Key Focus Areas For Successful Procure-to-Pay Software Replacement Case: Company X

John Långström

| **Author** | |
| John Långström | |

| **Degree programme** | |
| International Business | |

| **Report/thesis title**
Key Focus Areas For Successful Procure-to-Pay Software Replacement Case: Company X | **Number of pages and attachment pages**
40+1 |

This thesis focused on finding the key improvement areas for Company X during their Procure-to-Pay software replacement process. The thesis was done as a commissioned thesis for Company X as the author was working for the company while conducting this research. The key focus areas were chosen based on the interviews conducted on Company X's employees that were working on this specific software replacement.

The theoretical framework was made to better understand the software replacement process as a whole and to study some of the concepts related to the process. This included studying digital financial management, change management, Procure-to-Pay software and outsourcing. These are all key subjects when trying to understand what goes into a software replacement process, what are the main drivers for replacements processes, how outsourcing effects the process and what should be taken into consideration when working on this type of a process.

The research was done using the qualitative method. Thematic analysis was used on the data that was acquired with structured interviews. These interviews were conducted on a focus group that consisted of Company X's employees that were working on this replacement process. The interview questions were split into themes. The themes were related to the investigative questions that were formed from the subjects that Company X proposed to be studied for this research.

The answers acquired from the interviews were observed and combined with the information gained from the theoretical conclusions. The interviews were focus group interviews where 6 employees of Company X were interviewed. The answers were analysed by thematic analysis. The results pointed out the key focus areas. Areas like change management, preparation of end-users, having clear goals and being prepared for unexpected changes were some of the key focus areas. Acknowledging these could help companies to execute a successful software replacement.

Company X was given recommendations based on the key findings. These recommendations included focusing on change management, organisational differences, end-user preparation and awareness towards unexpected changes. Recommendations for further research were given. These recommendations included more interviewees from different backgrounds and companies. Researching multiple similar software replacements could make the data more general. This would make the data useful for a larger audience.

Table of contents

1   Introduction

This research was conducted in order to improve the replacement process of a Procure-to-Pay software. The goal of the research was to find the key areas that can be improved from the commissioning company's viewpoint. The study is a Bachelor's thesis that is done for the international business degree programme in Haaga-Helia University of Applied Sciences in the major of accounting and finance.

This chapter talks about the background of the thesis and why this research is useful for Company X and their outsourcing customers. The chapter will also go through the research question and the investigative questions that are formed from the research question. These investigative questions give direction to the research. This chapter will also go through the demarcation of the research, as well as the benefits for the stakeholders. The author of this thesis works fulltime for Company X and took part in the software replacement process.

1.1   Background

The replacement of an existing software is a phenomenon that most companies go through at some stage of their existence and these changes never happen without problems. Company X provides outsourcing services. Because the company has multiple customers go through these changes, it is vital that the key improvement areas are acknowledged for improvement. This makes it possible to keep up with the promised service provision.

Multiple studies have been done on the success of software implementation projects. Especially on the implementation of ERP software. These studies show that more than 40% of these implementation projects fail to meet the goals they have had since the launch of the project. Also, nearly 90% of these projects are late or do not stay within the set budget. (Grady 2009.)

Outsourcing of financial management is a growing field of business. It covers a lot of different lines of work that are commonly in-house. This research looks at the Procure-to-Pay process which is one of the parts that financial management covers. Variety of routine-based processes and the development of them is not the primary focus of many companies. Therefore, outsourcing provides benefits to these companies. (Efima 2020).

This thesis is formed from the need of the commissioning company to find the key areas to improve in the replacement process of Procure-to-Pay software. The key focus areas are recognised from the current Procure-to-Pay software implementation process that Company X conducts to its customer. The author of this thesis has been working on this specific replacement process. Therefore, the author has insight on the key improvement areas. It needs to be noted that the research is formed from one implementation which is done to a specific customer with a specific software. Because of this, there are aspects that are limited to this specific scenario. The research aims to give valuable information for Company X about the implementation process. As well as to find the key improvement areas for the areas to be acknowledged and improved on in similar cases in the future.

1.2 Research question

The aim of this thesis was to ensure that Company X can keep up with the optimal service provision while replacing the old Procure-To-Pay software with a new one. It is crucial to outline the key focus areas to improve on for them to not cause problems with the service provision. This leads to a research question (RQ) that is:

What are the key focus areas for a successful Procure-to-Pay software replacement?

The research question was supported by the following investigative questions (IQ's) in order to better understand and recognise the problems. These questions were formed with the help of the commissioning company. The overlay matrix of this research can be found from appendices, appendix 2.

IQ1- How to ensure that the end-users and other stakeholders are prepared for the replacement of the software?

IQ2- How to make sure that there are enough resources available before and after the replacement process?

IQ3- Were the goals for the replacement process clear for the employees working on it?

IQ4- Were the issues with the software acknowledged and dealt with in a timely manner?

1.3 Demarcation

For this thesis, the author focused on the accounts payable side of financial management. More specifically, the process of handling incoming invoices, since this is what Company X offers to this specific customer. The processes that are managed by the customer are excluded from this research. This includes all the Procure-to-Pay process steps apart from invoices.

The customer will remain anonymous and therefore customer specific improvement areas will be excluded from the scope of this thesis.

This research was conducted on one specific software replacement process and only one specific software is included in the research. This excludes issues related to other software from the scope of this research. The aim is to look at general improvements that can be utilised even when taking a part in a replacement process with a different software or customer.

1.4 International aspect

The research is about a phenomenon that companies all around the world face. Company X has already expanded one of their business areas to the US. This gives the possibility of having similar cases, like the one studied in this research, happen abroad.

1.5 Benefits

The benefit for Company X came from the results, as they provided information on the key areas to improve on. This allows to keep up with the promised service provision in similar projects such as the Procure-to-Pay implementation studied in this thesis. The thesis also gave Company X information about the software replacement process from the viewpoint of its employees that have been working on the project.

The research benefits the customer as well as the software provider since some of the key improvement areas can be beneficial for them. This ensures that the on-going transition has the best possible outcome.

The author benefited from the experience gathered while conducting this research. The author was working on the software replacement process related to the research Therefore the author gathered knowledge and skills that are beneficial for the research as

well as the author. Work experience will also be acquired during the making of this thesis which will be beneficial for the authors future working life.

1.6   Key Concepts

Digital Financial Management is a form of financial management of a company in which the process is conducted mostly via automated software. Digital financial management covers the receiving and managing of purchase invoices, sales invoicing, automated up-to-date accounting as well as reporting to the authorities. The key benefit of digital financial management is that it can be accessed from anywhere (Finago 2020.). Digital financial management handles all invoices in a digital form, meaning no physical invoices.

E-invoice is in a digital format throughout its whole cycle, from issuing the invoice to archiving it after the payment has been made (Moran 2021). This means that e-invoice can never be in a physical format.

Enterprise resource planning often abbreviated as ERP. This refers to systems and software that are used to manage the financial, manufacturing, supply chain and other processes of a company (Qad s.a)

Procure-to-Pay also known as Purchase-to-pay, or by the abbreviation P2P, is the process that starts from order and ends in payment. This process consists of multiple different activities such as; requisition; purchasing; receiving, paying and accounting for the goods and services. This means that there needs to be numerous people that take care of the processes. (Taylor 2018.)

Business-to-Business happens when one business makes a business transaction with another business. This is often abbreviated to B2B or BtoB. Companies operating in Business-to-business offer goods or services to other companies in order to grow and operate at their best capacity. (Uzailko 2019.)

Outsourcing means that a company purchases services from another company for processes that the company would normally do internally (Linden 2004, 27). Therefore, it outsources the activity to another company, in order to focus better on other internal matters.

4

Change Management focuses on helping employees to deal with change. The aim is to help the employees adapt to the change in order to continue with their normal work (Prosci 2020). These changes often occur due to the rapidly evolving digitalisation.

1.7 Case Company

The case company of this thesis stays unnamed and will be referred to as Company X. Company X was founded in 2009 by four people that had a vision of a financial management company different to those already operating in the market. In 2020 the company had a revenue of 17.7 million and a net loss of -785 000€ (Finder 2021). The headquarter of Company X is located in Helsinki, Finland. It also has offices in Tampere and Austin, TX, U.S.

Company X offers a wide variety of services. The services available are financial management, Enterprise resource planning (ERP), robotic process automation and artificial intelligence. All these services have many sub services. Procure-to-Pay which is the service that is studied in this research, operates under financial management services. The core customers of Company X are medium to large sized companies.

The need for this research came from the fact that Company X is currently going through a software implementation process with one of their outsourcing customers. The research aimed to find the key areas that Company X can improve on and take into consideration in similar cases in the future.

2   Software system replacement

This chapter contains information on the key components of the implementation process and the theoretical framework of the thesis. It will go through the different areas that influence the implementation process of the new software. It gives the reader a better understanding on the different components of the process and how they are all linked during the replacement of the software.

2.1   Digital financial management

Digital financial management refers to the automated financial management. This includes sending invoices, receiving invoices, bookkeeping, circulation of the invoices and the approval of the invoice. Digital financial management is starting to be common in the Nordic countries that are the forerunners of electronic invoicing, often referred to as e-invoicing. The core of digital financial management is rather self-explanatory, as all the invoices processed are in a digital form. (Visma s.a.)

