient resources put into the project, employees with sufficient competence on the subject, having a core team that shares their expertise and recommendations, starting early, and information and awareness regarding the GDPR and the project.* The most important barriers found were: *complex issues and solutions, gap between those who understand the law and those who are going to execute the law, time pressure, difficulties with interpreting the regulation, and lack of understanding the regulation and what it means for the business.* How these impacted the implementation of the GDPR was also discovered.

Implications: This research highlights three practical implications: first, it was more important to focus on the barriers than the CSFs. Second, the CSFs and barriers depend on each other by being intertwined due to the complex nature of the project to ensure a successful implementation of GDPR. Third, which CSFs and barriers the companies consider as important when implementing the project, as well as when they are important, depend on what the companies consider as their implementation process. This thesis also provides theoretical implications by uncovering two CSFs and four barriers for GDPR implementation not identified in previous research which provides extensive knowledge to this field.

Future research: Future research should focus on whether the identified CSFs and barriers in this study differ between projects and industries, as well as rank them in terms of importance. Moreover, future research should use other research methods when investigating the findings in different contexts.

Key words: General Data Protection Regulation (GDPR), project implementation, project success, critical success factors (CSFs), barriers, barriers for implementation, CSFs to project implementation, project management, banking, insurance.

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1.0 INTRODUCTION

Companies that operate within the EU have for the past few years been in the process of implementing the new EU privacy regulation, the General Data Protection Regulation (GDPR). Given the increased digitalization of the economy, companies are now processing huge amounts of personal data regarding individuals. It is therefore crucial that they can assure their customers that their personal data will not be abused or stolen (Mikkelsen, Soller & Strandell-Jansson, 2017). The implementation of the new privacy regulation has been a demanding process which led to a shift in how to deal with systems, how to share information within the company, how to create more effective solutions, and how the companies communicate with their customers.

The GDPR impacts any organization that deals with information of current, past or prospective customers in the EU. Several aspects of the GDPR builds on pre-existing legislations (Williams, Cregeen & Scarffe, 2018). The new regulation will replace the already existing European Union legislation from 1995, and concerns all citizens in the EU as well as every institution and individual that processes personal data of citizens in the EU (Official Journal of the European Union, 2018). The GDPR seeks to achieve two objectives: strengthen the rights the individual has over their personal data, and hold businesses responsible for ensuring a higher standard of privacy. More specifically, the GDPR introduces two specific rights derived from the more fundamental concepts of data protection, namely ‘the right to withdraw consent’, and ‘the right to be forgotten’ (Politou, Alepis, & Patsakis, 2018).

Through this master thesis we aim to provide a thorough understanding of which CSFs and barriers are important when implementing the GDPR. We define CSFs to be the factors or actions which contributed to the successful implementation of the GDPR. We define barriers as those factors or actions that hindered the implementation of the GDPR or somehow worsened the project. Further, we consider success to be a prerequisite for the term implementation. In this thesis, we consider implementation to be the process from where a company establishes the GDPR project and implements new systems or adapt the old ones, to where the new systems are in use, and the company is compliant.

Theory regarding CSFs and project implementation has been thoroughly examined by several researchers throughout the years (Jiang, Klein & Balloun, 1996; Kuruppuarachchi, Mandal, & Smith, 2002; Pinto & Slevin, 1987; Scott, 1996; Serrador & Turner, 2015; Slevin & Pinto, 1986; Tan, 1996). Several researchers have also been critical to the CSF approach (Belassi & Tukel, 1996; Fortune & White, 2006; Larsen & Myers, 1999; Nandhakumar, 1996). In addition to the lack of consensus between researchers regarding which factors actually indicate project success, two critical areas are 1) that the inter-relationships between different factors are of importance without being considered within the CSF approach, and 2) implementation has been considered a static process instead of a dynamic process, which ignores the potential for factors to have varying importance at the different stages in the implementation process (Fortune & White, 2006).

Given that the GDPR is a relatively new regulation, there is a lack of research done on the GDPR project and which CSFs and barriers that impacted it. Research done on general CSFs have generated a set of universal CSFs which can be applied to any project, while the research on barriers to implementation is limited to the context of the specific project. Therefore, we have not discovered a uniform and general way of looking at barriers to project implementation in previous literature. Although many researchers have identified barriers to software and IT-implementation (Fichman & Moses, 1999; Ika, 2009; Kuruppuarachchi et al., 2002; Niazi, 2009; Niazi, Raymond & Bergeron, 2008; Wilson, 1989; Wilson & Zowghi, 2004), to the best of our knowledge, there is no study previously done on the CSFs and barriers within implementation of the GDPR project, where they identified a research gap (Costa, da Silva & Möhring, 2018). This gap concerns the investigation of key drivers for project success in the GDPR project, which has potential for a relevant return to the area of project management (Costa et al., 2018). Kuruppuarachchi et al. (2002) further state that there are no serious attempts on studying implementation aspects within IT projects. The research done within this area has mostly focused on qualitative studies in the more ‘harder’ industries such as in engineering, construction and health, where the focus has been on the ‘golden triangle’ of time, budget and scope, as well as on statistical techniques for analyzing the research (Ika, 2009). Since there is a lack of research on project success within different organizational contexts, researchers are recommended to view project

success as more than just a universal set of criteria and CSFs. It is also emphasized that researchers should view project success in a more situational manner through using qualitative approaches such as in-depth interviews (Ika, 2009). Hence, we want to investigate the following research questions in this thesis:

RQ 1: What are the most important CSFs and barriers when implementing the GDPR in banking and insurance companies?

RQ 2: How do these most important CSFs and barriers impact the implementation of the GDPR?

Three companies within banking and insurance will serve as a basis for studying our research questions. We chose this industry for several reasons. First, ever since the financial crisis in 2008, data governance has been an important issue within the banking and insurance industry, making it a relevant industry to investigate (van IJzendoorn, 2019). Second, due to insurance companies' low ranking of trustworthiness, the GDPR is an important regulation to implement in order to increase customer trust and thereby create greater transparency (Gogstad, 2018). Finally, banks and other companies within the financial industry have been dealing with regulations for decades, and they collect large amounts of customer data, which is exposed to different people at different stages in the processes, making the GDPR crucial in this industry (Snyder, 2017). We have drawn our sample from the GDPR project groups in the different companies. The sample consists of 11 key participants from three companies who have been involved in the GDPR implementation process, in addition to 30 employees who responded to the survey. All companies have been dealing with the GDPR, and is considered large companies within their field. This research is useful for the companies in order to gain insight into their own process, as well as which CSFs and barriers they should be especially aware of, and how these impacted their implementation.

The thesis is organized as follows. In the next section we present relevant theory on the topic of projects and what determines its success, project implementation, information system implementation, CSFs and barriers. Next, we have a methodology section describing how we collected data, before we present the data results, analysis and discuss the findings. Lastly, we present the practical and

theoretical implications of this research, as well as suggestions for future research on the topic, before providing our own conclusions.

2.0 THEORETICAL BACKGROUND

Project management is a large and thoroughly investigated field, which provides a set of tools that improve people's ability to plan, implement, and manage activities in order to complete projects (Larson & Gray, 2018; Munns & Bjeirmi, 1996). Due to high competitive pressure, companies were to a larger extent dependent on developing a long-term trusting relationship with their customers, making project management a competitive weapon that generates higher levels of quality and increased value for its customers (Bidanda & Cleland, 2015; Kerzner, 2004).

2.1 What determines a project?

Theory mention several ways to define a project (Gido, Clements & Clements, 2014; Larson & Gray, 2018; PMI, 2019; Turner & Müller, 2003). With a large variety of definitions on what a project is, what determines its success is just as complex. To gain a comprehensive understanding of project success, researchers suggest separating project success from project management success, as project management success may lead to project success but not the other way around. In other words, a project could fail despite having a successful project management (Cooke-Davies, 2002; Ika, 2009; Munns & Bjeirmi, 1996).

Since projects are temporary organizations, they are better equipped to handle change compared to the functional organization (Turner & Müller, 2003). Person-, system-, and organizational development (PSO) projects deliver more than just a physical product. In a PSO project, the development of systems (the technical) happens simultaneously as the development of the people and the organization. When such a development occurs, it is easier for the receiving organization to take full advantage of what the project creates (Andersen, Grude & Haug, 2016). A PSO project is a change process, where the working environment, as well as the understanding of the organization, changes (Andersen, Grude & Haug, 2009).

2.2 Implementation

Pinto and Slevin (1988) stated 30 years ago that a project is successfully implemented if it is done on time, within budget, achieves its set goals, and is

acceptable and usable by the client. In the last decade, there has been a shift in project management towards emphasizing the implementation stage (Bidanda & Cleland, 2015; Kerzner, 2004). The implementation process was generally seen as a bridge between system developer and the user, which was regarded as successful once it was crossed.

Implementation is regarded as one of the main contributors to project success (Husseini, 2018), and describes the process of the complex concretization phase where research, visions and ideas are converted into a real world setting (Roland & Westergård, 2015). Several others have defined implementation in numerous ways, for example, Fixsen, Naoom, Blase & Friedman (2005, p. 5) defined implementation as “a specified set of activities designed to put into practice an activity or program of known dimensions”. Whereas, Fullan (2007, p. 84) stated that “implementation consists of the process of putting into practice an idea, program, or set of activities and structures new to the people attempting or expecting to change”. Others refer to implementation as putting reforms or innovation into practice (Rogers, 1995; Stoll & Fink, 1996). These definitions have several similarities, with different emphasis on ideas, visions, theory and activities in practice. Even though they have much in common, several researchers agree that there is a lack of consensus on precise definitions of implementation, making research on this topic difficult (Fixsen et al., 2005; Roland & Westergård, 2015).

2.3 Information system implementation

Since the internet made its appearance in the end of the 1990's, researchers have acknowledged information technology (IT) as a competitive advantage for companies in the marketplace. Successful information system (IS) development projects require huge amounts of resources in terms of personnel, money and time (Boehm, Chulani, Verner, Wong, 2008; Li, Yang, Klein, Chen, 2011). Generally, one of the most common techniques has been to use IT to reduce costs. However, product and service improvement is now seen as the most prominent competitive advantage, which could be obtained by using IS (Wilson, 1989). There are two elements that characterize a lot of the software implementation projects, where the first element is having a narrow focus on how the software functions in itself, and the second is a desire to deliver all-at-once scenarios where the entire software configuration is put into use at once (Fichman & Moses, 1999).

2.4 Critical success factors to project implementation

Boynton and Zmud (1984, p. 17) defined CSFs as “those few things that must go well to ensure success for a manager or an organization, and therefore, they represent those managerial or enterprise areas that must be given special and continual attention to bring about high performance”, indicating that CSFs are actions which leads to success (Ingram, Biermann, Cannon, Neil & Waddle, 2000). To successfully implement a project, many researchers have taken roots in Pinto and Selvin’s ten key factors of implementation, and have used them as a basis for their own research on project implementation (Dvir, Raz & Shenhar, 2003; Jiang et al., 1996; Müller & Jugdev, 2012; Pinto & Prescott, 1988; Shenhar, Tishler, Dvir, Lipovetsky & Lechler, 2002).

Table 1 presents different CSFs for projects found in previous research, as well as who has cited it, within the field of project management. We have looked into different types of projects in order to grasp the scope and complexity of the already existing CSFs.

Table 1
CSFs to project implementation

CSFs	Citations
Project mission	Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987
Top management support	Cleland & King, 1983; Fortune & White, 2004; Jawad, Ledwith and Panahifar, 2018; Jiang et al., 1996; Locke, 1984; Martin, 1976; Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987; Sarker & Lee, 2003; Young & Jordan, 2008
Project schedule/plan	Cleland & King, 1983; Fortune & White, 2004; Jawad et al., 2018; Locke, 1984; Martin, 1976; Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987; Sayles & Chandler, 1971
Client consultation	Fortune & White, 2004; Jiang et al., 1996; Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987
Personnel	Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987
Technical tasks	Jiang et al., 1996; Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987

Client acceptance	Jiang et al., 1996; Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987
Monitoring and feedback	Jiang et al., 1996; Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987
Communication	Cleland & King, 1983; Fortune & White, 2004; Jiang et al., 1996; Locke, 1984; Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987; Sarker & Lee, 2003
Trouble-shooting	Jiang et al., 1996; Pinto & Millet, 1999; Pinto & Prescott, 1988; Pinto & Slevin, 1987
Clearly defined goals	Baker, Murphy & Fisher, 1997; Fortune & White, 2004; Jiang et al., 1996; Martin, 1976
Competent project manager	Fortune & White, 2004; Jiang et al., 1996; Locke, 1984; Sayles & Chandler, 1971
Competent team members	Baker et al., 1997; Fortune & White, 2004; Jawad et al., 2018; Jiang et al., 1996; Martin, 1976
Resources	Fortune & White, 2004; Jiang et al., 1996; Kim, Wells Jr & Duffey, 2003; Loon, Yee, Maddzir & Bakar, 2017; Martin, 1976
Responsiveness to clients	Jiang et al., 1996
Control mechanisms	Baker et al., 1997; Fortune & White, 2004; Jiang et al., 1996; Martin, 1976; Sayles & Chandler, 1971
Progress meetings	Locke, 1984
Training personnel	Cleland & King, 1983; Fortune & White, 2004; Loon et al., 2017
Continuing involvement in the project	Sayles & Chandler, 1971
Absence of bureaucracy	Baker, Murphy & Fisher, 1997
Organize and delegate authority	Martin, 1976

Pinto & Prescott (1988) define **top management support** as: “the willingness of top management to provide the necessary resources and power for project success” (Pinto & Prescott, 1988, p. 7). Sarker & Lee (2003) and Jawad et al. (2018) mention that implementation demands a strong commitment from top management. Jawad et al. (2018) identified four enablers for top management involvement: “recognition that an effective project control system (PCS) is a hallmark of good management; coordination between different control tools & systems; clear identification of project control procedures; sell the vision of ‘effective PCS is an asset, not a burden’ to project staff” (Jawad et al., 2018, p. 7). Further, based on the work of Hammer & Stanton (1995), if the leader is not

prepared to make the commitment, the efforts made in the project are doomed to fail (Sarker & Lee, 2003). Finally, top management support was ranked the second most prominent factor, after clearly defined goals, in a ranking of system implementation success factors (Jiang et al., 1996).

Larson & Gray (2018) stated that poorly defined **project mission** is the most frequently mentioned barrier to project success. As of **project schedule and plans**, they should be straight to the point and should be written as a basis for action (Pinto & Millet, 1999; Pinto & Slevin, 1987). **Client consultation** contributes to building trust and set objectives, and should happen continuously throughout the project (Lechler & Gao, 2012). Pinto and Prescott (1988) identified **personnel** as a CSF, which entails the recruitment, selection and training of the necessary personnel for the project team (Kurupparachchi et al., 2002). **Technical tasks** refer to the availability of technology and expertise required to achieve certain tasks (Pinto & Prescott, 1990; Pinto & Slevin, 1987). **Client acceptance** is defined as “communication and active listening to concerned parties” (Pinto & Prescott, 1990, p. 307). The suitable delivery of complete control information at every stage in the implementation process refers to **monitoring and feedback** (Pinto & Prescott, 1990; Pinto & Slevin, 1987). In terms of **communication**, Pinto and Slevin (1987) stated that it means to provide key actors in the project management with the necessary information. **Trouble-shooting** basically means to put out fires, and handle surprises and deviations from the plan (Pinto & Prescott, 1990; Pinto & Slevin, 1987). Projects need **clearly defined goals** so that the team knows what they are working towards (Martin, 1976). The **project manager** is responsible for sharing past experiences, supply funding and equipment, as well as for appointing project teams and provide them with sufficient training (Fortune & White, 2004). **Competent team members** is a key enabler for project success, and was ranked the fourth most prominent factor in system implementation (Jiang et al., 1996). Jawad et al. (2018) state that organizations are responsible for making sure that the members of the project team have the necessary skills required to ensure project success. **Resources** are ranked as number five of the most prominent factors in system implementation (Jiang et al., 1996). Also, resource allocation is stated as key to determine project direction and ensure success (Martin, 1976). How quickly and well the customer receives service is defined as the **responsiveness to clients** (Jiang et al., 1996). **Control mechanisms** are different activities used to control

that the project sticks to the plans and objectives (Baker et al., 1997; Fortune & White, 2004; Martin, 1976; Sayles & Chandler, 1971). **Progress meetings** helps the project managers keep track of the progress and status of the project (Locke, 1984). Fortune and White (2004) also found that **training personnel** is a CSF related to the resources where the project manager is responsible for providing them with sufficient training. Sayles and Chandler (1971) highlighted the importance of **continuing involvement in the project**, as the success of the project depends on the end-user. To **organize and delegate authority** means deciding who is responsible for difficulties or failures with the project (Martin, 1976).