Digital financial management is becoming popular across all of Europe, and this is mainly because the EU has promoted the change process from old paper invoicing to the modern e-invoicing. The EU has measured the benefits of e-invoicing to be close to 40 billion euros annually across Europe. This number comes solely from the B2B field. All EU countries must follow the European e-invoicing standard. This standard was set to combat the issues that arise from the usage of multiple different e-invoice formats. (EU Commission s.a.)

Figure 1 demonstrates the market maturity for e-invoicing. It displays that the leaders of the change are the Nordic countries and the South American region. However, The North America, most of Europe, Russia, South-Africa and Australia are still on the average maturity for e-invoicing. Being labelled as "laggards" does not mean that there is not any e-invoicing activities in those areas. They are typically in a very early stage of adapting e-invoicing. (Koch 2017, 18.)

Figure 1. Electronic invoice market maturity (adapted from Koch 2017, E-invoicing/E-billing, 18)

Having knowledge of e-invoicing and understanding the concept of it, is vital to understanding the full picture of digital financial management. Digital financial management has gained attraction because companies want to be as cost and overall efficient as possible. The main driver for this is the growth in e-invoicing and the automation possibilities that arise from it (Aho, Annala, Huhtala & Jutila 2018). This forces a rising number of companies to update or replace their existing Procure-to-Pay software in order to maintain up to speed with the fast-evolving financial management industry. This growth in companies needing to change or replace their existing Procure-to-Pay software creates a need for this research. This is beneficial for companies similar to Company X that provide these services for their outsourcing customers.

2.2   Evolving Financial Management

To better understand the phenomenon that is one of the causes for cases like in this research, it is important to understand how financial management has evolved throughout the years.

Figure 2 illustrates how financial management has evolved during the last 30 years. During the 1990s the term *paperless accounting* was widely used. This meant that all statutory documents were presented in digital form, but invoices were still to be delivered in paper form. This era was followed by electronic financial management that started in

the 2000s. This was a clear step forward from the earlier years since everything had switched to electronic form. Physical invoices were still the main way of delivering invoices, but they were scanned into electronic form so they could be handled electronically. In the 2010s digital financial management started to supersede electronic financial management and it was a huge step for the whole industry. Digital financial management meant that everything was done in a digital form. It also meant that financial management transactions and reporting was automated, data was being transferred electronically and a stronger integration of all the processes within financial management. Digital financial management means that all of the invoices are e-invoices, and no physical invoices are being handled any longer. Smart financial management is starting to take over digital financial management, but it will take time before most companies have adopted the newest financial management technology. (Kaarlejärvi Salminen 2018, 15; Suomela 2018.)
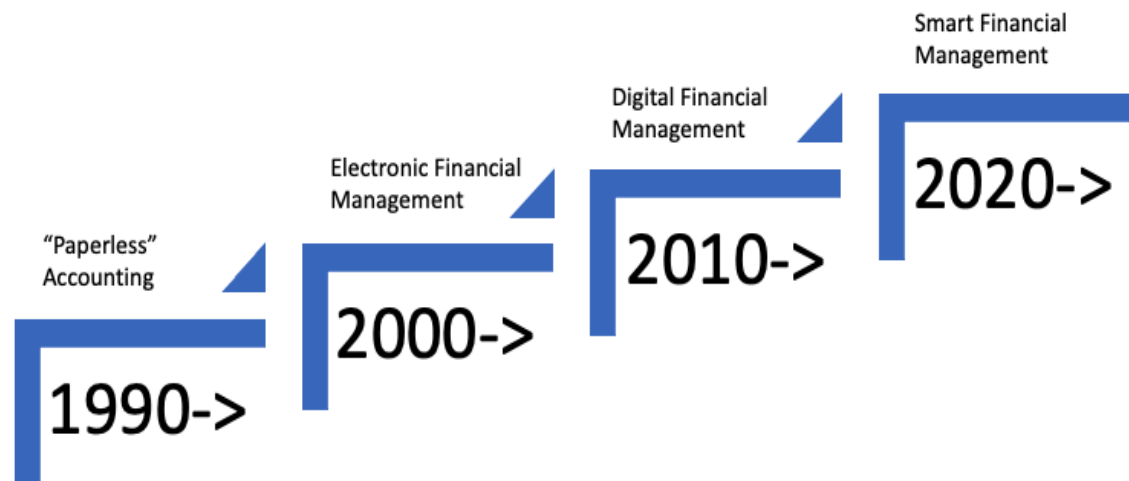
Figure 2. Financial management digitalisation (adapted from Kaarlejärvi & Salminen 2018, 16)

Smart financial management is the latest trend in the fast-evolving financial management industry. Smart financial management involves the following elements; up-to-date data; efficient and accurate processes and results; utilisation of latest technology; automation of all routine tasks; and the support of financial management to the organisation and other stakeholders. (Kaarlejärvi & Salminen 2018, 17-19.)

It is still a common misconception that automation will leave countless people without jobs. The main idea in smart financial management is not to have automation replace all human work. The idea is to have the automation do all the manual labour, leaving more time for the employees to focus on more relevant tasks.

Figure 3 illustrates the connection that people, and the new technology and software will have in financial management. The prerequisite for smart financial management is

resharing the work between humans and software. Technology is evolving in the direction where automation will be able to handle most of the financial management tasks. This leaves financial management experts with more time to focus on developing business functions and to take part in the continuous development of the financial management sector. (Kaarlejärvi & Salminen 2018, 19-21.)

Figure 3. Financial management sectors and resources (Adapted from Kaarlejärvi & Salminen 2018, 20)

Answering the question to how and why financial management is evolving is the key to understanding why situations like the one studied in this research are becoming more common. Software replacement processes in the financial management sector are increasing because of the field constantly evolving. This adds value to the research since acknowledging some of the problems that a company can face during these replacement processes can help Company X in making the process more efficient.

2.3   Change management

Change management (CM) is vital when an organisation, team or an individual is going through a change. CM prepares a plan or guidelines which aim to make the process smooth for all stakeholders within the change. (Prosci 2020.) CM is one of the key elements during this change since there is hundreds of people that are using the software. Poorly executed CM will most likely cause problems in the future since there are so many different aspects to this change that if something gets overlooked it will influence several

people. All organisations take part in some form of CM whether they call it change management or not (Axelos 2017).

CM gets often overlooked when preparing for a change. This can cause numerous issues due to the nature of organisational changes. When planning a change, it should be considered that changes in an organisation should be looked on an individual level. Well executed CM is also one of the key drivers for a successful change and will increase the likelihood of a smooth change process. (Prosci 2020.)

In their article about the importance of CM Prosci (2020) mentions that if the **people side** of change is ignored, it can prove to be very costly for the organisation. This can be seen in declining productivity amongst employees, lower morale, stress and employees leaving the organisation due to frustration that could have been avoided with properly executed CM. (Prosci 2020.)

Timing in organisational change is one of the key areas to look at when planning a change. The focus should be on how to make the change as smooth as possible and how to avoid issues generated by the change. Introducing organisational change on a busy season will make proper CM harder than it should be. (Buckner 2016.)

CM often looks at the **soft factors** that can be areas such as leadership, motivation and company culture. While these subjects are important in any company, so called **hard factors** should also be addressed in CM. These factors are split into three categories: it can be measured; the importance is easily communicated, and they can be influenced in a quick fashion. (Sirkin, Keenan & Jackson 2005.)

Sirkin et al. (2005) list four concepts that fit in the definition of hard factors: effort, commitment, integrity and duration. All four concepts can be measured, their importance can be easily communicated inside the organisation and they can easily be influenced (Sirkin et al. 2005).

Figure 4 shows the basic process that is included in organisational change. This cycle gives idea on what the steps are for CM. The cycle starts from requesting change in something. The next step in analysing the impact this change can have on the organisation and based on this information, approving or denying the change. Then the actual implementation of this change starts after which this report can be done. The report can be then reviewed in order to determinate if the goals set for the change were met.
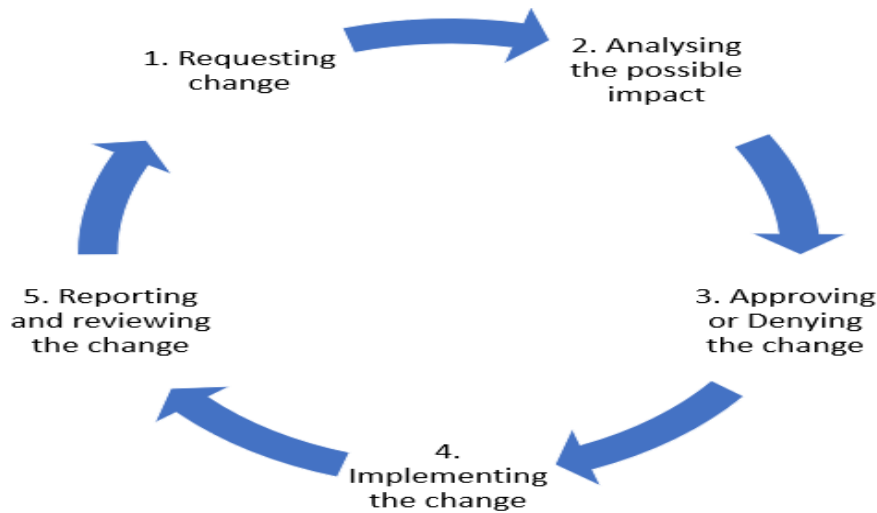
Figure 4. Change management process (adapted from Taylor 2017)

2.4 IT Change Management

Information technology (IT) CM is one of the numerous processes where CM can be utilised. IT CM can often be challenging since changes in the IT side of business often impacts the whole organisation and not just one department within the company. There are numerous areas of the business that are affected by, for example, implementation of a new software. All of these aspects should be taken into consideration when planning and executing the change.

AXELOS (2017) writes about IT CM in their book and offers a list of definitions for CMt:

- Supporting the timeliness and effectiveness of implementing changes within the business.
- Risk management.
- Making sure that the negative impact from the change is as minimal as possible for the company.
- Secure the outcome of the change in order to achieve the wanted results.
- Establishing correct execution of governance for them to meet the expectations. (Axelos 2017.)

The list above does not only apply for IT CM but can be used in a variety of different changes in organisations.

Change management in IT projects can prove to be very beneficial since it helps to implement the changes quicker, track the progress, give better cost estimates and make the process more transparent (Topdesk s.a.).

Preparing end-users for new software is vital. Having multiple sources to study from, can help the users to stay interested in learning the new software. These sources can be videos, webinars, observations and images. While the mentioned study methods are effective, the most effective way is to have the end-users try out the new software in order to fully understand the software. (Gabris 2020.)

All organisations have employees that are viewed as leaders regardless of their actual status in the company. Utilising these employees in promoting the change, works as a repellent for resistance that the change may cause in employees. It can also work as a motivator and empower the employees looking up to these leader figures. (Gabris 2020.)

2.5   Procure-to-Pay software

Procure-to-Pay software is a software used to handle the purchasing and payment process of everything within the organisation. It is an integration of purchasing and the accounts payable (AP) department. Procure-to-Pay software aim to have as many steps automated as possible, which enables fewer human interactions needed for the whole process to go through. The six steps included in Procure-to-Pay are listed and explained in the next chapter. (Lewley 2020).

2.5.1   Procure-to-Pay Software Process

The picture below explains the Procure-to-Pay process which is executed via the software itself. Most Procure-to-Pay software can handle all the six steps included in figure 2. However, there can be different software for the purchase and pay parts of the process. There are usually different departments that handle each process. Purchases can often be done by multiple people in the company whereas the pay part of the process is often handled by a smaller department and all the invoices within the company go through that department. The idea is to automate a complex process that is spread within multiple departments and roles within the company. (Airbase 2020).

The first three steps in figure 5 are part of the purchase part of the process and the latter three parts are part of the pay process. For this research it is important to note that with this specific customer, Company X works only on the pay part of the process. Furthermore, its responsibility lies only on the last two parts of the process which are

invoice and payment. However, the process is tied together and therefore it is important to go through the whole process for this research.

Figure 5. Procure-to-Pay process (adapted from Schmidt 2019)

Step 1: Requisition is the first part of Procure-to-Pay process. When the need has been identified, a requisition can be created. The request is done through a form which is then sent for an approval (Kissflow 2021).

Step 2: Quotation happens after the requisition has been approved. After the approval, the quotation can be done. The procurement team can then either order the goods or services or get quotations from suppliers. (Tompkinson 2019.)

Step 3: Purchase order is the third and last step of the purchase part of the process. Purchase order is often abbreviated to PO. During this step, the procurement team will create a legally binding document that will show the requirements and quantities of the order for the vendor. The PO will include the terms and conditions in case the supplier fails to deliver the promised goods or service. (Tompkinson 2019.)

Step 4: Delivery is the first step of the latter three steps of the whole process. It belongs to the pay part of the process since the payment often happens after the delivery is done. It can be then confirmed that what has been agreed on in the purchase order by the supplier and the company making the PO has been fulfilled. There are cases where payment is done before receiving the good or service, but the PO is a legally binding document and breaching it would have legal consequences which are noted in the terms and conditions of the PO.

Step 5: The invoice part of the process happens when all of the previously mentioned steps have been fulfilled and the supplier has sent the invoice. The received invoice will be compared to the PO to ensure it matches. (Tompkinson 2019). If there are differences between the PO and the invoice, the procurement team is often the one contacting the supplier to find out why there is a difference.

In this research, invoice is the part where Company X works the most in the Procure-to-Pay process. There can be invoices that do not follow the whole process. These invoices can come from multiple different sources, since not all of the purchases are done by the "official" route where PO is included. All invoices go through a chain of approval. In this research, the chain of approval consists of two people that make sure that the invoice received is correct. If the invoice is declined during the chain of approval, a reclamation will be sent to the supplier.

Step 6: Payment is the last part of the Procure-to-Pay process. After the invoice has gone through the chain of approval, it is ready for payment. Once an invoice is approved, it will be moved to the accounts payable which will handle the payment (Basware 2021). The payment is done through a different software that is integrated to the Procure-to-Pay software.

2.5.2 Automation in Procure-to-Pay software

Automation in Procure-to-Pay process is a feature that all modern Procure-to-Pay software possess. It has become a building block of all the Procure-to-Pay software, and it will continue to be a trend in the Procure-to-Pay industry. A poorly working automation can lead to multiple issues within the Procure-to-Pay process that was introduced in Chapter 2.4.

The main idea behind automation in Procure-to-Pay is to eliminate as much manual tasks as possible to make the process more efficient. Automation can also provide transparency across the whole Procure-to-Pay process and get rid of human errors. (Clochet 2020.) Like mentioned in Chapter 2.2, the idea of automation in Procure-to-Pay is not trying to get rid of human employees, instead by automating manual tasks, these employees have more time to focus on other tasks that can be more beneficial for the company. Showing the benefits of automation to the employees, can help get rid of fear and resistance surrounding Procure-to-Pay process automation (Pearse 2019).

Figure 6 shows the stages of a typical Procure-to-Pay process automation. All the steps would traditionally contain a lot of manual work but due to automation the process has been simplified and manual work is only needed in problematic cases.
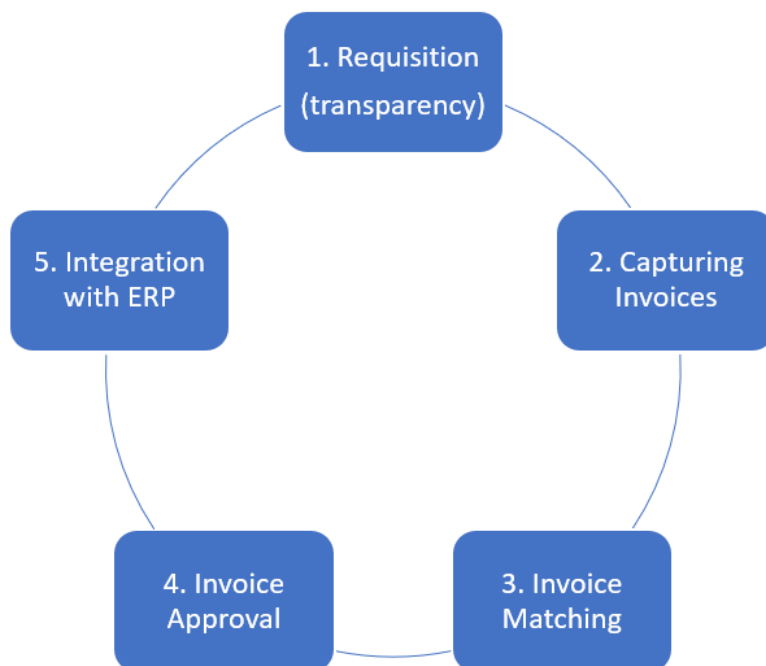
Figure 6. Procure-to-Pay automation stages (adapted from O'Brien 2017)

Requisition is the first step of the process. The software can contain set catalogues where goods and services can be ordered from vendors that have been approved. This offers more transparency on what and why is being purchased. (O'Brien 2017.)

Capturing invoices is the second step that all the modern Procure-to-Pay software have automated. It can capture invoices in multiple different forms and process them into the system. It can also sort the invoices depending on if they have PO numbers, are duplicates and if the vendor is a new one. (Clochet 2020.) These invoices are then managed differently in the next step.

Invoice matching can be seen as the most time-consuming process if not automated. It can match the invoice PO number with an open purchase order (O'Brien 2017). This step can also process non-PO invoices with methods like character recognition and this leaves the employees with less manual work (Clochet 2020).

Invoice approval is still split between manual work and automation. When invoice fulfils certain rules in the automation it can be approved automatically. On the contrary: when it fails to do so, manual approval of the invoice is needed. If the invoice does not fulfil the rules set in the automation, the invoice is sent to the stakeholder that is responsible for that specific invoice. (Kissflow s.a.)

Integration with ERP is the last step of the Procure-to-Pay automation process. Most modern Procure-to-Pay systems are integrated with ERP and this allows for a more streamlined process which gets rid of many manual steps of the process. (O'Brien 2017.)

In this research, the team of Company X works with many of the process steps but focuses mainly on the invoice matching part of the process. This is still one of the most time-consuming steps since many invoices are not done via PO's. This leaves the team with invoices that must be processed manually due to the not fulfilling the automation rules.

2.6   Outsourcing

Outsourcing is a service where a customer can hire another company to do a formerly internal service. There are multiple advantages to outsourcing. When a company outsources some of its activities, it allows them to focus more resources on their core competencies which creates more value for them and their customers. (Quinn & Hilmer 1994.)