2.5 Barriers to project implementation

Barriers are obstacles that prevent or hinder implementation (University of Leeds, 2019). Research shows that the most frequently mentioned barrier to project success is poorly defined scope or mission (Larson & Gray, 2018). Weak organizational support, lack of strategic planning and cross-functional coordination, insufficient sustainability training, as well as lack of clear roles, leads to unsuccessful projects. Having a clear picture of those activities or elements required to ensure a successful completion of the project is essential (Baker, Echeverria & Kohl, 2015; Kohl, 2016). Researchers have identified several barriers to software and IT-implementation (Fichman & Moses, 1999; Ika, 2009; Kaur & Rashid, 2008; Kurupparachchi et al., 2002; Niazi, 2009; Niazi et al., 2004; Raymond & Bergeron, 2007; Wilson, 1989). The chances of successfully implementing an IT-project could increase if the following seven barriers are paid proper attention: ignorance; lack of skills; a lack of discipline; faulty or misapplied new product process; big hurry and cut corners; too many projects and not enough resources; and too confident (Kurupparachchi et al., 2002).

Further, Fortune & White (2004) mentioned that lack of top management support, combined with having a project manager that lacks competence on the job, might be a reason for why projects fail. Lack of trust in data security also inhibits further digital growth (Mikkelsen et al., 2017). Lastly, seven barriers that could prevent GDPR readiness have been identified: ambiguity of European legislation; lack of time; lack of guidance by authorities; low priority; low budget; lack of right tools or technology; and lack of expert staff (Faifr & Januska, 2018). This information has provided us with an understanding of the project management field, as well as

existing research done on CSFs and barriers to project implementation. In the next chapter, we will present our research approach and how we gathered our data.

3.0 METHODOLOGY

This chapter describes the research method. We start by presenting the research design, then the data collection, followed by analysis, reliability and validity, and research ethics. A combination of qualitative and quantitative approaches is favorable in this research. The work by Holme (1996) state that there are several benefits when combining qualitative and quantitative research methods, such as analyzing the phenomenon from different angles. By using a qualitative method as preparation for the quantitative method, we were able to explore our research questions through the use of interviews and documents before using the quantitative survey to answer them. By combining these two methods, one can ensure a certain empirical ground, which further creates a foundation for constructing the best measurement tools for the primary objective of the research (Grønmo, 1982; Holme, 1996).

3.1 Research design

We found it appropriate to use a multiple case study research design since the GDPR is a relatively new field, where collecting several cases is an advantage (Bryman & Bell, 2015). Also, the evidence will be more robust and reliable (Baxter & Jack, 2008). Building theory based on multiple cases will normally generate more powerful, universal, and testable theory compared to single-case research (Eisenhardt & Graebner, 2007). We seek to determine which CSFs and barriers impacted the implementation of the GDPR, which we cannot determine without the context of the three companies. Some might argue that the use of a cross-sectional design would be more appropriate, however, we are not able to produce any general findings, which is why we find the multiple case study design appropriate (Bryman & Bell, 2015). By using the multiple case study research design, it allows us to combine and contrast our findings across several cases and identify what is unique or common across these (Bryman & Bell, 2015; Yin, 1994; Eisenhardt, 1991; Eisenhardt & Graebner, 2007).

To use a combination of qualitative and quantitative research is also possible within this research design (Bryman & Bell, 2015). We chose to use one method for collecting data within the quantitative research design, as well as two methods within the qualitative design, where this approach of combining three methods of studying the same phenomenon is known as triangulation (Bell, Bryman & Harley, 2018; Bogdan & Biklen, 2006), and strengthens the case study approach by reinforcing grounding of theory by triangulation of evidence (Eisenhardt, 1989). The qualitative methods are interviews and documents, while the quantitative method is the survey. For the purpose of the case study, we chose descriptive questions to investigate the implementation process of the GDPR. Yin (2012) stated that using a case study is appropriate where research addresses descriptive questions, such as ‘what’ is happening or has happened.

3.2 Data collection

3.2.1 Choice of company

We chose three companies that operates within the banking and insurance industry since this industry is thoroughly regulated and therefore better equipped to deal with additional regulations. The selected companies are relatively large in the Norwegian setting of banking and insurance, and will be referred to as company A, B and C. The interviewees are anonymized as A1, A2, B1-B4, and C1-C5 in the data results, and based on these individual data results, we will analyze and discuss the findings from these as company A, company B and company C, respectively. The selection of respondents within the companies is based on purposive sampling since the goal is to sample cases in a strategic way, where those who are sampled are relevant for the research questions. Thus, we chose the people and organizations based on their relevance for the GDPR implementation, meaning that our approach is a stratified purposive sampling (Bryman & Bell, 2015). We have conducted interviews with both the parent company and its subsidiary in two of the companies, on different occasions, but we present the data as one company in the same section.

3.2.2 Interviews

When looking into a phenomenon such as the GDPR, a qualitative approach is appropriate since we are dealing with large amounts of data, and since this type of data is often expressed in words (Sekaran & Bougie, 2013). For collecting data, we

chose interviews as a data source since it is an effective way to gather strong, empirical data (Yin, 2012; Eisenhardt & Graebner, 2007). Further, since the participants in the study are key informants, the insights from the interviews will be of greater value (Patton, 2002; Yin, 2012).

Unstructured interviews, or open-ended interviews, are mentioned as a way of providing richer and more extensive material (Yin, 2012). In this type of interviews, an interview guide is developed where the researcher(s) typically has a list of topics or issues they wish to cover (Bryman & Bell, 2015; see Appendices I and II). We chose to do open-ended interviews with 11 key participants. By using open questions, the interviewees were encouraged to respond however they wanted (Bryman & Bell, 2015). We had some questions prepared before the interviews took place, however, they were not followed in chronological order, nor asked in the same manner for each interview, which is typical for an unstructured interview (Bryman & Bell, 2015). In regard to what type of questions were asked: introductory; direct; interpreting; and specifying questions were used, which are common questions in qualitative interviewing. Further, a minimal amount of probing was used when we asked follow-up questions, where the interviewees could elaborate on what they said so we could get a more thorough explanation from the participants if necessary.

The interviews were audio recorded and transcribed with approval from the interviewees. We chose to use audio-tapes and transcribe the interviews ourselves to make sure that everything said in the interviews was included, while making sure we were highly alert. This also made it possible to notice not only what the participants said, but how they said it (Bryman & Bell, 2015). The interviews done in Norwegian were first fully transcribed, before being translated into English. Since some of the Norwegian sayings are difficult to translate into English, we have adapted these to fit our purpose. We also evaluated the purpose of each question after every interview to figure out what worked, what should be asked in a different way, or what should be removed. Thereafter, we sent the revised questions to the next interview object and so on. Each interview is therefore unique in a way, but the essence of the questions is the same. The interviews lasted from 30 minutes to almost three hours. A presentation of the interview objects and their functions is presented in Table 2.

Table 2:
Presentation of interview objects and their functions

Interview object	Function of respondent	Interview mode	Date
A1	Group DPO	Face-to-face	13.02.2019
A2	CISO/DPO	Face-to-face	13.02.2019
B1	Data protection manager	Face-to-Face	25.02.2019
B2	Project manager	Video conference	25.02.2019
B3	CISO	Video conference	25.02.2019
B4	Project leader	Video conference	25.02.2019
C1	IT-responsible	Telephone	27.02.2019
C2	DPO	Telephone	27.02.2019
C3	Privacy advisor	Face-to-Face	28.02.2019
C4	IT-responsible	Video conference	28.02.2019
C5	DPO	Video conference	28.02.2019

3.2.3 Survey

For the purpose of this research, quantitative data was collected in order to convert the qualitative data obtained from the interviews, into quantitative scales for further analysis of which CSFs and barriers were most important (Patton, 2002). During the interviews we discovered a total of 25 CSFs and 24 barriers based on the interviewees' opinions and experiences. We found that most companies had an average of 10 stated CSFs and 10 stated barriers. To identify which of the 25 CSFs and 24 barriers were the most prominent, we included a survey where the respondents could choose which eight CSFs and barriers they found most prominent (Appendix III). Since the most common average of CSFs and barriers were 10 in each company, we did not want to exceed this average, since some CSFs and barriers could get the same amount of responses. Thus, this was the rationale for asking the respondents to choose eight CSFs and barriers. As predicted, several CSFs and barriers got the same amount of responses (Appendices IV and V), resulting in nine most prominent CSFs and barriers when implementing the GDPR. These nine CSFs and barriers that emerged from the quantitative data analysis

provide the basis for the rest of the study. The survey was distributed to the primary contact persons in each company, who then distributed it to members of their GDPR projects, where we received a total of 30 responses. An overview of the total results provided by the survey is presented in Appendices IV and V.

We were particularly aware of avoiding technical terms in the survey, since the terminology in the GDPR is difficult. In regard to how the variables were formulated, we focused on avoiding negatives by removing the word ‘not’, so the respondents would not answer in the opposite way of what they intended. Words such as ‘often’ and ‘regularly’ were avoided, since these words are ambiguous and respondents might interpret them differently. The length of the survey was also taken into account, so respondents would not be confused or tired. We considered that all participants had prior knowledge about the project and were able to understand the questions, and thereby qualified to provide valuable and insightful information regarding the most prominent CSFs and barriers (Bryman & Bell, 2015).

3.3 Data analysis

The interviews serves as a basis for the qualitative analysis, where the primary analytical phase is coding of data, which is one of the most central tools in grounded theory (Bryman & Bell, 2015). Coding refers to the process of defining what is happening in the data and addresses the link between the information and development of new theory (Bryman & Bell, 2015; Charmaz, 2014). We started the coding process by transcribing the data gathered from the interviews. Thereafter, we roughly went through the data to get an overview, where we highlighted the main content addressing the companies’ implementation process, CSFs and barriers. Subsequently, we scoured through the findings and got a clear sense of the specific data relevant for this thesis. The highlighted data was then reviewed and sorted into CSFs and barriers as a way to simplify the findings. The data was then analyzed with the aim to identify CSFs and barriers present in the implementation of the GDPR. This provided us with a list of 25 CSFs and 24 barriers which serves as a basis for our quantitative analysis.

Analyzing quantitative data typically occurs at a later stage in the overall process (Bryman & Bell, 2015). The qualitative data worked as a basis for the survey, which generated the quantitative data. The CSFs and barriers displayed as most prominent

from the survey (see Figures 4 and 5) relates to which CSFs and barriers were selected most frequently by the respondents. Therefore, the quantitative analysis resulted in a ranking of the CSFs' and barriers' importance based on the number of responses each CSF and barrier received from the survey. The percentage of the responses in the survey presented in Figures 4 and 5, is used as an indication of the strength of the most prominent CSFs and barriers. Whether the most prominent CSFs and barriers were stated by the interviewees from each of the companies is illustrated in Tables 9 and 10. The presence of these CSFs and barriers across companies are further presented in a cross-case comparison. In this section, we also include evidence of the most prominent CSFs and barriers in the companies that did not specifically state them as CSFs or barriers, if they are present in those companies. Thus, the end result to which CSFs and barriers are most important, as well as how it has impacted the implementation of the GDPR, is based on the analysis of all data collected.

3.4 Reliability and validity

In terms of reliability and validity of a study, several ways of measuring this has been identified (Bryman & Bell, 2015). Reliability is defined as "the degree to which a measure of a concept is stable" (Bryman & Bell, 2015, p. 727), meaning whether the results of a study are repeatable, and consists of both external and internal reliability (Bryman & Bell, 2015). Inter-rater reliability deals with the possibility of a lack of consistency in the researchers' decisions in regard to observing or translating data with more than one rater involved (Bryman & Bell, 2015). Since we have large amounts of data, both qualitative and quantitative, there is a possibility of interpreting it in different ways, meaning that inter-rater reliability could be an issue. For qualitative research, external reliability is mentioned as a difficult criterion to meet (Bryman & Bell, 2015). This is because it is impossible to 'freeze' a social setting, or replicate the circumstances of an initial study. However, there are ways of approaching the constraints of external reliability. Here, Bryman & Bell (2015) mention that researchers who engage in qualitative research should adopt a similar social role as the original researcher. Nonetheless, it could never be accounted for that researchers conducting a qualitative study hear and see different things which will not be comparable with what was done during the original research.

Validity refers to whether you are measuring, observing or identifying what you say you are. Since measurement is not a major preoccupation among qualitative researchers, the issue of validity would seem to have little bearing on such studies (Bryman & Bell, 2015). LeCompte and Goetz (1982) argue that internal validity is a strength in qualitative research, due to the long extent of the participation period where the researcher can secure a high level of compatibility between concepts and observations. External validity, also known as generalizability, is viewed as a problem in qualitative research as it has a tendency to rely on small samples and case studies, and is therefore difficult in qualitative research (LeCompte & Goetz, 1982; Bryman & Bell, 2015). Even though we have chosen a multiple case study, the companies chosen is a small representation of the total population within the banking and insurance industry, and we therefore focus on the uniqueness of each case, and develop a thorough understanding of its complexity (Bryman & Bell, 2015).

3.5 Research ethics

In order to ensure that the data was collected, stored and analyzed in accordance to Norwegian law, we consulted the Norwegian Centre for Research Data (NSD) and followed their guidelines. We submitted a form before getting approval to start our project, and then followed the guidelines and restrictions provided by the NSD. All participants in this study participated voluntarily and signed an informed consent form prior to the interview. This was done to ensure that all participants were given as much information as possible and could therefore make an informed decision of whether to participate (Bell et al., 2018). Before each interview we explained the aim of the study and repeated what the participants agreed to in the informed consent. Interview guides and information about the study was sent to all participants prior to the interview, ensuring that all parties had the correct information and were able to withdraw from the study without any consequences. Lastly, all participants and companies were anonymized to ensure that no information could be traced back to them.

4.0 DATA RESULTS

In this chapter, we first present the three companies, their relevance for the project and their implementation stages. Further, all CSFs and barriers uncovered from the interviews are presented for each company. Each of the companies' CSFs and barriers are then summarized in Tables 3-8. Furthermore, a visual representation of the nine most prominent CSFs and barriers uncovered in the survey is presented in Figures 4 and 5. Finally, a cross-case comparison based on the presence of the most prominent CSFs and barriers in all three companies is presented and summarized in Tables 9 and 10.

4.1 Companies

4.1.1 Company A

Company A is one of the largest banking and insurance companies in the Nordic and Baltic countries, with an annual revenue close to four billion NOK. Within the company there are over 6.000 employees who work towards serving its almost four million customers, where the subsidiary consists of approximately 200 employees (Internal source). They started implementing the GDPR in January 2017 when it was first recognized as a project, before this they had working groups based on their own initiative, which led to the creation of a steering group as soon as the project was established. Their planning was detailed, and contained thorough and detailed explanations of each step including the mandate, decision logs, transition plans, GDPR deliveries, line of implementation, and status reports. They also created a guide for becoming GDPR compliant. When the parent company first started the implementation they were approximately 20 people working on it, before they increased to several hundred when they realized how complex this project was. In the subsidiary, there was approximately 10 people working on the project. Figure 6 depicts their structure in the implementation phase, and is found in Appendix VI. Further, their GDPR project consisted of two phases as presented in Figure 1 (A1).

Figure 1: *A simplified model of the two phases in the GDPR project in company A*

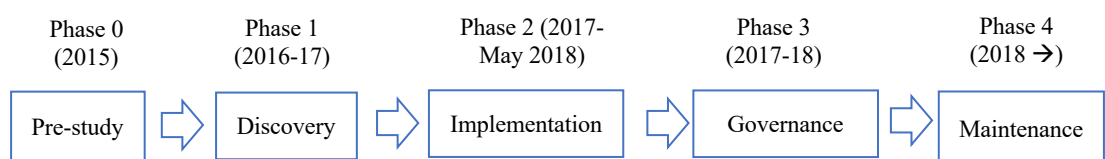


In the pre-study, their focus was to develop a gap analysis highlighting the new demands and changes required by this project. The company had a clear focus on issues that demanded ICT-development. In the implementation stage, the company focused on getting the group GDPR compliant in time for the deadline in May 2018 (A1).

4.1.2 Company B

Company B is also among one of the largest banking and insurance companies in the Nordic and Baltic countries. This company has over 3.000 employees and have been providing insurance services to their customers for over 200 years. Their total revenue in 2018 was close to six billion NOK (B1). In accordance to the GDPR, the company state that they are doing what they can to ensure their customer's privacy, and state that this project was a priority. They started the implementation process officially in January 2016, which is when they had their first official steering group meeting. The sizes of the project groups differed from department to department, and varied in terms of which country the project group worked in. There were approximately 15 people in the Nordic project group. This company considered two of five phases: the discovery and the implementation phase, to be the GDPR project, which they also believed was the implementation process itself. A roadmap to their GDPR project is presented in Figure 2.

Figure 2: A simplified model of the five phases in the GDPR project in company B

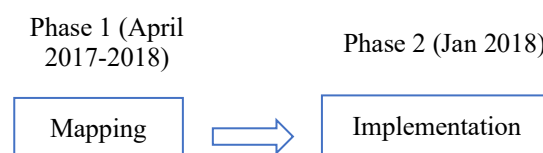


During the pre-study phase they started figuring out how to map their processes. In Phase 1, their mission was to figure out what they were processing, whether it was personal data or sensitive information, who the information was from, who do we share it with, and who is responsible from the business area. In Phase 2, they changed the project leader and changed their plans. They tried to identify the different deliveries needed, and which tasks to complete before moving on to the next phase. Phases 3 and 4 dealt with supplementary work after the implementation part of the project was completed. However, the interviewee said that Phases 3 and 4 are not relevant to the implementation part of the project (B2).

4.1.3 Company C

Company C consists of approximately 3.000 employees and the company serves around nearly one million customers. They provide their customers with services retaining to insurance, banking, pensions, real estate and savings. The company consist of approximately 70 independent banks in Norway and has an annual revenue of roughly three million NOK (C1). Company C consists of a parent company and subsidiaries. In regard to the GDPR, they state that they care about ensuring their customers safety (Internal source). They started working on the project in the spring of 2017, while the software implementation started in January 2018. When asked when they started their implementation process, the interviewee asked what we meant with ‘implementation’ (C2). Prior to starting their implementation process, they needed to get a better understanding of the regulation and therefore came up with a plan which resulted in a division into two project-tracks: one related to systems and one related to routines. In the parent company, the project group consisted of seven people. In the development team there was probably over 50 people involved from different business units (C2). Further, company C had two phases when implementing the GDPR, namely the mapping and the implementation phase, which is presented in Figure 3 (C2).

Figure 3: *A simplified model of the two phases in the GDPR project in company C*



During the mapping phase they broke down each article of the regulation and rephrased it to make it easier to understand. They did this in order to make a checklist, and then went through all of their systems. Next they ran a gap analysis to determine where their systems needed improvements, and to make sure that they were compliant with the regulation. In January 2018 they had discovered most of their gaps and started closing them by inventing new systems, as well as improve the already existing ones. Their planning and mapping phase lasted from April 2017 until January 2018.

4.2 Critical success factors

4.2.1 Company A

One important statement about this project was that it deals with everything affecting their customers, meaning their customer facing solutions which was stated as a CSF (A2). Here, the interviewee highlighted this as making their solutions user friendly and show that they understand how the systems are supposed to work for the customer (A2). “[Our customer facing solutions] is a way of proving to both our customers and the authorities that we are compliant” (A2). Being able to show compliance in accordance to the directive was further stated as a CSF (A2).

Top management support (TMS) was stated as one of the most important CSFs in this project (A1, A2), and is considered to be the factor responsible for getting this project attention: “what is anchored in top management, gets attention” (A1). The interviewee from the subsidiary stated that: “in the parent company, they do not have the same access to top management. We are working much closer together and on a wider area, while there is more silo work in larger companies” (A2). It was also stated that if this regulation was not anchored high enough in the business, this project would not bring the company any further (A1).

Sufficient resources put into the project was stated as a CSF (A1). In addition to gaining attention, the interviewee stated that the top management anchoring also determines which activities and tasks get resources (A1). The interviewee also stated that:

“This company does not live because of GDPR, GDPR is a prerequisite for our operations, meaning that it is a situation where we are competing for resources. The same resources that are dealing with daily operations and development of the company are dealing with the implementation of the GDPR” (A1).

Further, the interviewee highlighted that this has resulted in a conflict of interest related to allocating resources within the company (A2). In terms of the cooperation between the subsidiary and the parent company, it was stated that there has been a good synergy where the subsidiary have gained resources, such as templates or self-service solutions developed by the parent company (A2).

The interviewee stated that to put the people responsible close to their tasks by including the business areas and be a part of the project, was a CSF (A1). This led to a need for developing skills of the people responsible for the particular tasks.

Employees with sufficient competence on the subject was stated as a CSF (A1), where the company was said to have been dealing with personal data for almost 20 years before the emergence of the GDPR, which has given them a lot of competence in this area (A1). However, the interviewee stated that there has been a need for support and guidance despite of their extensive experience with personal data (A1). Further, it was stated that the company had a competence platform consisting of legal departments and their own DPOs which was said to be very unique compared to other companies. The parent company centralized their competence and understanding of the GDPR, before sharing this with their subsidiaries (A1). In addition, they had paid attention to the changes in privacy regulations in the EU long before the GDPR was recognized as a project (A1).

This company operates in both the banking and insurance industry, where the interviewee in the subsidiary stated that since they are in the banking industry, they have implemented similar systems in the past, where recycling similar systems already in place in the company was stated as a CSF (A2). The subsidiary also had a great deal of 'quick wins' by being a flat and nimble organization, which they also stated as a CSF (A2). Further, the subsidiary had an advantage given their already established focus on security and privacy, which was not that well incorporated in the parent company prior to the GDPR (A2).

The interviewee in the subsidiary stated that due to the digital age, all employees were competent in regard to digital tools, making the employees able to work together with the same tasks despite having different backgrounds (A2). Having a diverse set of individuals working together in the project group was highlighted as a reason for this being considered a CSF (A1, A2). It was further stated that the parent company saw the need to have large core groups of employees from the different business areas to look into the process activities done in each of them (A1).

Sufficient planning was stated as a CSF together with the ability to change when there is a need to re-allocate resources and restructure the project (A1). In regard to

whether they were the first in their industry to start with planning the project, the interviewee stated: “no one was earlier” (A1). Also, to plan the implementation of this project was stated as going by seamlessly given that their knowledge on the topic was well incorporated in the organization (A1). The company’s stated CSFs are summarized in Table 3.

Table 3:
Summary of CSFs in company A

CSFs	Stated by
Delivering user-friendly solutions to the customers (customer facing solutions)	A2
Being able to show compliance in accordance to the directive	A2
Top management support	A1, A2
Sufficient resources put into the project	A1
Close connection between the tasks and the people responsible for them	A1
Employees with sufficient competence on the subject	A1
Recycle similar systems that are already being used in the company	A2
Being a flat and nimble organization	A2
Diverse set of individuals in the project groups	A1, A2
Sufficient planning prior to the project	A1

4.2.2 Company B

It was recognized in company B that the GDPR project was more than just an IT-project, which top management focused fully on and gave a lot of support for: “there was full focus from top management to the person in the mail room. Thus, everybody needed to know where the project was going and how they were affected by it” (B2). TMS was therefore stated as a CSF. The fact that top management was included on a high level, as well as the support from the board of directors, led to this project gaining a lot of attention, where the project gaining attention was also stated by several interviewees as a CSF (B1-4).

Further, the early start and the complete mapping of all processes was stated as a CSF (B2-4). The mapping of all processes concerns what they needed to deliver, and which tasks and activities that needed to be done. The interviewee further stated that: “even though we’re further along, we should not get on our high horse, it does not mean that we’re compliant” (B2). Keeping this in mind, together with always considering the customer before making decisions, the mindset of the employees was stated by the interviewee as a CSF (B3). They also had a clear goal from the beginning which was also stated as a CSF (B4), where they also did small modifications to the plan throughout the entire process.

All interviewees from company B stated that information and awareness regarding the GDPR and project was a CSF (B1-4). The company was said to focus a great deal on understanding the regulation to increase information and awareness: “you have to understand the GDPR and then you have to understand what does this mean in practice for me, for them” (B2).

Another CSF was having a core team that shared their expertise and recommendations: “[sharing their expertise and recommendations] was key, and I think that having a core team was really important because [the core team] had the legal people with knowledge on the GDPR” (B2). Another CSF was their talented, engaged, and available project manager, without this person the project was said to not have been as successful (B1).

There was never any doubt of whether this project would get the resources needed. Several interviewees highlighted resources as a CSF, as this project was a priority and therefore got all the resources it needed (B2, B3).

“I got the resources that we needed in the project and that was very much based on the priority of the project and how management of course wanted to be compliant and they wanted things to be done, so the resources were available as needed, I didn't need to struggle to get the resources or to get their focus” (B3).

Another interviewee further stated that the project would not have been a success were it not for the sufficient allocation of resources, which was possible due to the priority of the project and the high level of TMS (B2). The company’s stated CSFs are summarized in Table 4.

Table 4:
Summary of CSFs in company B

CSFs	Stated by
Top management support	B1, B2, B3, B4
The project got a lot of attention	B1, B2, B3, B4
Start early and do a complete mapping of all processes	B2, B3, B4
Having a correct mindset - customer-oriented	B3
Having a clear goal from the start	B4
Information and awareness regarding the GDPR and the project	B2
Having a core team that shares their expertise and recommendations	B2
Talented, engaged and available project manager	B1
Sufficient resources put into the project	B2, B3

4.2.3 Company C

It was stated in company C that one of their CSFs was to do a complete mapping of all processes, and rephrased it to make the requirements and tasks clear and easier to understand (C1).

In both the parent company and the subsidiary, interviewees stated having prior knowledge about the regulation as a CSF (C1-5), and said that they had a lot of prior knowledge of regulations and directives. Furthermore, it was highlighted that operating within the banking and insurance industry has given them this advantage (C1-5). The people responsible for the project had relevant knowledge and experience, which was stated as another CSF (C1-5). “I believe it is critical that we, who are very involved in this, can see the whole picture and have extensive knowledge regarding the internal processes and systems where we process personal data” (C2).

The interviewee also stated that the engagement from the organization was a CSF (C2), where almost every employee was eager to adapt to the changes and were all very positive: “I think this is due to the high anchoring in the business, and that this is not something you do alone” (C2).

Also, cooperation across the group was stated as a CSF where the main part of the project was centralized and the new solutions and understanding of the regulation was then distributed to the subsidiaries (C1). The interviewee from the subsidiary stated that they accepted the help and the new information they got has fitted naturally into their plan: “it is a success that we managed to engage and make the entire organization responsible and conscious of the changes” (C1).

One of the interviewees stated that they worked very hard to be clear and specific in the way they communicated, where a clear and precise communication was stated as a CSF (C3). This led to everyone understanding what the regulation entailed and how that affected them. The parent company’s internal communication was also highlighted as very effective (C3).

Repetition of the demands in the regulation was stated as a CSF (C3). Since the project required a lot of maturity, the company needed to repeat the demands in several different ways to deal with the demanding and difficult information handling (C3). This was done by increasing training, as well as the information and awareness among the employees, where both aspects have been identified as CSFs (C3). By creating an e-learning option, play information videos in the common areas in the office, and writing a short book on how to handle the GDPR in their business, the company managed to increase training, information and awareness (C3).

Another stated CSF was the high level of TMS (C1-5). This was indicated by the three Executive Vice Presidents in the steering group, and by the different business units they represented. The group consisted of people from IT, Compliance, and Sales, which the interviewee said was how top management indicated that this project had a high priority and therefore provided the project with a lot of attention. With the support from top management, the company was able to carry out the necessary changes, while top management also considered the GDPR project to be a number one priority (C3).

Planning has been stated as a CSF in both the parent company and the subsidiary (C2, C3). It is apparent from the interviews that planning was important in order to

figure out what they needed to do and how they were going to do it. The interviewee highlighted that they became aware of the new regulation rather early (C2). The company’s stated CSFs are summarized in Table 5.

Table 5:
Summary of CSFs in company C

CSFs	Stated by
Did a complete mapping of all processes	C1
Prior knowledge about the regulation	C1, C2, C3, C4, C5
Relevant knowledge and experience of the people responsible for the project	C1, C2, C3, C4, C5
Engagement from the organization	C2
Cooperation across the entire group	C1
Clear and precise communication	C3
Repetition of the demands in the regulation	C3
Training of employees	C3
Information and awareness regarding the GDPR and the project	C3
Top management support	C1, C2, C3, C4, C5
Planning	C2, C3

4.3 Barriers

4.3.1 Company A

Developing new systems and technology was stated as a barrier to the implementation where the interviewee stated that: “it is a burden on the organization, it takes time” (A2). The interviewee in the insurance company stated that working with insurance systems for over 200 years has given them several generations of systems, which require continuous maintenance in order to handle the new demands of the GDPR (A1). “It is the complexity of our systems that makes this difficult” (A1). Further, the most difficult single factor was the deletion process, where the lack of processes dealing with deleting was stated as a barrier. Here, the interviewee said that a solution to make this process easier, was to create

portal solutions so that their customers could be self-served. However, the old legacy systems were not able to cope with implementing the deletion requirements since they were not made for such complexities. The interviewee highlighted that this process was expensive since you need to change entire systems (A2). The interviewee further stated that: “there is a barrier in terms of complexity” (A1). The complex nature of the GDPR led the company to focus on getting a grasp on ICT-tasks early in the implementation process, since there was a large need for system development, which required a lot of time and resources (A1).

Even though they had an anchoring in top management, the interviewee stated that the company failed in the beginning of the project due to a low degree of anchoring from top management to the lower business areas, which was stated as a barrier (A1). As a result of this, they reorganized the project, gained more resources, and included the business areas to a larger degree in the project (A1). Insufficient training of employees in all divisions was also stated as a barrier, given the complicated process of understanding what the project meant for all employees (A1). The interviewee further stated that training regarding safety and privacy is now mandatory for all employees (A2), and that they have provided their employees with e-learning courses, classroom training, video-training, and information meetings (A1).

Negative media coverage was stated as a barrier since the employees who were a part of the lower business areas, and thus not a part of the working groups, only heard about the GDPR through the media. This led to confusion since media focused on the large fees for not being compliant (A1). Employees did not understand how the GDPR was going to affect the company, which led to increased stress, where lack of stress management was stated as a barrier. To address this, the interviewee stated that top management needed to enlighten the employees in the lower business areas, by including them more directly in the project (A1). In addition, the interviewee stated: “if the fee for breaking the legislation was not 4% of the annual turnover, this project would probably not gain this much backing and attention” (A1), where fear of sanctions was stated as a barrier.

Covering the gap between those who understand the law and those who are going to execute the law was stated as a barrier (A1). The employees who understand the

law were not necessarily present in the business areas that executed the law. In smaller and more common projects, the interviewee stated that you find the answer with the one working on the task (A1), while the GDPR project was said to be broader, the people working with the tasks lack the competence to understand it.

Complex and difficult language in the regulation was stated as a barrier (A1). In terms of the difficult terminology used, the interviewee stated that: “if there were 4.000 lawyers working in this company, everything would have been a whole lot easier” (A1). Converting the legal language into a language all employees involved understood, was highlighted as difficult. Another difficulty associated with converting the legal language, was said to be the possibility of changing the terminology into something that did not explain reality (A1). Further, difficulties with interpreting the regulation was stated as a barrier (A2). Lawyers often understand the law without room for interpretation. The possibility for over-interpreting the regulation was said to increase since each employee has different interpretations of the law, which was stated by the interviewee as: “deadly, and something that could kill the entire organization” (A2).

The interviewee also stated that operating across borders was a barrier and has been difficult due to national laws and regulations (A1). Further, since the company operated across borders, establishing a project organization was said to be time consuming (A1). The interviewee in the subsidiary stated that they do not suffer from the same bureaucracy as the parent company where the interviewee stated the different levels of bureaucracy as a barrier (A2). According to this, a challenge was that the parent company wanted to use their own data protection officer in the subsidiary, to which the subsidiary said a firm no. They wanted to use their own data protection officer and keep the project inhouse (A2). The company’s stated barriers are summarized in Table 6.

Table 6:
Summary of barriers in company A

Barriers	Stated by
Difficulties with developing new systems and technology	A1, A2
Lack of processes dealing with deleting	A2
Complex issues and solutions	A1
Lack of anchoring in (the lower) business areas	A1
Insufficient training for employees in all divisions	A1, A2
Media coverage impacted employees negatively	A1
Lack of stress management	A1
Fear of sanctions	A1
Gap between those who understand the law and those who are going to execute the law	A1
Complex and difficult language in the regulation	A1
Difficulties with interpreting the regulation	A2
Difficulties operating across borders	A1
Different levels of bureaucracy within the company	A2

4.3.2 *Company B*

When asked about their prior knowledge about the GDPR, the interviewees stated that the lack of prior knowledge was a barrier: “I hadn’t even heard about the GDPR before starting the project” (B2) and “I didn’t know much about the project in advance, I didn’t really have any details nor understanding of it” (B4). At the start of this project, one of the appointed project managers thought: “how difficult could this implementation be?” (B2). It also came up during the interviews that: “nobody really felt that they were knowledgeable enough to take responsibility [for the implementation of the regulation]” (B2).