Figure 7 shows some of the benefits that outsourcing brings. One of the main drivers for outsourcing is cutting down the costs of a certain business process. If the company is expanding abroad, outsourcing a business process provides them with a global footprint that helps the company within that market. When expanding the business abroad, outsourcing can be beneficial if language skills and market knowledge are necessary in the target country. (Kalkinemedia 2020.) Acquiring more time to focus on the core business and having more efficient business process through a specialised firm are the most common reasons why companies outsource.
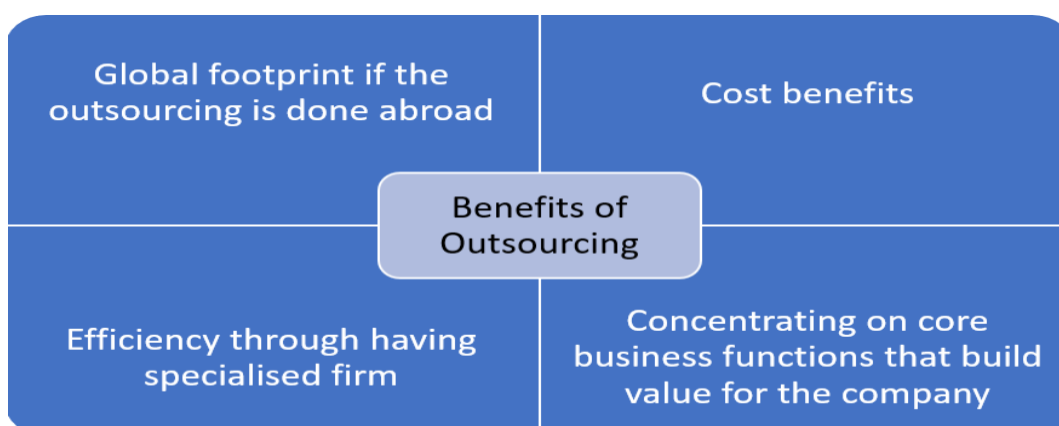

Figure 7. Benefits of outsourcing (adapted from Kalkinemedia 2020)

The main reason for outsourcing is to be more cost-efficient. In addition, the outsourcing partner offers more knowledge and skills in the field in which they operate in. Companies should outsource work that can be done better and cheaper by others so they do not waste resources trying to achieve that level of efficiency if it can be purchased elsewhere. (Power Desouza & Bonifazi 2006, 5-11.)

" Outsourcing is the act of transferring the work to an external party. Whether or not to outsource is the decision of whether to make or buy." (Power et al. 2006, 3).

The above quotation sums up the main idea behind outsourcing. Outsourcing has evolved from the old days of outsourcing manufacturing or production of goods and products. Outsourcing IT processes, for example, Accounts Payable or Accounts Receivable has become increasingly popular. When outsourcing a business process, it means that the service provider has all the needed knowledge, functions and processes to perform the task. Outsourcing has expanded from only providing the IT system to providing the whole process, from system to execution. (Beulen, Ribbers & Roos 2011, 14-18.)

2.6.1   Financial management outsourcing

Outsourcing financial management has become increasingly popular. It allows the company to focus on their core business. There are different options when outsourcing financial management. The company can either choose to outsource their whole financial management department which allows them to let go of their prior in-house financial management department. This allows for more cost-efficiency. When outsourcing the whole financial management, the main efficiency driver is having a software that fits your company. After finding the right software that fits the company, the usage of this software must be thorough, this allows the outsourcing to support the company's core businesses. (Kinnunen 2018.)

Kinnunen (2018) mentions in her blog post that outsourcing support functions, like financial management, does not mean that they are not important parts of the business. Having experts from the outsourcing company working on the company's financial management allows for high quality outcomes. Experts give the company extra value by allowing for cost and general efficiency. (Kinnunen 2018.)

Having outsourced financial management transfers most of the risks related to the outsourced service from the company to the provider of the outsourcing service. It brings more transparency, especially for smaller companies which can be seen as a positive

factor by investors. Outsourced financial management also offers more freedom in terms of scaling the business. When the business is growing, the outsourcing company takes care of hiring new employees to work on the outsourced business area. It also makes it easier to scale down the outsourced business since the company buying the outsourcing does not need to fire or lay off employees. (Partti 2019.)

In this research, Company X works on the customer's AP. They do not have full control over the AP sector of the business. The AP sector has been split between Company X and its customer. In this situation, Company X takes care of the most time-consuming parts of AP and the customer handles the remaining parts.

2.6.2 Issues with outsourcing

Outsourcing does not come without issues. In this chapter we discuss some of the issues that often happen in outsourcing business. One of the issues that often plague outsourcing is not having a clear picture about the decision making of the outsourced project. The outsourced company might have a different idea of the extent of their decision-making power to that of the company buying the outsourcing service. (Sardana 2019.)

Organisational differences are the cause of many issues when outsourcing business. If the outsourcing service provider's organisational culture and values differ a lot from the customer, it can cause issues between the service provider and the customer. (Sardana 2019.) These factors need to be taken into consideration when choosing an outsourcing partner.

Poor knowledge transfer is also one of the issues that happens in many outsourcing projects. This can be from either the service provider or the customer's side. If information between the two parties involved does not flow smoothly it can decrease the overall efficiency of the service and even cause operational risks. (McCray 2018.) Having poor knowledge transfer can start piling up issues since actions taken towards these issues are prolonged by the fact that the information has not transferred between the customer and service provider.

End-user resistance is not purely connected to outsourcing, but it is a common issue when engaging in outsourcing. Outsourcing provides new methods to do certain work-related tasks. This can be on the outsourcing service provider's side or on the customer side, but changes are inevitable when moving from in-house services to outsourced

services (McCray 2018.). To some extent, end-user resistance will be present in any change that happens within a company. The main way to avoid this resistance from happening, is preparing the end-users for the change.

Not understanding the real costs of having a certain internal service, causes issues when outsourcing the service. If the people making the decision to outsource do not understand the current costs of the service, it will cause problems when outsourcing the service. This causes disagreement between the two parties which can lead to determination of the service. (Wallace 1998.)

These are some of the issues related to outsourcing. The ones mentioned above were chosen since they are the ones that are most relevant to this research. These issues are common when outsourcing services and are bound to happen at some point of the process. What differentiates a well working outsourcing service to a poorly working one, is how these issues are handled by the stakeholders when the issues are met.

2.7 Common issues when implementing a new software

New software implementation is a global phenomenon and is not restricted to only financial management software in any form. In the ERP market, which financial management software is one part of, up to 75% of implementations fail. This means that they do not meet the goals that were set for the implementation. (Schroeder 2019.) This chapter talks about the common issues that are present in most software implementation processes. These issues are not strictly tied to Procure-to-Pay software, but they give general information on what are the common pitfalls when implementing such changes.

Budget is a common issue in software implementations. It has been estimated that around 40% to 60% of software implementations exceed their set budget. This is commonly caused by neglecting some of the key areas that cause problems during these implementation projects. (Staley s.a.)

Change management gets often overlooked when the planning for a software replacement process starts. If the users and other stakeholders are left without help when trying to get used to the changes, it can cause multitude of issues. (Schroeder 2019.) These issues are studied more in depth in chapters 2.1 and 2.2. It has been estimated that around half of the most common issues when implementing a new software can be resolved with correctly executed CM (Deloitte s.a, 10).

Excluding users from the decision-making process when implementing a new software is a common mistake in software implementations. Experts are usually consulted regarding the implementation, but the actual users are commonly excluded. (Schroeder 2019.)

Neglecting training and having to **learn while operating** are also common issues in software implementations. In most of the new software implementation processes the users must learn the new software while still using the old one to manage daily processes. This leaves the employees with less time to properly learn the new software, which then leads to problems when the new software go-live happens. (Robinson 2015.)

Robinson (2015) also mentions **Data entry** as one of the issues that many companies face when switching to a new software. Moving data from the old software to the new one can cause an increase in manual labour that often gets overlooked.

Post go-live is a crucial time in a software implementation. Planning and executing a proper post go-live support is vital for a successful implementation process. What most successful software implementations have in common is the fact that they offered post go-live support and it was been planned beforehand. (Deloitte s.a, 13.)

3 Research methods

This chapter provides information on the research process and the methods used to gather data for the thesis. The chapter also examines the reliability and validity of the research.

3.1 Research design

There are two main research methods that are primarily used during a thesis process. These methods are **qualitative** and **quantitative** research.

Quantitative research is a method of research that focuses on numerical data. The data is collected and then analysed, and it can be used in many different forms. Quantitative data can be used to make predictions, find averages and patterns and to generalise data to bigger populations. This research method if often paired with questionnaires. These questionnaires have questions that have specific answers for the data to be easily analysed. (Bhandari 2020; Harland s.a.)

Qualitative research is the second method that is primarily used during a thesis process. The method is opposite to quantitative research as it focuses on gathering and analysing non-numerical data. This data can be used to get a better understanding of a phenomenon by collecting experiences, opinions and concepts. (Bhandari 2020.)