To focus too much on one area in the early stages was stated as a barrier (B2). The company had an extensive focus on looking into their systems to see what they were

doing, before realizing that they should not have focused solely on the IT-systems (B2). Further, the interviewee saw the large price tag that followed not being GDPR compliant, as a driver of the project. The fear of sanctions was therefore stated as a barrier (B2). The interviewee also stated operating across borders as a barrier, due to the fact that each country has different laws and demands (B3). In addition to what the interviewee considered the purpose of this legislation, it was stated:

“The idea was that this was going to harmonize the entire EU, but when you have different demands in certain areas, it makes it difficult for us to work across the Union, and it will be as it was with the old regulation, the divisions will be greater when it should be getting smaller” (B3).

Also, it was stated that: “we need to make sure that we balance and follow the law, but we also need to consider the national laws in each country” (B3).

The interviewee stated difficulties with interpreting the regulation as a barrier, and that “the biggest barrier was the legislation itself” (B4). The interviewee also stated that: “legal people are not always easy to understand, that was a challenge” (B2). The project group only shared their issues with the steering group and the top when it was absolutely necessary, leading to lack of information sharing with the top being a barrier, as it was said that all the issues would have been too much for the steering group to handle (B2).

In the beginning of the project, the lack of clarity around the mindset was stated as a barrier since the employees were wondering who they were doing this implementation for: “was it for our customers?” (B3) or “are we doing it to escape fines?” (B3). Internal politics was further stated as a barrier. The presence of internal politics led to issues with unhappy employees, which was also stated as a barrier (B2). The employees did not quite understand what the regulation entailed, and their tasks differed from what they normally did, to which the interviewee stated: “you have to be like a goose, that just the water runs off, because if you work on a project like this you cannot be sensitive or get your feelings hurt. It’s not personal” (B2).

Time pressure and lack of scheduling was stated as a barrier, where the interviewee stated that: “time is always challenging and even though you start the work early, something always comes up that will affect the schedule and the timeline” (B4).

Also, time was said to still be a barrier, even though the company started early (B4). The company's stated barriers are summarized in Table 7.

Table 7:

Summary of barriers in company B

Barriers	Stated by
Lack of prior knowledge regarding the project	B2, B4
Focused too much on one area in the early stages	B2
Fear of sanctions	B2
Difficulties operating across borders	B3
Difficulties with interpreting the regulation	B2, B4
Lack of sufficient information shared with the top	B2
Lack of clarity around the mindset	B3
Internal politics	B2
Unhappy employees	B2
Time pressure and lack of scheduling	B4

4.3.3 Company C

Interviewees in both the subsidiary and the parent company stated lack of understanding the regulation and what it means for the business as a barrier (C3, C4). The interviewee stated that they broke down the regulation article by article in order to fully understand and comprehend it, and since this was done by the parent company, the subsidiary was not responsible for the process mapping done in the early stages of the project (C3). The interviewee in the subsidiary stated that understanding the regulation was a barrier due to the lack of information from the EU, and that the industry was still not on top of everything regarding the requirements (C4).

Another barrier stated by the interviewee from the parent company, was difficulties with interpreting the regulation, where it was further highlighted a lack of leeway when interpreting the regulation (C3). The interviewee stated that since this is a

regulation from the EU, it differs from other laws where you can implement projects in a more suitable way, which was said to make own interpretation unfeasible (C3). It was further stated that there were difficulties with interpreting the regulation, given that the regulation first was published in English before being translated into Norwegian (C3). The first obstacle they had to overcome was the complex and difficult language in the regulation, which was stated as another barrier (C3). The interviewee stated that: “the demands from the directive have been unclear” (C4), where the unclear demands was stated as a barrier (C3, C4). Also, given these unclear demands of the regulation, the parent company spent a lot of time ‘translating’ the regulation into something understandable for everyone (C3).

Time pressure was also stated as a barrier, where the interviewee from the subsidiary stated that it was difficult to manage time since the industry standard was not yet set (C5). Further, it was stated that a barrier for the subsidiary was to not have control over the activities themselves, where they had to wait for the parent company to deliver the solutions to them (C5). Lastly, the interviewee from the subsidiary stated in the end of the interview that they did not experience any barriers or obstacles in this project, whereas it was stated in the parent company that they had experienced several (C5). The company’s stated barriers are summarized in Table 8.

Table 8:

Summary of barriers in company C

Barriers	Stated by
Lack of understanding the regulation and what it means for the business	C3, C4
Difficulties with interpreting the regulation	C3
Complex and difficult language in the regulation	C3
Unclear demands	C3, C4
Time pressure	C5
Not having control over the activities yourself	C5

4.4 Key findings through a cross-case comparison

Through the survey sent out to the companies, several of the 25 CSFs and 24 barriers summarized in Tables 3-8, were identified as more prominent than others (Appendices IV and V). These are presented in Figures 4 and 5. In this cross-case comparison, we further present evidence for their presence in the companies.

Figure 4: *Visual representation of the nine most prominent CSFs across all companies*

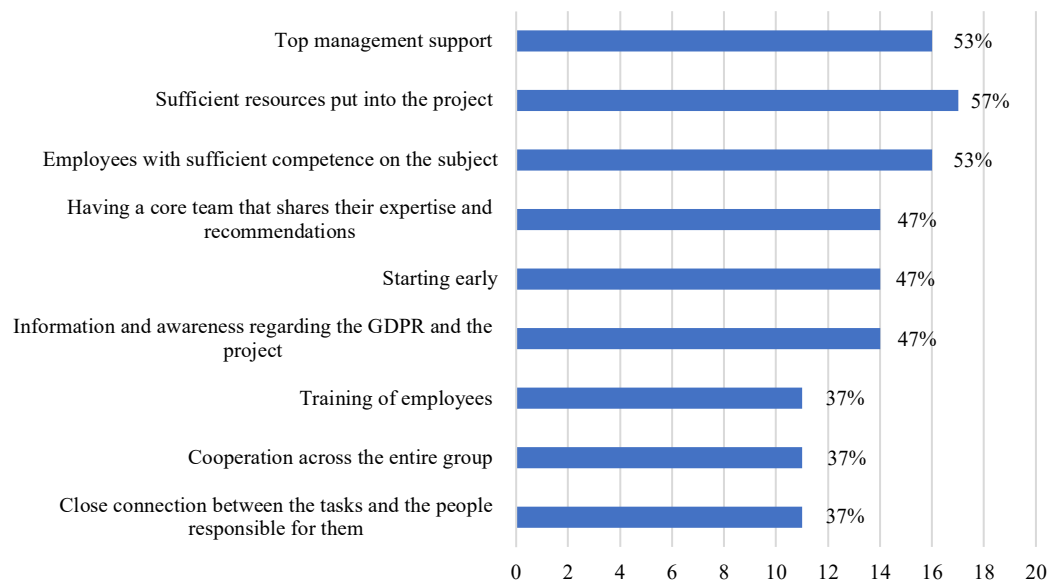
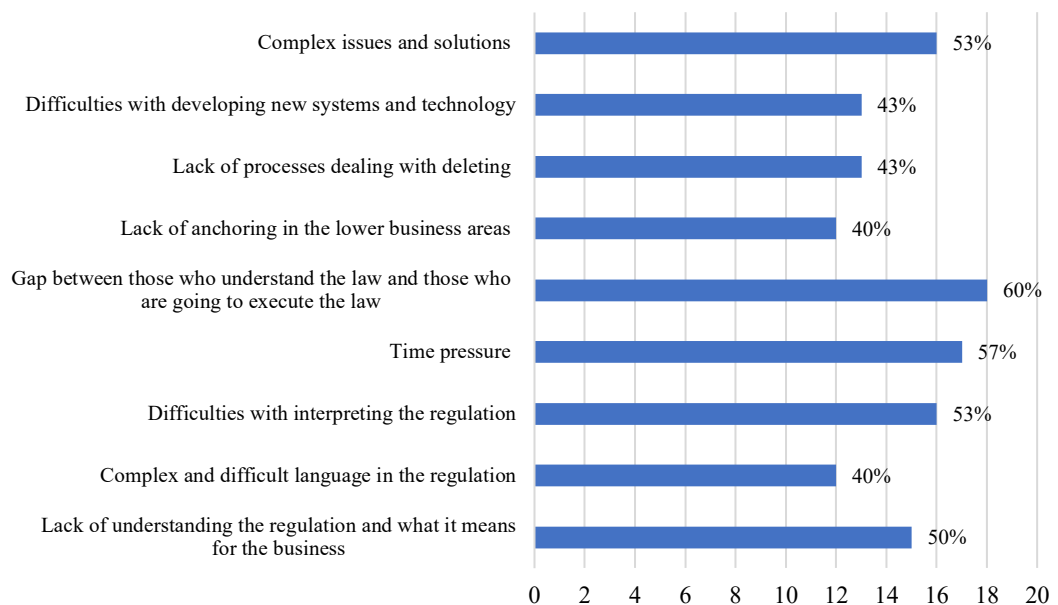


Figure 5: *Visual representation of the nine most prominent barriers across all companies*



As for their presence across companies, these most prominent CSFs and barriers are illustrated for each company in Tables 9 and 10.

4.4.1 Critical success factors across companies

The most prominent CSFs for each company is illustrated in Table 9.

Table 9:
The presence of the most prominent CSFs in each company

CSFs	Case A	Case B	Case C
Top management support	•	•	•
Sufficient resources	•	•	
Employees with sufficient competence on the subject	•		
Having a core team that shares their expertise and recommendations		•	
Starting early		•	
Information and awareness regarding the GDPR and the project		•	•
Training of employees			•
Cooperation across the entire group			•
Close connection between the tasks and the people responsible for them	•		

Note: Dots represents the presence of CSFs

Top management support

This was stated as a CSF in all three companies (A1, A2, B1-4, C1-5). Without this, none of the companies believed the project would have gotten as much attention and resources as it did (A1, B1-4, C3). It was further stated that this anchoring in top management would probably not have been as high had it not been for the sanctions and the threat of major fines from the EU (A1).

Sufficient resources put into the project

This was stated as a CSF in companies A and B (A1, B2-3), where it was highlighted in company A as a source of competition. Even though resources was not stated as a CSF in company C, it was still highlighted that they got the necessary resources to finish the project (C3).

Employees with sufficient competence on the subject

This was only stated as a CSF in company A (A1). However, it was stated in all companies that their employees' competence is of great value since this project is complex (A1, B2, C3).

Having a core team that shares their expertise and recommendations

This CSF was only stated in company B (B2). However, it was highlighted in company A that having core groups had an impact on their implementation (A1). The presence of core groups with in-house legal competence with a short distance to the rest of the business was highlighted in company C, but not stated as a CSF (C3).

Starting early

This was only stated as a CSF in company B (B2-4), even though it was stated in companies A and B that they were the first in their industry to start the GDPR project (A1, B2). It was further stated in company B that it was important to start this project early (B2-4). In company A it was stated that they were happy about starting early on this project, and that they do not understand how other companies that did not start early have managed (A1).

Information and awareness regarding the GDPR and the project

This was stated as a CSF in companies B and C (B2, C3).

Training of employees

This was only stated as a CSF in company C (C3). A lack of training and how that was more of a barrier for their implementation was highlighted in company A (A1). It was stated in company B that training was present, but not as a CSF or a barrier to implementation. However, they had three layers of training: 1) general awareness training; 2) specific training for front line-employees interacting directly with customers; and 3) training for managers, experts and analysts (B3).

Cooperation across the entire group

This was only stated as a CSF in company C (C1). Companies A and B cooperate across the group as well, where it was highlighted in company A that they shared

their systems and resources (A1, A2), while company B had competence groups operating across the group (B2). In addition, companies A and B were said to operate across borders which was stated in both companies as a barrier (A1, B3).

Close connection between the tasks and the people responsible for them

This was only stated as a CSF in company A (A1).

4.4.2 Barriers across companies

The most prominent barriers for each company is illustrated in Table 10.

Table 10:

The presence of the nine most prominent barriers in each company

Barriers	Case A	Case B	Case C
Complex issues and solutions	•		
Difficulties with developing new systems and technology	•		
Lack of processes dealing with deleting	•		
Lack of anchoring in (the lower) business areas	•		
Gap between those who understand the law and those who are going to execute the law	•		
Time pressure		•	•
Difficulties with interpreting the regulation	•	•	•
Complex and difficult language in the regulation	•		•
Lack of understanding the regulation and what it means for the business			•

Note: *Dots represents the presence of barriers*

Complex issues and solutions

This barrier was only stated as a barrier in company A (A1). One of the complex issues and solutions that was highlighted was processes dealing with deleting (A2).

Difficulties with developing new systems and technology

This barrier was only stated as a barrier in company A (A1, A2), however they have also developed new systems and technology in companies B and C (B1, B2, C3).

Lack of processes dealing with deleting

This barrier was only stated in company A (A2), and was highlighted as a complex issue in regard to the implementation of the GDPR (A2). However, entirely new routines and processes for deleting was also created in company C, which was said to be a very demanding task due to the structure of the company (C3).

Lack of anchoring in (the lower) business areas

This barrier was only stated in company A (A1).

Gap between those who understand the law and those who are going to execute the law

This was only stated as a barrier in company A (A1). It was also stated in company B that: “I can’t really think of any other projects that are incorporated by law” (B4).

Time pressure

This was stated as a barrier in both companies B and C (B4, C5). Even though they started early, managing time was challenging since there will always be problems along the process (B4). It was also stated in company A that: “[implementing security measures is] something we security people have worked with for 25 years, the privacy people managed to do with just a small regulation simply because of the enormous fines of not being ready in time” (A2).

Difficulties with interpreting the regulation

This was also stated as a barrier in all companies (A2, B2, B4, C3). They all tried to translate the heavy, legal language into something understandable for everyone. The differences in national laws are associated with this barrier, which is stated in companies A and B as making it more difficult to interpret the regulation (A1, B3). It was further stated in companies A and C that the regulation does not have any leeway (A2, C3), whereas it was highlighted in company B that they believe there is room for own interpretation of the regulation (B2, B4).

Complex and difficult language in the regulation

This was stated as a barrier in companies A and C (A1, C3). Further, it was also highlighted in these companies that given the complex nature and wording of the regulation, understanding the content of the regulation was difficult (A1, C3).

Lack of understanding the regulation and what it means for the business

This was only stated as a barrier in company C (C3).

5.0 DISCUSSION

In this chapter, we combine theory gathered prior to the data collection, and the empirical findings from the interviews, documents and survey, to discuss the research questions. We start by examining implementation, before discussing the most prominent CSFs and barriers as presented in the data results. These CSFs and barriers are presented separately, even though they might be intertwined, meaning that they are likely to appear in organizations in different combinations, and are likely to have an impact on each other (Riege, 2005).

5.1 About the implementation of the GDPR

We defined implementation of the GDPR as the implementation of the project in general. In the same way as researchers have different opinions and agree on the fact that there is a lack of consensus regarding definitions of implementation (Fixsen et al., 2005; Roland & Westergård, 2015), the interviewees from the different companies have defined their implementation stages in different ways. This is taken into consideration when identifying how the CSFs and barriers impact the implementation process.

Derived from the data results, Company A considered the start of their implementation to be when the GDPR was first recognized as a project in January 2017. Their two phases (see Figure 1), uncovered a need for developing a gap analysis and uncover new demands required by this project, where we argue that they have engaged in a complex concretization phase (Roland & Westergård, 2015). Given that they had a clear focus on issues that demanded ICT-development, we also argue that they have dealt with a set of activities when implementing the project by creating new software solutions and putting them into practice (Fixsen et al., 2005). Lastly, through their implementation stage, they had a focus on the

process which ensured that the group was GDPR compliant before the deadline (Fullan, 2007). Company B started their implementation in January 2016 when they had their first official steering group meeting. During their discovery phase (see Figure 2) they did a complex concretization of all processes and systems (Roland & Westergård, 2015), before they identified deliveries and actions put into practice in Phase 2 (Fixsen et al., 2005). Company C started by planning the GDPR project (see Figure 3), then did a thorough mapping and concretization of all systems and processes (Roland & Westergård, 2015), before creating and implementing new solutions and updating the existing ones (Fixsen et al., 2005; Fullan, 2007). As opposed to the other companies who considered the pre-study and the discovery phase as a part of the implementation of the GDPR, company C considered the implementation process as the actual stage where they became GDPR compliant. The fact that all companies define their implementation process so differently have had an impact on which CSFs and barriers they considered as most prominent.

During the interview, the interviewee from company C asked us what we meant when asking them about their implementation process. This indicates that they had not made it clear for themselves what the implementation process indicated, and therefore made the implementation of the project more difficult. However, companies A and B had more insight into their implementation process since they were able to define their processes in detail, where company A also provided us with the structure of their implementation process (see Appendix VI).

5.2 Critical success factors

5.2.1 Top management support

Top management support was stated as a CSF (Cleland & King, 1983; Fortune & White, 2004; Jiang et al., 1996; Locke, 1984; Martin, 1976; Pinto & Prescott, 1988; Pinto & Slevin, 1987; Young & Jordan, 2008), as well as being the only CSF stated in all companies in the interviews (see Table 9). Also, 53% of the respondents from the survey chose this as one of their most prominent CSFs (see Figure 4), indicating a high importance relative to the other CSFs. All companies had a tremendous focus on providing a strong commitment from top management, which is a necessity when implementing a project (Sarker & Lee, 2003).

As a result of TMS, the project gained attention in all organizations. However, the particular actions top management has taken was not discovered. Looking into how top management actually has showed their support is of value to ensure a successful implementation, as top managers have influence on whether a project will succeed or fail (Young & Jordan, 2008). Several enablers to top management involvement could minimize the confusion from employees (Jawad et al., 2018), as all companies have barriers related to the employees' understanding or interpretation. If top management helps the employees understand the regulation and their related tasks, the level of uncertainty, confusion and anxiety will be reduced (Yukl, 2013). Being able to sell the vision of the GDPR as an asset rather than a burden, could also reduce the confusion experienced by project staff, as well as having a clear definition of project control systems could reduce the employees' confusion regarding what the GDPR means for their company (Jawad et al., 2018). TMS has also varied between the parent and the subsidiary, where the employees in the parent company did not have the same access to top management, which made it more difficult for the parent company to keep all employees involved, and increases the need for awareness of this CSF in the parent company.

The anchoring in top management also determined which activities and tasks got resources, where the survival of the project depends on the acquisition of resources (Yukl, 2013). Two barriers that were in particular need of resources in the implementation process was the company's *development of new systems and technology*, and *deletion processes*. Given that this research provides evidence for being able to carry out the necessary changes due to TMS, we argue that TMS impacts the project by contributing to overcome the barriers in regard to the allocation of resources, since top management provided the project group with freedom and support to carry out the necessary changes. To willingly provide this support is highly important for implementation success (Pinto & Prescott, 1988).

Findings from this research further indicates that TMS impacted the implementation by being a facilitator for several other CSFs: *sufficient resources put into the project*, *employees with sufficient competence on the subject*, *having a core team that shares their expertise and recommendations*, and *cooperation across the entire group*. We therefore argue that without the impact TMS has had on the implementation of this project, the companies would not have been successful with

their implementation. TMS was stated as the most important of all CSFs (Young & Jordan (2008), and combined with the fact that TMS acts as a facilitator for many of the other CSFs and thereby affects the entire implementation process, indicates that TMS is one of the most important CSFs when implementing the GDPR.

5.2.2 Sufficient resources put into the project

As a consequence of the high level of support from top management, the project got *sufficient resources put into the project*. Resources is identified as a CSF (Fortune & White, 2004; Jiang et al., 1996; Kim et al., 2003; Loon et al., 2017; Martin, 1976), and from the survey, we see that 57% of the respondents chose this as one of their most prominent CSFs (see Figure 4), indicating that this is of the highest importance relative to the other CSFs. Data from the interviews revealed that the GDPR is a prerequisite for their operations, which created an internal competition for resources, displaying that this project is considered important and is why sufficient resources was made available in the companies. Further, the companies did not get any additional resources just because they were implementing the GDPR, and we found that it was difficult to allocate these resources given the complex nature of the regulation and it being so difficult to interpret and understand. The cooperation between the subsidiary and the parent company impacted the allocation of resources, as the implementation would not have been such a seamless operation for the subsidiary if the parent company had not provided them with templates and solutions.

Even though sufficient resources was not stated as a CSF in all companies (see Table 9), it was apparent that they had the resources needed to finish the project in time, which strengthens the positive impact this CSF has of the implementation of the GDPR. Insufficient resources is considered a barrier (Rana, Dwivedi & Williams, 2013), which further indicates that this CSF contributed to the successful implementation of the GDPR. Had it not been for the sufficient resources put into the project, it would not have been a success, which in turn would not have been possible were it not for the high level of TMS (Kim, et al., 2003; Yukl, 2013), and priority of this project. All the evidence combined with the GDPR being a large IS project, which require huge amounts of resources (Boehm et al., 2008; Li et al., 2011; Kim et al., 2003), and the fact that resources was ranked as the fifth most prominent barrier in terms of system implementation (Jiang et al., 1996), makes it

apparent that sufficient resources is one of the most important CSFs when implementing the GDPR.

5.2.3 Employees with sufficient competence on the subject

Competent team members is a key enabler for project success (Baker et al., 1983; Belassi & Turkel, 1996; Fortune & White, 2004; Jawad et al., 2018; Jiang et al., 1996; Loon et al., 2017; Martin, 1976), however, the data results revealed that this was not stated as a CSF in all companies (see Table 9). From the survey, we see that 53% of the respondents chose this as one of their most prominent CSFs (see Figure 4), indicating a high importance relative to the other CSFs. Had it not been for the support of top management, training and awareness regarding the GDPR would not be available to the employees (Kurupparachchi et al., 2002), and the project team would not consist of employees with sufficient competence. Competence is not just linked to one particular element, it also includes the transferring of competence to other elements (Bassellier, Reich & Benbasat, 2001). This has been particularly important in the GDPR implementation, as the employees did not possess competence regarding the project beforehand, and therefore needed to transfer the competence they already had into this project (Bassellier et al., 2001). The companies' experience with personal data provided them with a high level of competence, however, they were still in need of support and guidance. This CSF has therefore impacted the implementation process in a positive way by combining the company's own competence with knowledge they would otherwise not have access to.

Another CSF found in one company was: *relevant knowledge and experience of the people responsible for the project* (see Table 5). This CSF differs from *employees with sufficient competence on the subject* as it is not necessarily the employees in the project groups who have sufficient competence, but the people with more responsibility for the project, such as project managers, DPOs, and CISOs. However, the sufficient competence of the people responsible have resulted in increased awareness of the new regulation, as well as made the employees accustomed to dealing with strict laws and regulations on a daily basis. Even though knowledge is found with different people, the result is the same: employees gained knowledge on the GDPR, which highlights why this is one of the most important CSFs. Without employees with sufficient competence, the project would have taken

a lot more time and resources to complete. Therefore, the competent employees impacted the implementation process by facilitating the creation of adequate solutions and systems, and enabled them to understand the regulation and what it means for the business. Data from the cases also revealed differences between the parent company and its subsidiary. The parent company centralized their competence and understanding of the GDPR, and then shared this with their subsidiaries, who consequently missed the starting phase of the implementation, which created problems for their understanding of the rest of the implementation. This indicates that the impact this CSF had on the implementation process differs in the parent company and the subsidiary.

5.2.4 Having a core team that shares their expertise and recommendations

This has only been stated as a CSF in one company (see Table 9). From the survey, we see that 47% of the respondents chose this as one of their most prominent CSFs (see Figure 4), indicating that this is of equal importance to several other CSFs. The research revealed that the individuals with sufficient competence could educate the rest of the team and increase the chances for project success, as it is the organization's responsibility to make sure that the members of the project team have the necessary skills to ensure project success (Jawad et al., 2018).

Even though having a core team that shares their expertise and recommendations was only stated as a CSF in one company, we found evidence in all companies indicating that this is one of the most important CSFs. Having a core team that shares their expertise and recommendations was a big enabler for project success, as it impacted the companies in different ways by: 1) getting a lot of expertise and recommendations from different groups in the different business areas throughout the project, 2) having the people with legal competence share this with the rest of the project team, 3) and the competence being locally obtained by placing the in-house legal competence in the core groups. We therefore argue that this is one of the most important CSFs when implementing the GDPR.

5.2.5 Starting early

From the survey, we see that 47% respondents chose this as one of their most prominent CSFs (see Figure 4), indicating that this is of equal importance to several other CSFs. Starting early is considered the most important factor for project success (Kumar, 1989), and not even the efforts of the resources in the project will

be able to save a project that fails as a consequence of poor decision making in the early stages (Munns & Bjeirmi, 1996). However, this CSF was only stated in one company (see Table 9), where it was stated that they were the earliest in the industry, when in fact they started the project later than their competitors, who also stated that they were the first in the industry. It was not possible to be a laggard in this project, which refers to when companies take their time adopting (Dearing & Cox, 2018), due to the strict and unalterable time limit. If companies waited too long to start implementing, they would not be ready in time and this CSF would then be considered a barrier, indicating that it impacts the implementation differently depending on whether it is considered a CSF or a barrier. How it could be viewed as a barrier was exemplified in one company: “even though we’re further along, we should not get on our high horse, it does not mean that we’re compliant” (B2), since being too confident and assume you know the answer is a hinder for project success (Kuruppuarachchi et al., 2002). Since starting early had more impact in the early stages of the GDPR implementation as the company got a good start on the project, as well as improved their chances of being compliant in time, is why starting early is considered one of the most important CSFs when implementing the GDPR.

5.2.6 Information and awareness regarding the GDPR and the project

This was stated as a CSF in two companies (see Table 9). We see that 47% of the respondents from the survey chose this as one of their most prominent CSFs (see Figure 4), indicating that this is of equal importance to several other CSFs. When working on collaborative projects such as the GDPR project, awareness is inherent (Damian, Chisan, Allen & Corrie, 2003). It is evident from the interviews that information and awareness regarding the project was important, and that understanding the project, and thereby the GDPR, was essential for managing this CSF: “you have to understand the GDPR and then you have to understand what does this mean in practice for me, for them” (B2). If companies do not understand the regulation, how will they share information and create awareness? To provide all employees with an understanding of the company’s capabilities, advantages, and limitations regarding the regulation is connected to creating awareness, which refers to the knowledge one has of what is going on in the company (Bassellier et al., 2001; Damian et al., 2003).

Furthermore, this CSF was found to potentially lead to a lack of understanding, since without information and awareness, it would be impossible for employees to *understand the regulation and what it means for business*, which was stated as a barrier. Since the employees were provided with sufficient information and awareness, it is evident that this CSF impacted the implementation process by making sure that everyone worked toward the same goals. Given the fact that it has the potential of becoming a barrier if not taken into consideration, and that it would be impossible for employees to understand the regulation if not provided with information and awareness, we argue that this CSF is one of the most important CSFs when implementing the GDPR.

5.2.7 Training of employees

We found that 37% of the respondents from the survey chose this as one of their most prominent CSFs in the GDPR implementation (see Figure 4), indicating that this is of less importance relative to the other CSFs. Training of employees is considered a CSF (Cleland & King, 1983; Fortune & White, 2004; Kuruppuarachchi et al., 2002; Loon et al., 2017; Pinto & Prescott, 1988), although it was only stated as a CSF in one company during the interviews (see Table 9). Training is related to resources (Fortune & White, 2004), and as the findings indicate, the companies spent a lot of resources on training their employees. The complicated process of understanding the regulation resulted in insufficient training of employees, which in turn leads to unsuccessful projects (Baker et al., 2015; Kohl, 2016).

The findings indicate that there has been a focus on activities related to training of employees, which is very visible in one company (see Table 9). However, the interviewees in the different companies had different perceptions of training of employees, and even though the presence of training activities were highlighted in all companies, it was said to be a CSF in one company, a barrier in another, while the third company did not state it as a CSF nor a barrier. This indicates the ambiguity of this CSF. As training of employees is considered a subcomponent of sufficient resources, which again is a subcomponent of TMS, training as a CSF is less important when implementing the GDPR. It is therefore evident that sufficient training of employees had a low impact on the implementation process as it was

found to be a subcomponent of TMS, only stated as a CSF in one company, had a low response rate in the survey, and is therefore not considered one of the most important CSFs when implementing the GDPR.

5.2.8 Cooperation across the entire group

This was only stated as a CSF in one company (see Table 9), and 37% of the respondents from the survey chose this as one of their most prominent CSFs (see Figure 4), indicating that this is of less importance relative to the other CSFs. A cross-functional coordination is essential for the success of a project (Baker et al., 2015; Kohl, 2016). However, collaborating and creating a synergy across different departments is difficult (Garcia-Sanchez & Pérez-Bernal, 2007), it was stated that: “it is a success that we managed to engage and make the entire organization responsible and conscious of the changes” (C1). Even though cooperation across the group was not stated as a CSF in two companies (see Table 9), they still have some shared tasks and activities across the groups. In one of the parent companies, they shared systems and resources with their subsidiary, where competence groups that operated across the entire group, was present in another company. Furthermore, based on all companies’ cooperation across the entire group, we see that this CSF has impacted the implementation process by making it easier for the subsidiaries, as they could reap the benefits from the parent company, which saved them a lot of time and resources.

The interviewees in two companies did not state cooperation across the entire group as a CSF. However, they state operating across borders as a barrier (see Tables 6 and 7). Since operating across borders creates problems with analyzing national culture, and that companies operate across different European countries with different national laws, cooperation across the entire group is difficult (Garcia-Sanchez & Pérez-Bernal, 2007). We believe that since the company not operating in other countries view this CSF as a national collaboration, while the two other companies who operate in the Nordics and the Baltics, consider it more difficult to work seamlessly across the entire group, it is not one of the most important CSF when implementing the GDPR. However, this CSF is more of a barrier to the implementation of this project, since operating across borders is difficult due to the struggle with combining the local laws with the GDPR. Its low level of importance

relative to the other CSFs is also highlighted as less prominent by the respondents of the survey (see Figure 4).

5.2.9 Close connection between the tasks and the people responsible for them

This was only stated as a CSF in one company (see Table 9), and 37% of the respondents from the survey chose this as one of their most prominent CSFs (see Figure 4), indicating that this is of less importance relative to the other CSFs. The findings from this research show that having a close connection between the tasks and the people responsible for them has impacted the implementation process by keeping the competence close to the tasks and thereby making sure that they are solved in the most effective way. However, the close connection between the tasks and the people responsible for them was, based on evidence from the interviews, found to be more useful for overcoming the barrier *gap between those who understand the law and those who are going to execute the law*. Given the need to match the right employees to the right task, further explains that the need for overcoming the barrier is more important than the presence of this as a CSF.

5.3 Barriers

5.3.1 Complex issues and solutions

This barrier was only stated in one company (see Table 10), and 53% of the respondents from the survey chose this as one of their most prominent barriers (see Figure 5), indicating a high importance relative to the other barriers. This barrier is closely linked to the barriers: *difficulties with developing new systems and technology* and *lack of processes dealing with deleting*, and is therefore relevant to consider in connection with these. The fact that one company started their implementation process by getting an understanding of ICT-tasks, which required a massive development of new systems and technology, together with the statement: “it is the complexity of our systems that makes this difficult” (A1), supports our notion of the link between the barriers regarding systems and technology. Also, one of the complex issues and solutions discovered from the data results was the processes with deleting. Combined with the fact that complexity is stated as a hinder to technology adoption (Kaur & Rashid, 2008), we argue that this is one of the most important barriers when implementing the GDPR.

The regulatory restrictions of this project made this project complex, which is why

we argue that the project would not have gotten the same amount of attention had these issues not been as complex. Furthermore, we argue that this barrier is one of the main drivers for this project as it contributed to increased awareness in the implementation process. The complex issues and solutions impacted the implementation process negatively by being a main component in several other barriers that demanded time and resources, as well as having a positive impact by providing the project with more attention.

5.3.2 Difficulties with developing new systems and technology

This was only stated as a barrier in one company (see Table 10). We found that 43% of the respondents from the survey chose this as one of their most prominent barriers (see Figure 5), indicating that this is of equal importance to several other barriers. A lack of the right tools or technology was stated as a barrier that could prevent GDPR readiness (Faifr & Januska, 2018), which is supported by the statement: “[developing new systems and technology] is a burden on the organization, it takes time” (A2), as well as by the fact that the development of IS is especially prone to fail (Schwalbe, 2015). The many generations of systems containing and processing personal information already in place needed to be updated to comply with the GDPR regulation, and therefore required a lot of time and resources in terms of system maintenance. If the barriers regarding IT project implementation are paid proper attention, the chances of successfully overcoming this barrier, and thereby successfully implement the GDPR, will increase (Kurupparachchi et al., 2002).