This thesis used the **qualitative research** method as it provides more insight into the thesis problem and leaves the author with more freedom to analyse the data collected from the conducted interviews. Figure 8 will showcase the basics steps of creating a qualitative study. These steps function as a roadmap in forming the research.
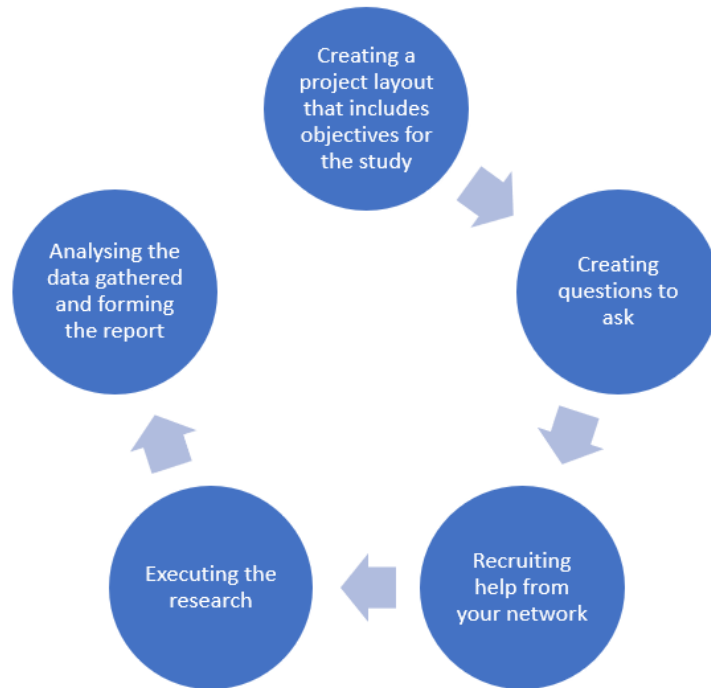
Figure 8. The 5 steps to creating qualitative study (adapted from Questionpro s.a)

Figure 9 illustrates the research design during the thesis. Thematic interviews were held for a focus group that consists of employees of Company X. The interviewees have been working on the software replacement project that the research is based on. Thematic analysis was conducted on the information gained from the interviews in order to acquire the required data for the research.

Figure 9. Research design

The research was conducted in one phase only, but a minor desktop study was conducted since articles and literature about the research subject was studied. The theory part of the thesis acts as a comparison for the data gathered from the interviews. This allowed to form a better analysis as well as providing information about the key subjects related to the software replacement process. This was done to better understand the process.
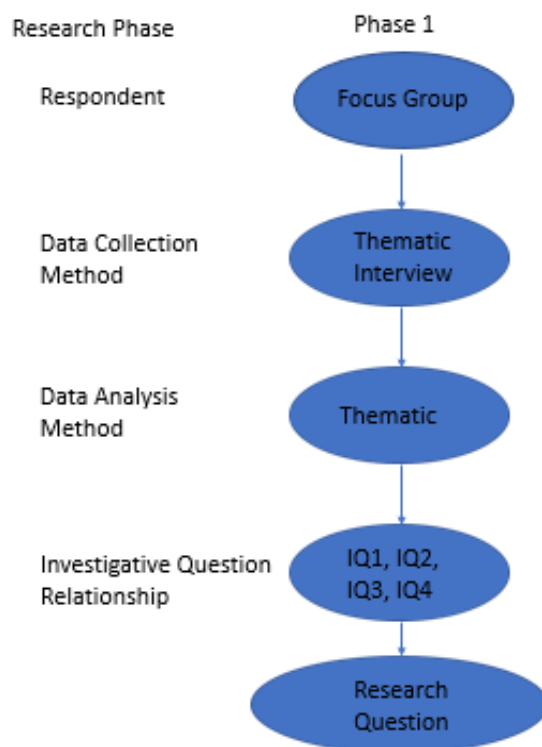
3.2   Data collection

The data for the research was collected through structured thematic interviews. This means that the author prepared closed-ended questions that are same for all the interviewees. The questions were read out in the same way for each interviewee. No pre-determined answers were provided in the interview, which allowed the interviewees to answer in their own words. (Macleod 2014.)

The interviews were conducted in a focus group since all the interviewees took a part in the software replacement process and are employees of Company X. The interviews were carried out through Microsoft Teams where the author wrote down the answers given by the interviewees. The interviews were done in a span of one week via Teams. The original plan was to interview all the employees at the same time in a face-to-face situation but due to the ongoing pandemic, the interviews had to be done remotely. The notes were destroyed after the thesis was finished.

The interviews were structured in a way that the first four questions were all their own themes, and each theme was linked to one of the IQs. This was done to ensure that the data collected from the interviews could be analysed easier since the interviews were done chronologically with the IQs. The fifth theme had two questions that were meant to be general and not tied to the IQs directly. The aim of the fifth theme was to provide some additional information that tied together with the other themes to form solutions for the IQs. The fifth theme also provides extra information for the commissioning company.

The interview questions were formed from the suggestions that Company X gave for this research. The author received a list of research subjects related to the software replacement process that could be studied in this research. In addition, the IQs and interview questions were based on the provided subjects.

3.3   Data analysis

Thematic analysis was used to analyse the data gathered from the interviews. Thematic analysis is one of the methods available to analyse qualitative data. It is common to use thematic analysis when analysing data gathered from interviews. This is done to find themes from the interviews. These include patterns, ideas and topics that repeat themselves during the interview. (Caulfield 2019.)

When conducting thematic analysis there is two approaches to choose from: inductive and deductive. In an inductive approach, the information gathered from the interviews will form the themes, whereas in a deductive approach there are a set of themes that are formed from the theory or prior knowledge on the subject. These themes are set before conducting the data gathering. (Caulfield 2019.)

This thesis will use the deductive approach since the author of the thesis has knowledge and own experience on the research subject. This allowed the author to form the themes before conducting the interviews and link the questions with the themes beforehand. The data gathered from the interviews was analysed in Excel. Each theme was studied separately in Excel to locate keywords that are mentioned multiple times. The prior knowledge the author had on the research subject helped in choosing the important data from the information gathered. The interview answers are shown throughout chapter 4.

3.4   Reliability and validity

Reliability and validity are two areas that are used to evaluate research. They act as indicators on how effectively a test, technique or method measures in the research. Reliability is the consistency, whereas validity is the accuracy of the measure. (Middleton 2019.)

While conducting thematic analysis as the chosen data analysis method, reliability can be a concern since interpretation of the data occurred. This interpretation is used to define the data items that are used to conduct the thematic analysis (Guest, MacQueen & Namey 2012.).

The main concern when conducting these interviews was the reliability of the data, since it was analysed thematically. This left room for bias that could influence the results of the research. The reliability can however be easily tested, since the interviews can be reproduced as it is a structured interview. This would allow the verification of the data by a third party if needed.

Having to translate the interviews from Finnish to English can be problematic in terms of reliability of the research since the translation can cause the context to change. The author tried to keep the translations as close to the original version as possible.

4 Results

This chapter presents the results from the qualitative interviews that were conducted to six Company X's employees that were working on the software replacement process that the thesis is based on. The interview was split into five themes and each theme had one question that the employees were free to answer. The themes were formed to compliment the IQs of the thesis, in order to provide solutions and ideas for the thesis topic. The interview questions can be found from the appendices.

Listed below are the answers from the interviewees. All the answers were written down and presented as the interviewees gave the information out. No editing has been done to the answers and nothing has been left out. The answers were translated to English since the interviews were conducted in Finnish.

4.1 Theme 1 – Preparing for the replacement process

The first theme of the interview was tied to IQ 1. The interview question asked: "How would you improve the preparation for the replacement process from the viewpoint of the end-users and stakeholders?".

Interviewee 1

"It is important to have a clear conversation with the end-users before the software replacement starts and that the introduction to the new software should be sufficient for the lack of know-how to not cause unnecessary bottlenecks during the replacement. From the viewpoint of the end-users, there could have been better written instructions and it should have been made clearer what are the channels to reach out to when issues arise. From the viewpoint of other stakeholders, like suppliers, it is crucial that the replacement process does not cause big issues to them, for example, payments arriving late".

Interviewee 2

"I would prepone the announcement of the software replacement to the end-users and other stakeholders. There should be training material beforehand and there should be multiple well-trained end-users that have their own groups that they offer advice and help during the replacement process".

Interviewee 3

"Better flow of information in general, and more resources to assist end-users, especially at the start of the replacement process".

Interviewee 4

"Customer informed their end-users only before the replacement process started, which made it impossible to have enough time to prepare for the change. It would have been highly beneficial that they would have received training for the new software before the new software overtook the old one".

Interviewee 5

"I would have informed end-users about the software replacement beforehand. End-users should have received considerably more training for the new software. There should also have been more resources available from Company X's side since it is unrealistic to think that software replacement would not cause more work".

Interviewee 6

"We should have been informed earlier about the change. Now the announcement was done on a short notice".

Conclusion 1

To conclude theme 1 of the research: one of the things that was mentioned a lot during the interview was the fact that all parties included in the replacement process should have been informed earlier by the customer. The information about the Procure-To-Pay software being replaced by a new one came as a surprise to the outsourcing team as well as the end-users from the customer's side due to the short time to prepare.

This caused multiple issues because there was not enough preparation of the end-users. This led to issues piling up when the go-live happened. It correlated to the lack of resources, since the amount of end-user support required, was not foreseen. This was an issue that relates more to the customer's way of handling the process rather than lack of preparation from Company X's side. It is therefore a factor that cannot be fully resolved by Company X's actions.

The key takeaways from the first theme can be split into two key areas. More time to prepare for the upcoming replacement process as well as having more time to prepare the end-users in both parties - Company X and the customer.

4.2 Theme 2 – Sufficient resourcing

The second theme of the interview revolved around IQ 2 and the goal was to discover if there were enough resources available during the replacement process and how to better prepare in terms of resourcing. It is important to note that the resource in this question means human resources as in people working on the software replacement process.

The question was: "Did you feel like there was enough resources available before and after the replacement process? In which way would you change the resourcing?".

Interviewee 1

"*I think there was enough available resources from the customers and outsourcings side. Neither party was prepared for the sudden drop of automation caused by the software change*".