Two companies also developed new systems that had an impact on their implementation process. The fact that top management in one of these companies gave their full focus to the project based on it being recognized as more than just an IT project, refers to the fact that they are used to changing their systems and processes, since different projects require different systems and solutions. However, they understood that the GDPR was more complex and therefore needed a lot of support from top management. In addition, the banking section in two of the companies carried out similar processes as those in the implementation of the GDPR in terms of regulations and directives, which means that they did not experience the GDPR project to be as complex as other companies operating outside the banking industry did. Difficulties with developing new systems and

technology is therefore an important barrier for implementation processes, but not one of the most important barriers for the companies in this industry, given the experience all companies had regarding implementation of new systems beforehand. Since the companies operate within an industry that is accustomed to constantly developing new systems and technology, we found this barrier to be less of an obstacle when implementing the GDPR in banking and insurance companies.

A lack of this prior knowledge of the regulation, as well as a lack of systems available, enables the barrier of developing new systems and technology, to potentially become a larger barrier than the findings from this research indicates. Therefore, this barrier does not necessarily impact this implementation process in a negative way, however as the GDPR is difficult to implement, this barrier has the possibility of becoming larger in other industries if there is a lack of prior knowledge regarding development of systems, or a lack of systems available before implementing.

5.3.3 Lack of processes dealing with deleting

Findings from the survey showed that 43% of the respondents chose this as one of the most prominent barriers (see Figure 5), indicating that this is of equal importance to several other barriers. A lack of necessary IT development and IT operations needed for continuously updating of the deletion-procedures, that requires a set of right tools and technology, is stated as a barrier for the GDPR implementation and readiness (Berning & Meyer, 2017; Faifr & Januska, 2018). Data from the interviews revealed that developing processes for deletion is closely related to developing new systems and technology, since the deletion process is a part of why the companies need new systems. Processes dealing with deleting is difficult to manage, since a customer's personal data may be stored a number of ways in several different places (Wells, 2018).

This barrier was only stated in one company (see Table 10), where it was found to be the most difficult single factor, where they created a solution which made their customers self-served. In another company, the interviewees did not state this as a barrier because they had experience with developing new systems and technology, and therefore managed to create entirely new routines and processes for deleting without it being an obstacle for their successful implementation. By overcoming

the previous barrier of creating new systems and technology, the companies were able to overcome this barrier, meaning that it impacted the implementation process positively by being a necessity for an important new aspect of the regulation (Politou et al., 2018). Lack of processes with deleting was found to be less important when implementing the GDPR, due to the fact that it is a barrier due to *difficulties with developing new systems and technology*, since there is a need for developing new systems to cope with the deletion processes. However, given the companies' experience with developing new systems and technology, lack of processes dealing with deleting is not considered one of the most important barriers when implementing the GDPR.

5.3.4 Lack of anchoring in the lower business areas

Findings from the survey show that 40% of the respondents chose this as one of their most prominent barriers (see Figure 5), indicating that this is of less importance relative to the other barriers. Findings from this research indicate discrepancies between the perceptions of the people in charge of implementing the project, and the employees in the project groups. Given the lack of information from top management in the early stages of the project, one company stated that the employees in the lower business areas could only rely on information provided by the media, who focused on large sanctions and fines, which led to stressful and uncertain situations and thereby affected the implementation process negatively (Jawad et al., 2018). The fact that employees who were actually working with the project were confused, stressed and worried therefore increased the negative impact this barrier had on the implementation of this project. Given that this was only present in the early stages of the implementation process, the high involvement of TMS indicates that there is a high level of awareness throughout the organization, which as the findings suggests, should not lead to a lack of understanding in the lower business areas. Also, lack of anchoring in the lower business areas was only stated as a barrier in one company (see Table 10), at the same time as they specifically stated TMS as a CSF (see Table 9). We therefore argue that since TMS is present as a CSF in the only company stating this as a barrier, combined with the low importance from the respondents of the survey, it is not found to be one of the most important barriers when implementing the GDPR. Consequently, the barrier did not impact the implementation process in a negative way due to the involvement of top management.

5.3.5 Gap between those who understand the law and those who are going to execute the law

We found that 60% of the respondents from the survey chose this as one of their most prominent barriers (see Figure 5), indicating that this is of the highest importance relative to the other barriers. Even though this was found to be the most prominent barrier in the survey, its impact on the implementation process has not been highlighted by any of the interviewees. However, based on the overall findings it is evident that this barrier impacted the implementation process negatively by making it difficult to solve problems since the employees feel as if they lack the necessary competence. Also, another impact for the company is that they might not have employees who possess the competence that the tasks demand.

Having a gap between those who understand the law and those who are going to execute the law is only stated as a barrier in one company (see Table 10). It was discovered through the interviews that those who understand the law might not be present in the business area responsible for the execution of the law. Given that the regulation is more complex than the employees in the project groups are used to, interpretation and understanding of the regulation was difficult. Even though another company stated that they had sufficient competence within this area, they still found it difficult to place employees at the right task when it was difficult to identify exactly what type of knowledge and abilities they should possess in order to handle the tasks. It was also stated that: “I can’t really think of any other projects that are incorporated by law” (B4), meaning that a project like this has never been executed before, indicating that there is no one in the companies with experience regarding this specific type of project. This leads to the need for transferring their existing competence to the new tasks demanded by the GDPR (Bassellier et al., 2001). We argue that this makes it impossible for the companies to be prepared for exactly how their employees are going to solve the tasks, which further enhances that this is one of the most important barriers to consider when implementing the GDPR.

5.3.6 Time pressure

This was stated as a barrier in two companies, although both still managed to be ready in time (see Table 10). We found that 57% of the respondents from the survey

chose this as one of their most prominent barriers (see Figure 5) indicating the second highest importance relative to the other barriers. However, how the companies have coped with it or how it has displayed itself as a particular barrier in the implementation process, is not well explained. Even though both companies started their projects early, problems will always appear along the process, making it difficult to manage time. Lack of time was also identified as one of seven barriers for GDPR readiness (Faifr & Januska, 2018). The size and scope of the project, the fact that this is a brand new regulation, and that there is no current industry standard, are all features we found evident for time pressure being one of the most important barriers when implementing the GDPR.

In spite of that, having a limited amount of time to implement this project impacted the implementation process by driving the project forward at an enormous speed, and made the employees more motivated and encouraged to finish the project in time for the deadline. This is supported by the statement: “[implementing security measures is] something we security people have worked with for 25 years, the privacy people managed to do with just a small regulation simply because of the enormous fines of not being ready in time” (A2), highlighting the fact that time pressure had a positive impact on the implementation of the GDPR.

5.3.7 Difficulties with interpreting the regulation

This was the only barrier stated in all companies (see Table 10), and 53% of the respondents from the survey chose this as one of their most prominent barriers (see Figure 5), indicating a high importance relative to the other barriers. The ambiguity of the legislation is considered a major barrier for GDPR readiness (Faifr & Januska, 2018), which we found to be prominent in all three cases based on the interviews and the survey, meaning that this barrier has been of great importance when implementing the GDPR. Ambiguous information requires subjective interpretation, which causes difficulties with determining the accuracy of the project scope (Hickey and Davis, 2004; Li et al., 2011), where a poorly defined project scope is also a barrier to project success (Larson & Gray, 2018).

The barrier, *complex and difficult language*, was stated as a reason for why interpreting the regulation was a barrier. One of the main findings supporting this was that the regulation was first published in English, which made it difficult to

interpret, before it was translated into Norwegian. The need to deal with laws and restrictions from the EU made it even more difficult to interpret the regulation, given that the companies are used to dealing with projects only subject to Norwegian laws. Findings from this research revealed a gap between lawyers who understand the law without any leeway, and how the project group interpret it as they believe is best, which further highlights the difficulties with interpreting the regulation. Based on the discussion, the negative impact this barrier had on the implementation of the GDPR and its importance, is illustrated by the companies' disagreement on the level of leeway regarding the interpretation, and the different interpretations of each employee, which opens up for over-interpreting the regulation, and was stated as "deadly, and something that could kill the entire organization" (A2). The lack of leeway for own interpretation of the regulation, the gap stated above, as well as the ambiguity of the regulation, explains why this is one of the most important barriers when implementing the GDPR.

5.3.8 Complex and difficult language in the regulation

We found that 40% of the respondents from the survey chose this as one of their most prominent barriers (see Figure 5), indicating that this is of less importance relative to the other barriers. This was stated as a barrier in two companies (see Table 10), where it was stated that: "if there were 4.000 lawyers working in this company, everything would have been a whole lot easier" (A1), meaning that employees who did not understand the law, did not understand the project. Another consequence of this was the chance of changing the terminology into something that did not explain the reality, since it is difficult to convert the legal language without any prior knowledge or experience with it. An additional complicating factor was the issue with the regulation being written in English before it was translated into Norwegian. This barrier is found to be of less importance on its own, and is thereby not one of the most important barriers when implementing the GDPR. However, since complex and difficult language was found to be an issue since it made understanding and interpreting the regulation more complicated, we state that it is of more importance as a consequence of the barriers: *difficulties with interpreting the regulation, and lack of understanding the regulation and what it means for the business.*

5.3.9 Lack of understanding the regulation and what it means for the business

We found that 50% of the respondents from the survey chose this as one of their most prominent barriers (see Figure 5), indicating a high importance relative to the other barriers. However, this was only stated as a barrier in one company (see Table 10). The GDPR project is a change process where the working environment and the understanding of the organization changes (Andersen et al., 2009), and it is therefore important to have a clear understanding of what the new regulation means for the business. The interviewee in one company stated that “the biggest barrier was the legislation itself” (B4), which highlights that the legislation has been difficult to understand. Since they also believe there was a possibility of interpreting the regulation in different ways, the understanding of the project became more difficult and increased the level of ambiguity, which was identified as a barrier for GDPR readiness (Fairr & Januska, 2018). Without a clear understanding of the regulation, it is very difficult to define the scope and mission of the project, which is the most frequently mentioned barrier to project success (Larson & Gray, 2018).

Since the parent company was responsible for the process mapping done in the early stages of the project, the subsidiary might not have gotten the same understanding of the regulation since they ‘missed out’ on the process mapping-phase [understanding phase] of the project. Which also indicates that this barrier impacted the parent company and the subsidiary differently. In addition, this barrier also impacted the implementation process differently, as companies could not implement this project as it suited the business since the regulation was enforced by the EU. Data from the interviews revealed that information from the EU was experienced as insufficient in the companies, where we argue that one company has been ignorant, meaning that they lacked knowledge on what to do in the GDPR project (Kurupparachchi et al., 2002). Understanding this information from the EU is very challenging since the GDPR is a part of the development of IS in each company (Hoorn, Konijn, van Vliet & van der Veer, 2007; Lee & Xia, 2005; Li et al., 2011). The national laws and regulations of the country each company operated in needed to be considered, resulting in an increased difficulty with understanding the regulation. We argue that this barrier has had a negative impact on the implementation and that understanding the regulation is one of the most important barriers when implementing the GDPR, since it is difficult to define the scope and

mission of the project without a clear understanding of it, which leaves room for misinterpretations.

6.0 IMPLICATIONS, LIMITATIONS AND CONCLUSION

In this section, we present practical and theoretical implications provided by the findings of this study. Thereafter, we review the relevant limitations and recommendations for future research, before presenting the conclusion of the thesis where we provide answers to the research questions.

6.1 Implications

Our main aim of this study was to identify the most important CSFs and barriers when implementing the GDPR in banking and insurance companies, and how these impacted the implementation of the GDPR. The findings from this research have practical and theoretical implications for project implementation.

In terms of practical implications, we want to highlight three main areas. First, the barriers were found to be more important to focus on compared to the CSFs, indicating that leaders need to be self-aware of their weaknesses and account for the barriers for the project early on. Second, the CSFs and barriers do not work solely alone, they are found to be intertwined due to the complex nature of the project, meaning that in order to ensure a successful implementation of the GDPR, leaders should be aware of the fact that several CSFs and barriers have an ambiguous impact, and depend on each other. Lastly, which CSFs and barriers the companies consider as important for the implementation of the project, as well as when they are important, depend on what the companies consider as their implementation process. For example, if a company does not consider the pre-phase as part of their implementation process, they might not consider the CSF of starting early to be as important as companies that consider the pre-phase as part their implementation process. The different CSFs and barriers connected to the different stages of the implementation process is something leaders should take into consideration. We also believe that this research is especially timely as the GDPR was implemented a year ago, which further provides useful insights for leaders.

In terms of theoretical implications, this study suggests the possibility of extending knowledge on existing CSFs and barriers in literature. Two of the CSFs and four of

the barriers found to be most important when implementing the GDPR expands previous research. These CSFs are: *having a core team that shares their expertise and recommendations*, and *information and awareness regarding the GDPR and the project*. These barriers are: *complex issues and solutions*, *gap between those who understand the law and those who are going to execute the law*, *difficulties with interpreting the regulation*, and *lack of understanding the regulation and what it means for the business*. The seven CSFs and five barriers also identified through this research, are similar to those identified in previous studies, however, they have not been identified in the specific context of the GDPR implementation. We therefore argue that all CSF and barriers identified as most important in this research, are of value for the field, since they contribute to a better understanding of what enables and hinders the successful implementation of this specific project.

6.2 Future research and limitations

The selection process of the most prominent CSFs and barriers done through the survey is considered a limitation of this study, since the respondents were asked to only select eight of the 25 and 24 CSF and barriers, respectively. Future research should look into the not selected CSFs and barriers where these might be of importance, and consider whether they differentiate between the GDPR project and other projects. Moreover, the CSFs and barriers were not ranked by the respondents, which further limits the possibility of identifying the most important CSFs and barriers with certainty. Future research should look into ranking these CSFs and barriers, as well as look into parent company and its subsidiary, and banking and insurance separately to gain a more thorough understanding of each aspect.

Further, how the respondents to the survey were selected is considered a limitation since our primary contact persons distributed the survey to the project groups, where these varied in size, entailing that the results could be biased if the majority of the respondents were from the same company. The employees in the project groups could have answered the survey differently, since all people have different opinions regarding what matters the most. Future research should consider a larger sample to minimize the differences of opinion, as each response in the study had a large impact on the results which could have been reduced by a larger sample. The employees who responded to the survey might have worked with the project at different stages in the implementation process, which is a limitation that could have

affected the end result. Future research should consider using a different stratified sampling approach than done in this study to address this issue, so it is possible to ensure a more representative sample. Furthermore, the definition of what concerns their implementation process has been viewed differently in the companies, leading to inclusion of different CSFs and barriers at different stages in the process, which makes it difficult to identify how these have impacted the implementation of the GDPR. Future research should specify which area of the implementation process it seeks to investigate, as a way to avoid the discrepancies of the companies' implementation process definitions.

Finally, since we used a multiple case study design, we were in a better position to generalize our findings. However, since we used a purposive sampling approach, where the researcher cannot generalize to a population (Bryman & Bell, 2015), we were unable to produce any general findings. Therefore, future research should use a different approach when investigating this phenomenon in order to try to provide generalizable findings. Since banking and insurance is such a thoroughly regulated field, they are used to strict laws and regulations, and are therefore better equipped to handle projects such as the GDPR. Future research should therefore look into other companies that operates within a different context. If we were to do this study again, the results would most likely be different, leading to the low external validity of this thesis becoming a limitation. The inter-rater reliability is also a limitation for this study, given the presence of more than one researcher who observed and translated the data.

6.3 Conclusion

The purpose of this study was to identify the most important CSFs and barriers when implementing the GDPR, as well as identifying their impact. The data results from this research show that nine CSFs and nine barriers were identified as the most prominent (see Figure 4 and 5). However, the overall findings suggested that six CSFs and five barriers were of most importance when implementing the GDPR.

Top management support, sufficient resources put into the project, employees with sufficient competence on the subject, having a core team that shares their expertise and recommendations, starting early, and information and awareness regarding the GDPR and the project, are found to be the CSFs which have been most

important during the implementation process. The most important barriers to project implementation of the GDPR was found to be: *complex issues and solutions, gap between those who understand the law and those who are going to execute the law, time pressure, difficulties with interpreting the regulation, and lack of understanding the regulation and what it means for the business.*

In regard to how the most important CSFs and barriers have impacted the implementation of the GDPR, the most prominent CSFs and barriers were not stated in all companies (see Tables 9 and 10), while they were still of significance when implementing the GDPR. We conclude that overcoming the barriers is more important than dealing with the CSFs, since the absence of CSFs will not ensure failure in the same way the presence of barriers will.