Interviewee 2

"*Originally there were enough resources before and after the replacement process. The problems came from the fact that the replacement of old processes did not work as expected, which led to more work and the need for resources*".

Interviewee 3

"*The go-live was in May, which caused the worst hurry to happen during the summer. I would change the resourcing in a way that there would be extra resources during the holidays*".

Interviewee 4

"*From time to time there was not enough resources and since the replacement was done just before summer it caused its own problems. More resources were acquired quickly. The employees were also "warned" beforehand that the replacement process will cause extra workload*".

Interviewee 5

"Before the replacement process started, there was enough resources, but the workload got bigger right around the start of the replacement. After the go-live there was a failure in resourcing which had an impact on work related well-being. There should have been more resources recruited from other teams or recruitment of new ones for the project. The customer should have been more forthcoming about things like overtime work so there would have been compensation for the extra hours".

Interviewee 6

"Company X had enough resources available because when needed we got in-house employees to help. There was an obvious lack of expertise since the software. Also, the customer was new to it".

Conclusion 2

To conclude theme 2: it must be noted that there was some variance in the answers provided by the interviewees. There was variance on the fact if there were enough resources available before and during the software replacement process. The variance can be partly explained by considering the fact that even though everyone worked within the replacement process, there were differences in the tasks that everyone was doing. For some it may seem that there were not enough resources available, whereas for the other half it seemed like there were enough resources available.

This implicates that there should have been better balance between the tasks that the employees were doing to have better utilisation of the resources available. The timing of the replacement process was also mentioned in several answers. The process started just before the summer holiday period which made proper resourcing hard. It was hard to prepare summer trainees to fulfil the role of a fulltime employee since the software was new for everyone.

The sudden drop in automation was also mentioned by few of the interviewees. The drop was something that Company X and the customer was not prepared for thus causing challenges since the invoice mass that had to be handled manually grew exponentially. This resulted in an unexpected amount of extra hours that had to be put into dealing with

the sudden growth of invoices that had to be processed manually. This had an undeniable correlation with the lack of available resources.

4.3   Theme 3 – Goals for the replacement process

Theme 3 of the interviews revolved around the goals for the replacement process and how clear the goals were to the employees working on the change. This part of the interview aimed to get answers for IQ 3.

The question presented to the employees was: "*Were the goals of the software replacement clear? Name some of the goals for the replacement*".

Interviewee 1

"The goals were not outlined in a detailed manner. Some of the goals were sticking to the SLA (service-level agreement) and the briefing of the customers end-users to the new software".

Interviewee 2

"From the viewpoint of Accounts payable the main goal was to move the old process to the new software with the added improvements that the new software brings".

Interviewee 3

"The goals were not clear. Apparently one of the big goals for the customer was to be more cost efficient".

Interviewee 4

"From what I recall, the goals were not discussed in a bigger manner before the replacement process. One of the goals must have been making the existing processes more efficient. Also, the processing of purchase orders has been one of the focus areas to improve on during the replacement".

Interviewee 5

"The goals were clear. The goals were a smooth software replacement which would result in only a slight delay on the processing of invoices also getting the level of automation up was one of the goals. Also, ensuring that Company X's and the customers end-users would learn the efficient use of the new software, was one of the goals".

Interviewee 6

"I think that the goals were not clear. One of the goals that I can remember is reaching the SLA during July. Which means that invoices would be processed as fast as in the older software".

Conclusion 3

Theme 3 discussed the goals for the software replacement process. It was clear that the main goals for the replacement were unclear for the employees working on the change. There was also some variance between the answers, this can be explained by the fact that all employees had tasks that had differences between them and therefore it can cause variance.

All of the interviewees named some of the goals that they knew and remembered. One of the goals mentioned was overall efficiency which includes cost, performance and automation. The interviewees also brought up the goals that were set for Company X, which were meeting the SLA, as well as the support and training of the end-users.

4.4   Theme 4 - Issues with the software

Theme 4 was related to IQ 4 and the goal was to gather information to formulate an answer for the IQ.

The question was: "*Were the issues that appeared during the software replacement dealt with efficiently?*".

Interviewee 1

"Issues were gathered by all of the end-users and the project leaders made sure that the information reached the right parties in order to be resolved. I feel like during this software replacement issues were dealt with efficiently".

Interviewee 2

"Issues were brought up efficiently but especially at the start of the software replacement process it took a long time to get the issues fixed and there are still some issues that have existed from the start and are yet to be fixed".

Interviewee 3

"The issues were brought up efficiently but finding the root cause and fixing them often took a long time".

Interviewee 4

"I think that the issues were brought up efficiently. Outsourcing did their part but there were issues from time to time with the customer advance with the issue and come up with a fix".

Interviewee 5

"The issues were not handled efficiently, partly due to the fact that the software replacement took place during summer vacation period".

Interviewee 6

"During the first week of the software replacement we could contact a consultant that worked for the software provider. After this we have had to contact the customer who then contacts the software provider. This still hinders the process".

Conclusion 4

Theme 4 provided information on how the different issues were dealt with during the replacement process. Majority of the interviewees answered that the issues during the process were brought up efficiently. However, there was delays on the resolutions for the issues. The main hinderance was that after the issues were first brought up to the customer, they then forwarded the information to the software provider.

This chain of command made it harder for Company X to stay up-to-date with the latest information on how the issues were dealt with and what was the estimation on when the

issues would be fixed or addressed in some other way. It was also brought up in one of the interviews that the timing of the replacement process made it so that the people working on the fixes were on holidays which further delayed the resolutions for the issues.

4.5 Theme 5 – Additional information

Theme 5 combines two questions that deal with the effect of outsourcing during the software replacement and the biggest issues during the replacement process, according to the experts working on the replacement.

The first question of theme 5 was: "*How did outsourcing affect the execution of the software replacement?*".

Interviewee 1
"Outsourcing took care of the introduction of the software for the end-users. The roles changed depending on the responsibilities of everyone; the leaders of the change were actively involved with the customer and took part in the testing of the new software. Other employees working on outsourcing took care of cleaning the last invoices from the old Procure-to-Pay software and took active part in the user support for the customers end-users".

Interviewee 2
"Outsourcing took a part in the testing of the new software and as a support for the customer. Outsourcing also played a huge part from the customers point of view as they took care of organising the replacement, reforming the processes and the training of the end-users etc. This way the customers could focus their resources to other areas during the replacement process*.

Interviewee 3
"Outsourcing tested the software and after go-live reported the possible problems to the customer. Outsourcing also handled the user support at the start of the replacement process".

Interviewee 4
"Outsourcing had a major role during the replacement process as the training and support of ends-users was solely outsourcings duty at the start. Outsourcing has also played a big part during the start of the replacement process and the times after that ensuring that the process operates smoothly, and improvements are being advanced".

Interviewee 5

"Communication with the customer was challenging at times. Issues would have been fixed earlier without the addition of outsourcing".

Interviewee 6

"Customer sat on the driver's seat and our hands were tied".

Theme 5 – Second question

The second question of theme 5 was: *"What were the biggest issues during the replacement process?".*

Interviewee 1

"The sudden crash of automation levels which caused a sudden lack of resources".

Interviewee 2

"The testing of the new software was a very short-lived which reflected to the go-live as issues that we were unaware of beforehand, there was also direct deficiencies in the system. In addition, the switch was made to the software providers standard product, where the processes customised to the former system no longer functioned as expected".

Interviewee 3

"Schedule and resources.*

Interviewee 4

"The biggest problem was that the level of automation dropped significantly from what it was in the older Procure-to-Pay software. The customer may not have been fully aware how much manual handling would have to be done due to the drop in the automation levels. There was also more issues and errors than was originally expected".

Interviewee 5

"Lack of preparation and being overly optimistic about the replacement process. Also having the replacement process happen during the summer holiday season was very problematic".

Interviewee 6

"A drop in the automation levels which still has an effect. Also, the fact that the customers end-users did not know how to use the software at all, and we acted as support for them for the first months, even though the workload was big to begin with".

Theme 5 conclusion

Theme 5 included two questions. The first question had to do with the impact that outsourcing had for the replacement process from Company X's perspective. The phrasing of the question caused the answers to be somewhat different, since the interviewees interpreted the question in different ways. Most of the interviewees talked about the role of the outsourcing team during the replacement process. The outsourcing team played a vital role during the process. Outsourcing had great responsibility during the process. This enabled the customer to reduce resources on the project compared to the amount they would have needed without the outsourcing. The key areas mentioned during the interviews that Company X contributed towards was the support and training of end-users as well as having a key part in the development of the new software.

Some of the interviewees understood the question as "how did the fact that Company X was outsourced influence the replacement process". From these answers it was clear that being outsourced brings challenges, since you are working for the customer and you are not in charge of the on-going change on this replacement process. It can be argued that being outsourced brings issues that are not present if the process would be done fully in-house by the customer.

The second question of theme 5 asked the interviewees their opinion about what the biggest issues during the replacement process were. It became obvious from the interviews that the most troublesome issues during the replacement process were the sudden decrease in automation and the lack of preparation which can be seen in areas like resourcing and the lack of training for the end-users. These issues can be also tied together since the decrease in automation was one of the main causes for the lack of resources.

5 Conclusions

This chapter will go through the key findings of this research. Based on the findings, recommendations were given for Company X. The chapter will discuss recommendations for further research on the research subject. Lastly, reliability and validity as well as the authors reflection on the research process are discussed.

5.1 Key findings

The investigative question one asked; **how to ensure that the end-users and other stakeholders are prepared for the replacement of the software.** This topic was discussed in the interviews and it was studied in the theoretical part. It became obvious that the key area enabling improvement in this area is having more time. This applies to preparing end-users as well as having more time in general. This additional time can be used for proper planning of the change which then leads to better execution of the process. Also, having multiple different ways of teaching the end-users for the use of the new software is important as it is more engaging for the users. This can keep the end-users more motivated to learn the usage of the new software.

Investigative question two's goal was finding out **how to make sure that the are enough resources available before and after the replacement process.** The research found out that change management was one of the key areas to resolve this issue. Having a proper CM plan helps in being more ready for a changing environment like software replacement process. The timing of the change plays a huge part when talking about sufficient resourcing. If the change is done near or during busy seasons, for example, holiday seasons, it will make resourcing harder. CM should also consider the fact that unexpected events can happen. During this replacement process the automation dropped unexpectedly which resulted in a lack of resources.

Third investigative question of this research aimed to figure **out if the goals for the replacement process were clear for the employees working on it.** The answers had some variance which is most likely caused by all the interviewees having slightly different tasks. Having a clear idea of the goals helps the employees to work towards those goals.

Having clear goals makes it easier to intervene when noticed that the process has sidetracked from the goal.

The last investigative question asked **were the issues with the software acknowledged and dealt with in a timely manner.** Most interviewees agreed that issues were brought up to the customer in an efficient matter. Due to the chain of command and the timing of the change, the resolutions took some time. There definitely was hinderance on the resolving of some of the issues regarding the new software.

The interviews also gave information on **how outsourcing affected the replacement process**. It was agreed in the interviews that outsourcing had a big responsibility in this process. This allowed the customer to focus more of their resources to other tasks. Another extra question was asked regarding **the biggest issues during the replacement process**. The lack of preparation and the sudden drop in automation were the biggest issues during the replacement process.

5.2 Recommendations for Company X

There are many key focus areas in replacement processes like the one studied in this research. CM is the building block of process like this, and it greatly helps in preparing for the replacement process. Being outsourced means that Company X cannot affect the whole outcome of the process, since the customer is in charge. Customer cannot be forced to do things in a certain way, but recommendations should be given.

Company X should consider the fact that surprises can happen, like the automation drop in this specific case. Considering and preparing for surprise changes helps Company X to react in these situations. This helps in keeping up with the promised service provision and the SLA. Making sure that all of Company X's employees know the target and goals of the replacement process is an easy and efficient way of making the process smoother. It can also make the employee feel more tied to the process, which is a positive. This usually results in more efficiency.

The issues mentioned in chapter 2.7 should also be taken into consideration when taking part in similar processes in the future. Outsourcing is an obvious limitation and some of these areas cannot simply be influenced because of it. Regardless, these issues should be better prepared for if they happen during a similar process. Areas mentioned in chapter 2.6.2 are also to be thought about when taking a part in outsourcing projects, which are what Company X does.

The key focus areas for Company X should be: CM, end-user preparation, organisational differences and awareness during projects like this. The author will underline the fact that outsourcing is limiting Company X in some cases. However, thorough preparation benefits Company X, which then can benefit the customer and other stakeholders.

Company X liked the outcome of the research. The information acquired from the research was useful for the commissioning company.

5.3 Recommendations for further research

The authors recommendations for further research in this topic would be expanding the research scope. The research could be conducted on multiple similar software replacement processes. This would allow for more broad data. This data would allow to limit out the issues that are strictly tied to things like a specific software or customer. This would allow for more general data that can be helpful in wider amount of implementation projects.

Interviewing more people from different companies and backgrounds would make the data more valid. This combined with the study of multiple cases would give a better understanding of this phenomenon.

5.4 Reliability and validity

For the information provided in this thesis, the author interviewed Company X's employees. These interviewees worked with the replacement process specific to the research. While giving their answer, the interviewees knew that they would be anonymous which removes the possible bias from their answers. The author of the thesis worked in the project as well, which gave him critical information on the replacement process. This information is not available to anyone not apart of the project. This made it easier to separate the acquired information into relevant and non-relevant for the research. It also enabled the evaluation of the credibility of the interviews. These factors add to the reliability and validity of the research.

Having the same interview questions for all the interviewees ensures that the answers acquired through the interviews can be analysed. The interview can easily be replicated if necessary, in order to ensure the acquired information. Each of the investigative questions were divided into their own themes during the interviews. This made it easier for the

author to find the key points from each theme which then formed the solutions for the investigative questions.

The research was conducted on a single software replacement process that was done for a single customer. Thus, only one Procure-to-Pay software has been considered while conducting the research. This adds elements to the research and the data gathered. This data could be different if the replacement process was done to a different customer or a different software was being used. Therefore, this thesis should not be seen as a best practice guide for all software implementation cases, rather it should be viewed as a research that gives the commissioning company information on one of their bigger software replacement processes. The information gained from this research can be used to get to know some of the key areas that should be taken into consideration when planning a software replacement.

5.5   Reflection on learning

The author learned a considerable amount during the process of making the thesis. Learning how to build a thesis and all the details that must be taken into consideration while making such research has served as a big learning curve. Throughout the whole thesis process the author has worked full-time for the commissioning company which taught more than any earlier workplaces. The work put the thesis on a hold for a long time, since learning and working in the replacement process studied in this research took a toll on the author. The will to succeed in the job and the eager to take on new tasks outshined the making of the thesis for a long time.

The outbreak of Covid-19 also played a big part on the making of the thesis. It has proven to be mentally challenging for the author. It has been an issue throughout the whole research process the pandemic has changed the way we operate as human beings. Not having a proper social life due to the outbreak has made it harder to mentally reset and the stress has been building up which reflects directly on the thesis. Covid-19 has also made it hard or impossible to acquire literature outside of the internet. the author was required to use multiple internet sources. This formed an increase in the concern of the validity of the information compared to that of hardcover books. However, the author had acquired experience in the field, which compensated to the shortage of sources.

The author acknowledged that even before the beginning of the thesis time management would be an issue. The author has always procrastinated which has made him complete tasks when there is just a feasible amount of time remaining. This combined with full-time

work and the world being shaken by an outbreak, made the process of completing the thesis harder than it would have been without these factors.

Even though lacking the motivation needed and poor time management, the author appreciates everything related to the thesis process. The making of this thesis and all the work-related tasks that have been done during the thesis, for the thesis, have been a huge learning curve that is valuable for the authors future.

References

Aho, A., Annala, T., Huhtala, O-P., Jutila, J. 2018. Taloushallinnon automaatio muuttaa toimintatavat ja työnkuvat. Tilisanomat. URL: https://tilisanomat.fi/teknologia/taloushallinnon-automaatio-2. Accessed: 11 April 2021.

AXELOS. 2017. IT Change Management. TSO. Norwich.

Beaubouef, G. 2009. Maximize Your Investment 10 Key Strategies for Effective Packaged Software Implementations: Accelerate Packaged (COTS) Software Implementations, Increase Returns on Investment, and Reduce Implementation Costs and Customization. Packt Publishing. Birginham.

Bethune, J. 2013. 10 Change Management Keys to Effective Software Implementation. 24x7. URL: https://24x7mag.com/medical-equipment/software/it-integration/10-change-management-keys-to-effective-software-implementation/. Accessed: 29 February 2021.

Bhandari, P. 2020. An introduction to quantitative research. Scribbr. URL: https://www.scribbr.com/methodology/quantitative-research/. Accessed 4 April 2021.

Bhandari, P. 2020. An introduction to qualitative research. Scribbr. URL: https://www.scribbr.com/methodology/qualitative-research/. Accessed: 4 April 2021.

Bhat, A. Qualitative Research: Definition, Types, Methods and Examples. URL: https://www.questionpro.com/blog/qualitative-research-methods/. Accessed: 18 May 2020.

Basware s.a. Procure-to-Pay Process. URL: https://www.basware.com/en-en/solutions/procure-to-pay/procure-to-pay-process/. Accessed: 14 April 2021.
Moran, M. 2020. What is an e-invoice? Pagero. URL: https://www.pagero.fi/blog/what-is-an-e-invoice/. Accessed: 18 March 2021.

Beulen, E., Ribbers, P., Roos, J. 2011. Managing IT Outsourcing. Taylor & Francis Group. Oxfordshire.

Buckner, B. 2016. Organizational Change: Timing is Everything! HR Gazette. URL: https://hr-gazette.com/organizational-change-timing-everything/. Accessed: 21 March 2021.

Caulfield, J. 2020. How to do thematic analysis. Scribbr. URL:
https://www.scribbr.com/methodology/thematic-analysis/. Accessed: 3 April 2021.

Clochet, A. 2020. Why automation your P2P process is no longer an option. Process
Excellence Network. URL:
https://www.processexcellencenetwork.com/innovation/articles/why-automating-your-p2p-
process-is-no-longer-an-option. Accessed 11 March 2021.

Deloitte s.a. Your guide to a successful ERP journey. URL:
https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/human-capital/ca-en-
human-capital-your-guide-to-successful-erp-journey.pdf. Accessed 20 April 2021.

Efima 2020. Outsourcing. URL: https://www.efima.com/en/financial-
management/outsourcing/. Accessed: 16 May 2020.

European Commission s.a. eInvoicing. URL: https://ec.europa.eu/growth/single-
market/public-procurement/digital/einvoicing_en. Accessed: 9 April 2021

Explorable 2020. Empirical Research. URL: https://explorable.com/empirical-research.
Accessed: 19 May 2020.