Based on the overall findings, we conclude that the CSFs and barriers either had a: positive impact; negative impact; or the possibility of changing its impact. The positive impact the most important CSFs and barriers had on the implementation of the GDPR was: 1) their different impact on the parent company and its subsidiaries, 2) increased involvement, awareness and understanding of the project during the implementation, 3) a driver for completing the project, and 4) responsible for ensuring compliance in time. The negative impact the most important barriers had on the implementation process was that: 1) the interpretation of the regulation made it difficult to proceed with the process, 2) the ambiguity of the legislation and the different perceptions of the group members, made it difficult to understand, 3) the employees felt like they lacked the necessary competence, and 4) the company lacked employees with the desired competence. Finally, *starting early, complex issues and solutions, and time pressure* were found to have a possibility of changing their impact.

APPENDIX I.

INTERVIEW GUIDE NORWEGIAN

1. Hadde dere en tilstrekkelig plan i forkant av implementeringsprosessen?

Spørsmål ang. Implementeringen av GDPR

2. Når startet dere implementeringen av GDPR (implementeringsprosessen)?
3. Hvilke stadier bestod implementeringsprosessen av?
4. Hvordan var prosjektet organisert?
5. Hvor mange personer har vært involvert i prosjektgruppen?
6. Hvorfor ble akkurat du valgt ut til dette prosjektet?
7. Hvor mye kjennskap hadde du til prosjektet på forhånd (før implementeringsprosessen)?
8. Når anså dere prosjektet som ferdig?
9. Hva er den nåværende statusen til prosjektet

Spørsmål ang. kritiske suksessfaktorer

10. Hvilke tre suksessfaktorer anser du som viktigst i denne implementeringsprosessen?
11. Tror du at viktigheten av disse faktorene varierer i de ulike stadiene av implementeringen? Hvis ja, hvordan?

Forskjellen mellom GDPR-prosjektet og andre prosjekter innad i organisasjonen

12. Vil du si det er en forskjell på å jobbe mot en suksessfull implementering når prosjektet er påkrevd ved lov (GDPR) sammenlignet med andre prosjekter innad i organisasjonen?
13. Har implementeringen av GDPR blitt håndtert på lik linje som andre prosjekter innad i bedriften?

Barrierer for suksessfull implementering

14. Møtte dere på noen barrierer i dette prosjektet? Hvis ja, kan du utdype?
15. Har du noen ytterligere informasjon ang. implementeringsprosessen du gjerne vil dele?

APPENDIX II.

INTERVIEW GUIDE ENGLISH

1. Did you have a sufficient plan in place prior to (starting) the implementation process?

Questions regarding the implementation of GDPR

2. When did you start implementing GDPR (the implementation process)?
3. What stages did your implementation process consist of?
4. How was the project organized?
5. How many people have been involved in the project group?
6. Why were you selected as a part of this project?
7. How much did you know about the project in advance (before the implementation-process).
8. When did you consider the project to be completed?
9. What is the current status of the project?

Questions on critical success factors

10. Which three factors do you consider to be most important in this implementation process?
11. Do you believe that the importance of these factors varies across the different implementation stages? If so, how?

The difference between the GDPR project and other projects within the organization

12. Do you think there is a difference between working towards project success when it is incorporated by law, such as GDPR-compliance, compared to other projects within the organization?
13. Do you think there is a difference in the execution of the GDPR-implementation project compared to other projects within the organization?

Barriers to successful implementation

14. Did you encounter any barriers in this project? If so, can you elaborate?
15. Any additional information regarding the implementation process you would like to share?

APPENDIX III.

SURVEY QUESTIONS

This is a survey developed for our master thesis related to the implementation of GDPR.

The purpose of this survey is to uncover the 8 most prominent critical success factors (CSFs) and barriers from the 25 proposed CSFs and barriers mentioned in this survey. This survey will serve as a basis for our analysis of which factors and barriers has an impact on the successful implementation of GDPR.

The survey is completely anonymous and in accordance to the GDPR guidelines. The answers will only be used for this research and will be deleted when the analysis is complete.

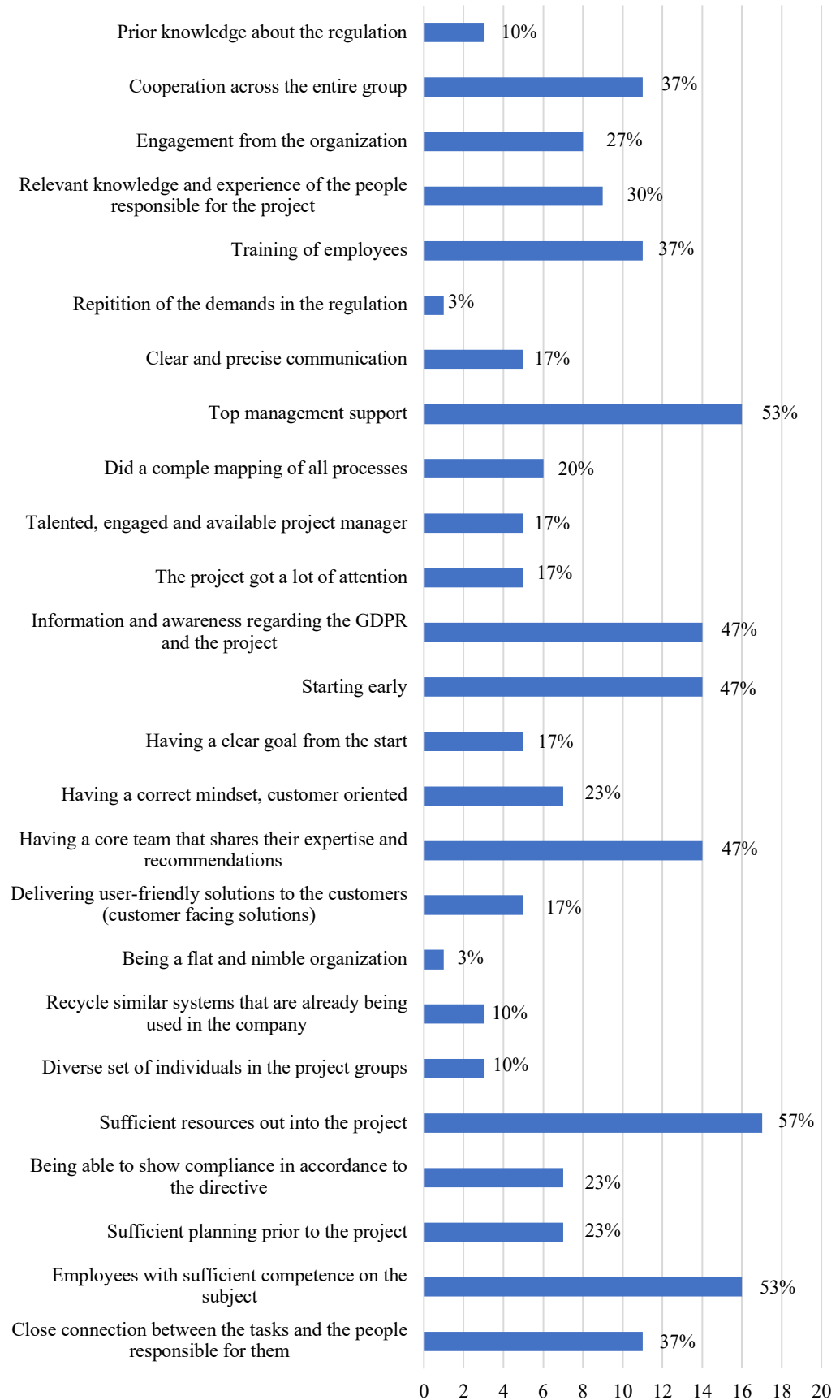
Choose **8** out of these 25 **critical success factors (CSFs)** that you believe were the most prominent when implementing the GDPR project.

- Close connection between the tasks and the people responsible for them
- Employees with sufficient competence on the subject
- Sufficient planning prior to the project
- Being able to show compliance in accordance to the directive
- Sufficient resources put into the project
- Diverse set of individuals in the project groups
- Recycle similar systems that are already being used in the company
- Being a flat and nimble organization
- Delivering user-friendly solutions to the customers (customer facing solutions)
- Having a core team that shares their expertise and recommendations
- Having a correct mindset, customer-oriented
- Having a clear goal from the start
- Starting early
- Information and awareness regarding GDPR and the project
- The project got a lot of attention
- Talented, engaged and available project manager
- Did a complete mapping of all processes
- Top management support
- Clear and precise communication
- Repetition of the demands in the regulation
- Training of employees
- Relevant knowledge and experience of the people responsible for the project
- Engagement from the organization
- Cooperation across the entire group
- Prior knowledge about the regulation

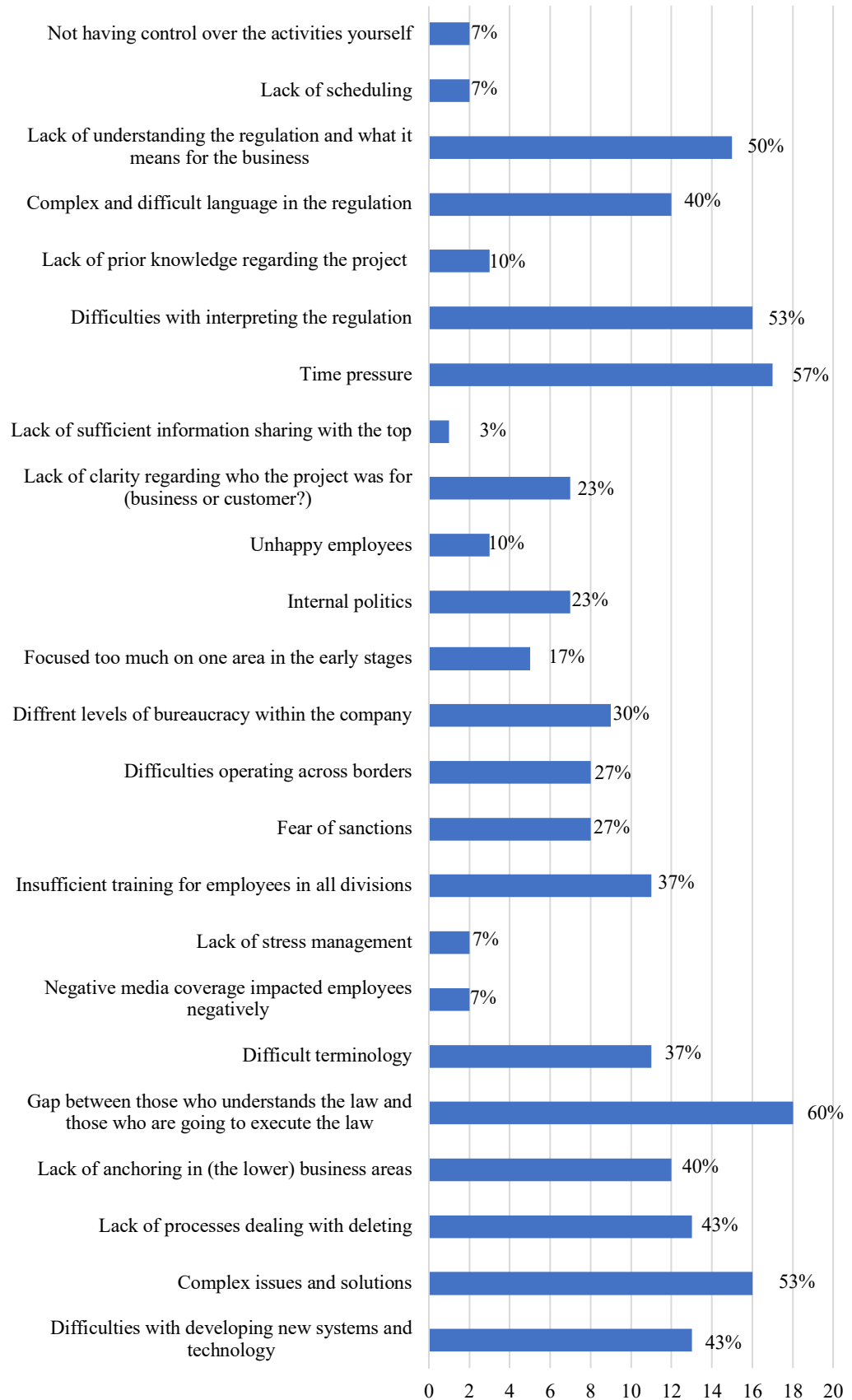
Choose **8** out of these 24 **barriers** that you believe were the most prominent when implementing the GDPR project.

- Difficulties with developing new systems and technology
- Complex issues and solutions
- Lack of processes dealing with deleting
- Lack of anchoring in (the lower) business areas
- Gap between those who understand the law and those who are going to execute the law
- Difficult terminology
- Negative media coverage impacted employees negatively
- Lack of stress management
- Insufficient training for employees in all divisions
- Fear of sanctions
- Difficulties operating across borders
- Different levels of bureaucracy within the company
- Focused too much on one area in the early stages
- Internal politics
- Unhappy employees
- Lack of clarity regarding who the project was for (business or customer?)
- Lack of sufficient information sharing with the top
- Time pressure
- Difficulties with interpreting the regulation
- Lack of knowledge prior to project start in advance
- Complex and difficult language in the regulation
- Lack of understanding the regulation and what it means for the business
- Lack of scheduling
- Not having control over the activities yourself

APPENDIX IV.
AN OVERVIEW OF THE CSFS WITH THEIR RESPECTIVE NUMBER OF RESPONSES PROVIDED BY THE SURVEY

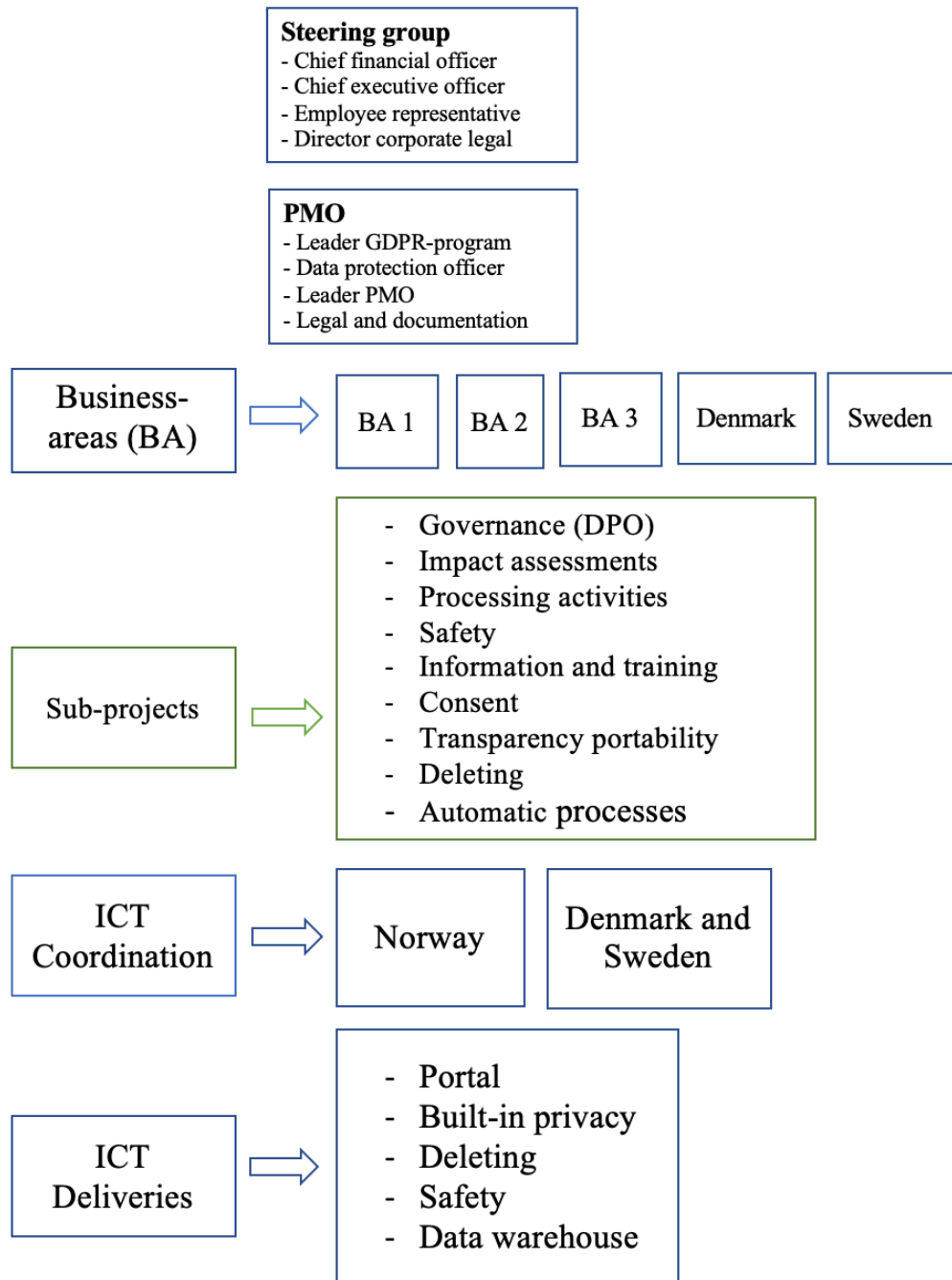


APPENDIX V.
AN OVERVIEW OF THE BARRIERS WITH THEIR RESPECTIVE NUMBER OF RESPONSES PROVIDED BY THE SURVEY



APPENDIX VI.