Finago 2020. Electronic Financial management – shared software for businesses and
accounting offices. URL: https://finago.com/en/financials/electronic/. Accessed: 16 May
2020.

Finago 2020. For companies- all tools for financial management in a single package. URL:
https://finago.com/en/companies/. Accessed: 16 May 2020.

Finago 2020. What is Electronic financial management? URL:
https://finago.com/en/support/frequently-asked-questions/electronic-financial-
management/. Accessed: 18 May 2020.

Finder. 2021. Efima Oy. URL: https://www.finder.fi/IT-konsultointi+IT-
palvelut/Efima+Oy/Helsinki/yhteystiedot/2097521. Accessed: 11 February 2021.

Gabris, C. 2020. Change Management Can Make OR Break An ERP Implementation.
URL: https://www.archerpoint.com/blog/Posts/effective-change-management-key-
successful-erp-implementation. Accessed: 17 April 2021.

Kalkinemedia. 2020. Business Process Outsourcing (BPO). URL:
https://kalkinemedia.com/definition/b/business-process-outsourcing-bpo. Accessed: 18
April 2021.

Guest, G., MacQueen, K., Namey, E. 2012. Applied thematic analysis. SAGE
Publications. Thousand Oak.

Harland, B. s.a. How to Do a Quantitative Research Questionnaire. URL:
https://sciencing.com/how-to-do-a-quantitative-research-questionnaire-12748929.html.
Accessed: 14 March 2021.

ISBF 2020. What is the importance of Financial Management? URL:
https://www.lsbf.org.uk/blog/news/importance-of-financial-management/117410.
Accessed: 19 May 2020.

Kaarlejärvi, S., Salminen, T. 2018. Älykäs taloushallinto, Automaation aika. Alma Talent.
Helsinki.

Kinnunen, H. 2018. Taloushallinnon ulkoistaminen ulkoistaa myös riskit. Visma. URL:
https://www.visma.fi/blog/taloushallinnon-ulkoistaminen-ulkoistaa-myos-riskit/. Accessed:
14 February 2021.

Kissflow s.a. The Ultimate Guide to a Truly Effective Procure-to-Pay Process. URL:
https://kissflow.com/procurement/procure-to-pay-process-guide/. Accessed: 12 March
2021.

Kissflow s.a. How to Make Invoice Approval a Breeze? URL:
https://kissflow.com/procurement/purchase-invoices/invoice-approval/. Accessed: 9 April
2021.

Koch, B. 2017. E-Invoicing / E-Billing. Billentis. Wil. URL:
https://billentis.com/einvoicing_ebilling_market_report_2017.pdf. Accessed: 27 March
2021.

Lamond, D. 2020. Is Spend Management software the new procure to pay software?
Airbase. URL: https://www.airbase.com/blog/procure-to-pay-software. Accessed: 14
March 2021.

Linder, J. 2004. Outsourcing for Radical Change: A Bold Approach to Enterprise Transformation. AMACOM. Saranac Lake.

McLeod, S. 2014. The Interview Rsearch Method. Simply Psychology. URL: https://www.simplypsychology.org/interviews.html. Accessed: 7 April 2021.

Middleton, F. 2019. Reliability vs validity: what's the difference? Scribbr. URL: https://www.scribbr.com/methodology/reliability-vs-validity/. Accessed: 3 April 2021.

O'Brien, B. 2017. The 5 stages of P2P Automation. Softco. URL: https://softco.com/blog/5-stages-p2p-automation/. Accessed: 8 April 2021.

Paramasivan, C. 2009. Financial Management, New Age International Ltd. Daryaganj.

Pearse, G. 2019. Procure-to-Pay Automation: Why Getting Others to Embrace it can be the Biggest Challenge. Softco. URL: https://softco.com/blog/barriers-to-procure-to-pay-automation/. Accessed: 7 April 2021.

Power, M., Bonifazi, C., Desouza, K. 2006. The Outsourcing Handbook: How to Implement a Succesful Outsourcing Process. Kogan Page Ltd. London.
Robison, H. 2015. 3 Common Issues When Implementing New Business Software. URL: https://tech.co/news/3-common-issues-implementing-business-software-2015-08. Accessed: 16 May 2020.

Prosci 2020. What is Change Management and How Does it Work? URL: https://www.prosci.com/resources/articles/the-what-why-and-how-of-change-management. Accessed: 18 May 2020.

Qad s.a. What is ERP? (Enterprise Resource Planning). URL: https://www.qad.com/what-is-erp. Accessed: 22 April 2021.

Questionpro s.a. 5 Steps for Creating a Qualitative study. URL: https://www.questionpro.com/blog/creating-qualitative-study/. Accessed: 5 April 2021
Schmidt, T. 2019. Digital purchase-to-pay – accelerate processes in procurement management. Easy Software. URL: https://easy-software.com/en/newsroom/digital-purchase-to-pay-accelerate-processes-in-procurement-management/. Accessed: 11 March 2021.

Quinn, J., Hilmer, F. 1994. Strategic Outsourcing. MIT Sloan, 35, 4. URL: https://sloanreview.mit.edu/article/strategic-outsourcing/. Accessed: 17 January 2021

Robinson, H. 2015. 3 Common Issues When Implementing New Business Software. Tech Co. URL: https://tech.co/news/3-common-issues-implementing-business-software-2015-08. Accessed: 16 April 2021.

Sardana, A. 2019. Top 5 Outsourcing Challenges and how to Overcome Them. Classic Informatics. URL: https://www.classicinformatics.com/blog/top-5-outsourcing-challenges-and-how-to-overcome-them. Accessed: 10 April 2021.

Schroeder, T. 2019. 9 common mistakes companies make when implementing management systems. Soft Expert. URL: https://blog.softexpert.com/en/9-common-mistakes-implementing-management-systems/. Accessed: 21 April 2021.

Sievo s.a. AI in Procurement. URL: https://sievo.com/resources/ai-in-procurement#procurement-ai-software. Accessed: 4 April 2021

Sirkin, H., Keenan, P., Jackson, A. 2005. The Hard Side of Change Management. Harvard Business Review. URL: https://hbr.org/2005/10/the-hard-side-of-change-management. Accessed: 15 April 2021.

Staley, J. s.a. Can You Complete ERP Projects On Time and On Budget?. URL: https://blog.datixinc.com/blog/erp-implementation-time-budget. Accessed 12 April 2021.

Suomela, S. 2016. Sähköinen vs. digitaalinen taloushallinto. Emce. URL: https://www.emce.fi/blog/sahkoinen-vs-digitaalinen-taloushallinto/. Accessed 14 March 2021.

Taylor, A. 2018. What is Purchase-to-Pay and why would you automate? URL: https://www.basware.com/en-gb/blog/february-2018/what-is-purchase-to-pay-and-why-would-you-automate/. Accessed: 18 May 2020.

Taylor, P. 2017. Why Change Management Doesn't Change Anything. Medium. URL: https://medium.com/experiments-in-working-out-loud/why-change-management-doesnt-change-anything-2f7b70d2a199. Accessed 11 April 2021.

Tompkinson, P. 2019. What is Procure to Pay? A P2P Guide. I2B. URL: https://www.i2b-online.com/what-is-procure-to-pay/. Accessed: 15 March 2021.

Topdesk s.a. What is IT Change Management? URL:
https://www.topdesk.com/en/glossary/what-is-it-change-management/. Accessed: 16
March 2021.

Uzialko, A. 2019. What is B2B? URL: https://www.businessnewsdaily.com/5000-what-is-b2b.html. Accessed: 22 May 2020.

Visma s.a. 6-Step-Guide to Electronic Financial Administration. URL:
https://www.visma.net/globalassets/global/visma.net/0414_vn_guide_paperless_process_
en_final.pdf. Accessed: 3 March 2021.

Wallace, K. 1998. Avoid the 10 Major Pitfalls of Outsourcing. Workforce. URL:
https://www.workforce.com/news/avoid-the-10-major-pitfalls-of-outsourcing. Accessed: 12
April 2021.

Appendices

Appendix 1. Interview questions

1. Miten parantaisit valmistautumista vaihdokseen loppukäyttäjien ja muiden sidosryhmien näkökulmasta?

2. Koitko, että resurssointi oli riittävää ennen ja jälkeen vaihdoksen? Millä tavalla muuttaisit sitä?

3. Olivatko järjestelmävaihdoksen tavoitteet selkeät? Nimeä vaihdoksen aikaisia tavoitteita.

4. Puututtiinko järjestelmävaihdoksen aikana ilmenneisiin ongelmiin tehokkaasti?

5. Miten ulkoistus vaikutti järjestelmävaihdoksen toteutukseen?

6. Mitkä olivat suurimmat ongelmat järjestelmänvaihdoksessa?

Appendix 2. Overlay matrix

Investigate questions	Theoretical framework	Research Methods	Results
IQ1. How to ensure that the end-users and other stakeholders are prepared for the replacement of the software?	Issues with outsourcing, IT change management	Qualitative interviews with Company X's employees.	Chapters 4.1 & 5.1
IQ2. How to make sure that there are enough resources available before and after the replacement process?	IT change management, common issues when implementing a new software	See above. Desktop research	Chapters 4.2 & 5.1
IQ3. Were the goals for the replacement process clear for the employees working on it?	Issues with outsourcing, change management, IT change management	See above.	Chapters 4.3 & 5.1
IQ4. Were the issues with the software acknowledged and dealt with in a timely manner?	See above.	See above.	Chapters 4.4 & 5.1