Figure 6: *A simplified model of the structure in the implementation phase in company A*



REFERENCES

- Andersen, E. S., Grude, K. V., & Haug, T. (2009). *Goal directed project management: effective techniques and strategies*. Kogan Page Publishers.
- Andersen, E. S., Grude, K. V., & Haug, T. (2016). *Målrettet prosjektstyring*. Oslo: NKI Forlaget AS.
- Baker, T., Echeverria, P., & Kohl, K. (2015). The voice of project managers on sustainability projects and requirements. Retrieved from <http://www.projectmanagement.com/white-papers/303957/The-Voice-of-Project-Managers-on-Sustainability-Projects-and-Requirements>
- Baker, B. N., Murphy, D. C., & Fisher, D. (1997). Factors Affecting Project Success. In Cleland, D.I. & King, W.R (Ed.). *Systems analysis and Project management*. (Chapter 35) doi: <https://doi.org/10.1002/9780470172353.ch35>
- Bassellier, G., Reich, B. H., & Benbasat, I. (2001). Information technology competence of business managers: A definition and research model. *Journal of management information systems*, 17(4), 159-182.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544-559.
- Belassi, W., & Tukel, O. I. (1996). A new framework for determining critical success/failure factors in projects. *International Journal of Project Management*, 14(3), 141-151.
- Bell, E., Bryman, A., & Harley, B. (2018). *Business research methods*. Oxford university press.
- Berning, W. & Meyer, K. (2017). Erasure of Personal Data in Business Information Systems in Accordance to the General Data Protection Regulation – A Methodology and Practical Recommendations. *HMD Praxis der Wirtschaftsinformatik*. 54(4), 618-631.
- Bidanda, B., & Cleland, D. I. (2015). *Evolution and Maturity of PM*. Project Management Institute.
- Boehm, B., Chulani, S., Verner, J., & Wong, B. (2008). Sixth workshop on software quality. In *Companion of the 30th international conference on Software engineering* (pp. 1035-1036). ACM.
- Boynton, A. C., & Zmud, R. W. (1984). An assessment of critical success factors. *Sloan management review*, 25(4), 17-27.

- Bogdan, R. C. & Biklen, S. K. (2006). *Qualitative research in education: An introduction to theory and methods*. Allyn & Bacon.
- Bryman, A., & Bell, E. (2015). *Business Research Methods* (4. ed.). Oxford: Oxford University Press.
- Charmaz, K. (2014). *Constructing grounded theory*. Sage.
- Cleland, D. I. & King, W. R. (1983). *Systems Analysis and Project Management* (3. ed.). New York: McGraw-Hill.
- Cooke-Davies, T. (2002). The “real” success factors on projects. *International journal of project management*, 20(3), 185-190.
- Costa, N. A., da Silva, J. V., & Möhring, M. M. (2018). Definition of key drivers for project success regarding the General Data Protection Regulation (GDPR). ResearchGate.
- Damian, D., Chisan, J., Allen, P., & Corrie, B. (2003). Awareness meets requirements management: awareness needs in global software development. In Proc. of the Int'l Workshop on Global Software Development, International Conference on Software Engineering (ICSE 2003).
- Dearing, J. W. & Cox, J. G. (2018). Diffusion of innovations theory, principles, and practice. *Health Affairs*, 37(2), 183-190.
- Dvir, D., Raz, T., & Shenhar, A. J. (2003). An empirical analysis of the relationship between project planning and project success. *International Journal of Project Management*, 21(2), 89-95.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4): 532–550.
- Eisenhardt, K. M. (1991). Better stories and better constructs: The case for rigor and comparative logic. *Academy of Management review*, 16(3), 620-627.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, 50(1), 25-32.
- Faifr, A., & Januska, M. (2018). Companies' readiness of GDPR and implementation barriers. In *Proceedings of International Academic Conferences* (No. 6710209). International Institute of Social and Economic Sciences. doi:10.20472/IAC.2018.041.013
- Fichman, R. G., & Moses, S. A. (1999). An incremental process for software implementation. *Sloan Management Review*, 40(2), 39-52.

- Fixsen, D. L., Naoom, S. F., Blase, K. A., & Friedman, R. M. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, Florida: University of South Florida.
- Fortune, J., & White, D. (2006). Framing of project critical success factors by a systems model. *International Journal of Project Management*, 24(1), 53-65. doi: 10.1016/j.ijproman.2005.07.004
- Fullan, M. (2007). *The New Meaning of Educational Change* (4th ed.). London: Routledge.
- Garcia-Sanchez, N. & Pérez-Bernal, L. E. (2007). Determination of critical success factors in implementing an ERP system: A field study in Mexican enterprises. *Information Technology for Development*. 13(3), 293-309. doi: <https://doi.org/10.1002/itdj.20075>
- Gido, J., Clements, J., & Clements, J. (2014). *Successful project management*. Nelson Education.
- Gogstad, P. (April 5th, 2018). The Insurance Industry and GDPR: The Insurer's Guide to Compliance. [Blog entry]. Retrieved from <https://blog.noria.no/-the-insurance-industry-and-gdpr-the-insurers-guide-to-compliance>
- Grønmo, S. (1982). Forholdet mellom kvalitative og kvantitative metoder i samfunnsforskningen. In Harriet Holter and Ragnvald Kalleberg (Eds), *Kvalitative metoder i samfunnsforskning*, (p. 94–122). Oslo: Universitetsforlaget.
- Hammer, M. & Stanton, S. (1995). *The Reengineering Revolution*, Harper Collins, New York.
- Hickey, A.M. & Davis, A.M. (2004). A unified model of requirements elicitation. *Journal of Management Information Systems* 20(4), 65–84.
- Holme, I. M. (1996). *Metodevalg og metodebruk*. Tano.
- Hoorn, J.F., Konijn, E.A., van Vliet, H. & van der Veer, G. (2007). Requirements change: fears dictate the must haves; desires the won't haves. *The Journal of Systems and Software*. 80(3), 328–355.
- Hussein, B. (2018). *The road to success: narratives and Insights from real-life projects*. Fagbokforlaget
- Ika, L. A. (2009). Project success as a topic in project management journals. *Project Management Journal*, 40(4), 6-19. doi: 10.1002/pmj.20137
- Ingram, H., Biermann, K., Cannon, J., Neil, J., & Waddle, C. (2000). Internalizing

- action learning: a company perspective. Establishing critical success factors for action learning courses. *International Journal of Contemporary Hospitality Management*, 12(2), 107-114.
- Jawad, S., Ledwith, A. & Panahifar, F. (2018). Enablers and barriers to the successful implementation of project control systems in the petroleum and chemical industry. *International Journal of Engineering Business Management*, 10, 1-13. doi: 10.1177/1847979017751834
- Jiang, J.J., Klein, G. and Balloun, J. (1996). Ranking of system implementation success factors. *Project Management Journal*, 27(4), 49-53.
- Kaur, J. A. S. B. E. R. & Rashid, N. D. N. (2008). Malaysian electronic government adoption barriers. *Public Sector ICT Management Review*, 2(1), 38-43.)
- Kerzner, H. (2004). *Advanced project management: Best practices on implementation*. John Wiley & Sons.
- Kim, E., Wells Jr, W. G., & Duffey, M. R. (2003). A model for effective implementation of Earned Value Management methodology. *International Journal of Project Management*, 21(5), 375-382.
- Kohl, K. (2016). Closing the gap between sustainable strategy and implementation. Paper presented at PMI Global Congress 2016—EMEA, Barcelona, Spain. Newtown Square, PA: Project Management Institute.
- Kumar, D. (1989). Developing strategies and philosophies early for successful project implementation. *International Journal of Project Management*. 7(3). 164-171.
- Kurupparachchi, P. R., Mandal, P., & Smith, R. (2002). IT project implementation strategies for effective changes: a critical review. *Logistics information management*, 15(2), 126-137.
- Larsen, M. A., & Myers, M. D. (1999). When success turns into failure: a package-driven business process re-engineering project in the financial services industry. *The Journal of Strategic Information Systems*, 8(4), 395-417.
- Larson, E., & Gray, C. (2018). *Project management: The managerial process* (7th ed.). 2 Penn Plaza, New York: McGraw-Hill Education
- Lechler, T. & Gao, T. (2012). Explaining project success with client expectation alignment: an empirical study. Paper presented at PMI Research and

- Education Conference, Limerick, Munster, Ireland. Newtown Square, PA: Project Management Institute.
- LeCompte, M. D., & Goetz, J. P. (1982). Problems of reliability and validity in ethnographic research. *Review of Educational Research*, 52(1), 31-60.
- Lee, G. & Xia, W. (2005). The ability of information systems development project teams to respond to business and technology changes: a study of flexibility measures. *European Journal of Information Systems*. 14(1), 75-92.
- Li, Y., Yang, M. H., Klein, G., & Chen, H. G. (2011). The role of team problem solving competency in information system development projects. *International Journal of Project Management*, 29(7), 911-922.
- Locke, D. (1984). *Project Management*. New York: St. Martins Press.
- Loon, L. T., Yee, K. M., Mahdzir, A., & Bakar, N. A. (2017) CRITICAL SUCCESS FACTORS (CSF) OF ERP IMPLEMENTATION: A STUDY WITH TRIZ PERCEPTION MAPPING. *MALAYSIAN CONSTRUCTION RESEARCH JOURNAL (MCRJ)*, 1(1), 140-259.
- Martin, C. C. (1976). *Project Management: how to make it work*. New York: Amacom
- Mikkelsen, D., Soller, H. & Strandell-Jansson, M. (2017). The EU data protection regulation—compliance burden or foundation for digitization? Retrieved from <https://www.mckinsey.com/business-functions/risk/our-insights/the-eu-data-protection-regulation-compliance-burden-or-foundation-for-digitization>
- Müller, R., & Jugdev, K. (2012). Critical success factors in projects: Pinto, Slevin, and Prescott – the elucidation of project success. *International Journal of Managing Projects in Business*, 5(4), 757-775. doi: <https://doi.org/10.1108/17538371211269040>
- Munns, A. K., & Bjeirmi, B. F. (1996). The role of project management in achieving project success. *International Journal of Project Management*, 14(2), 81-87.
- Nandhakumar, J. (1996). Design for success?: critical success factors in executive information systems development. *European Journal of Information Systems*, 5(1), 62-72.
- Niazi, M. (2009). Software process improvement implementation: avoiding

- critical barriers. *CROSSTALK. The Journal of Defense Software Engineering*, 22(1), 24-27.
- Niazi, M., Wilson, D. & Zowghi, D. (2004). Critical barriers for SPI implementation: an empirical study. *IASTED International Conference on Software Engineering*, 389–395.
- Official Journal of the European Union. (2018). *REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General D*. Retrieved from: General Data Protection Regulation: <https://gdpr-info.eu>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. (3rd ed.). Thousand Oaks, California: Sage Publications.
- Pinto, J. K., & Millet, I. (1999). Successful information system implementation – the human side. (2nd ed.) Sylva, NC: Project Management Institute.
- Pinto, J. K., & Slevin, D. P. (1987). Critical factors in successful project implementation. *IEEE Transactions on Engineering Management*, (1), 22-27. doi: 10.1109/TEM.1987.6498856
- Pinto, J. K., & Prescott, J. E. (1988). Variations in critical success factors over the stages in the project life cycle. *Journal of Management*, 14(1), 5-18.
- Pinto, J. K., & Prescott, J. E. (1990). Planning and tactical factors in the project implementation process. *Journal of Management studies*, 27(3), 305-327.
- Pinto, J. K., & Slevin, D. P. (1988). Project success. *Project Management Journal*, 4, 67-72.
- Politou, E., Alepis, E., & Patsakis, C. (2018). Forgetting personal data and revoking consent under the GDPR: Challenges and proposed solutions. *Journal of Cybersecurity*, 4(1). doi: <https://doi.org/10.1093/cybsec/tyy001>
- PMI (2019). What is Project Management? Retrieved from: <https://www.pmi.org/about/learn-about-pmi/what-is-project-management>
- Rana, N. P., Dwivedi, Y. K. & Williams, M. D. (2013). Analysing challenges, barriers and CSF of egov adoption. *Transforming Government: People, Process and Policy*. 7(2), 177-198.
- Raymond, L., & Bergeron, F. (2008). Project management information systems:

- An empirical study of their impact on project managers and project success. *International Journal of Project Management*, 26(2), 213-220.
- Riege, A. (2005). Three-dozen knowledge-sharing barriers managers must consider. *Journal of Knowledge Management*, 9(3), 18-35.
- Rogers, E. M. (1995). *Diffusion of Innovations* (4th ed.). New York: The Free Press
- Roland, P., & Westergård, E. (Eds.). (2015). *Implementering: å omsette teorier, aktiviteter og strukturer i praksis*. Oslo: Universitetsforlaget AS.
- Sarker, S. & Lee, A. S. (2003). Using a case study to test the role of three key social enablers in ERP implementation. *Information & Management*, 40(8), 813-829.
- Sayles, L. R. & Chandler, M. K. (1971). *Managing Large Systems*. New York: Harper and Row.
- Schwalbe, K. (2015). *Information technology project management*. Cengage Learning.
- Scott, G. J. (1996). Expanding the role of the project director as the CIO in the information technology industry. *Project Management Journal*, September, 5-15.
- Sekaran, U. & Bougie, R. (2013). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Serrador, P. & Turner, R. (2015). The relationship between project success and project efficiency. *Project Management Journal*, 46(1), 30-39.
doi: 10.1016/j.sbspro.2014.03.011
- Shenhar, A. J., Tishler, A., Dvir, D., Lipovetsky, S., & Lechler, T. (2002). Refining the search for project success factors: a multivariate, typological approach. *R&D Management*, 32(2), 111-126
- Slevin, D.P. & Pinto, J.K. (1986). The project implementation profile: new tool for project managers. *Project Management Journal*, 17(4), 57-63.
- Snyder, N. (2017). Top 5 impacts of GDPR on the European financial services industry. Retrieved from
<https://www.worldfinance.com/strategy/top-five-impacts-of-gdpr-on-the-european-financial-services-industry>
- Stoll, L. & Fink, D. (1996). *Changing our schools: Linking school effectiveness and school improvement*. Open University Press.
- Tan, R.R. (1996). Success criteria and success factors for external technology

- transfer projects. *Project Management Journal*, 27(2), 45–56.
- Turner, J. R. & Müller, R. (2003). On the nature of the project as a temporary organization. *International Journal of Project Management*, 21(1), 1-8.
- University of Leeds. (2019). Policy Instruments: A Policy Guidebook. Retrieved from
<http://www.its.leeds.ac.uk/projects/konsult/public/level1/sec10/index.htm>
- van IJzendoorn, G. (2019). How the General Data Protection Regulation enables stronger Data Governance. Retrieved from
<https://www.evry.com/no/campaigns/how-the-general-data-protection-regulation-enables-stronger-data-governance/>
- Wells, J. (2018). GDPR's Silver Lining: Q&A with BackOffice Associates' Rex Ahlstrom. *Big Data Quarterly*. 4(2), 4-5. Retrieved from
<http://www.dbta.com/BigDataQuarterly/Articles/GDPRs-Silver-Lining-QandA-with-BackOffice-Associates-Rex-Ahlstrom-124782.aspx>
- Williams, P., Cregeen, A. & Scarffe, N. (2018). The evolution of data protection – are you ready for GDPR? Retrieved from
<https://www.pwc.com/im/en/services/advisory.html>
- Wilson, T. D. (1989). The implementation of information system strategies in UK companies: Aims and barriers to success. *International Journal of Information Management*, 9(4),245-25.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Newbury Park, CA: Sage.
- Yin, R. K. (2012). *Applications of case study research*. Sage.
- Yukl, G. (2013). *Leadership in Organizations* (8th ed.). United States: Pearson Education Inc.
- Young, R., & Jordan, E. (2008). Top management support: Mantra or necessity?. *International Journal of Project Management*, 26(7), 713-725.