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BEST PRACTICES IN ESOURCING IMPLEMENTATION PROCESS

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ABSTRACT

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The purpose of this research is to identify best practices in electronic sourcing implementation process from private organizations. By identifying the best practices, this thesis aims to create concrete recommendations for the commissioner company for replicating the best practices during their own adoption project. Moreover, this research aims to find out, which are the general success factors and common pitfalls of electronic sourcing implementation projects and what benefits can be gained by utilizing digital eSourcing tools. The study focuses on the user companies of one specific electronic sourcing system and examines tools such as eRFxs and eAuctions, which are used during the tendering process in strategic sourcing. The study is qualitative and it utilizes methods such as interviewing and observing from the case- and action-study approaches.

By digitalizing a tendering process, several benefits such as efficiency, transparency, better data utilization, time-savings and coherent practices, can be achieved. Successful adoption of a eSourcing system is effected by several factors besides the right selection of the software itself. The results show that organizational aspects such as internal communication to employees, management of change, internal training and support, enhancement of employees' own realization of the benefits of using electronic sourcing tools, sharing best practices within the organization and showcasing successful cases, are very important for a successful adoption of electronic sourcing systems into organizations. eSourcing tools can be utilized well to all types of purchases but truly benefitting from the usage of the tools, requires finding new ways to work and think outside the box mentality.

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Tämän tutkielman tarkoitus on tunnistaa sähköisen hankintajärjestelmän käyttöönotto-prosessin parhaita käytäntöjä muilta yrityksiltä, jotta näitä käytäntöjä voidaan hyödyntää toimeksiantajayrityksen käyttöönotto-projektin aikana. Lisäksi tämän tutkielman tavoite on selvittää, mitkä ovat yleisiä tekijöitä, jotka vaikuttavat e-hankintajärjestelmän onnistuneeseen käyttöönottoon ja mitä hyötyjä e-hankintajärjestelmän käytöstä on. Tutkielmassa tarkastellaan tietyn sähköisen hankintajärjestelmän käyttäjä-yrityksiä ja paneudutaan eritoten kilpailutuksissa käytettäviin digitaalisiin hankintatyökaluihin kuten e-tarjouspyyntöihin ja käänteisiin huutokauppoihin. Tutkimus on kvalitatiivinen ja siinä on käytetty tapaus- ja toimintatutkimukseen kuuluvia tutkimusmetodeita, kuten haastatteluita sekä havainnointia.

Kilpailutusprosessin digitalisoinnin hyötyjä ovat esimerkiksi tehokkuuden ja läpinäkyvyyden lisääntyminen, datan parempi hyödyntäminen, aikasäästöt sekä yhtenäiset toimintatavat ja prosessit. Onnistuneeseen e-hankintajärjestelmän käyttöönottoon vaikuttaa itse järjestelmän valinnan lisäksi monet muut tärkeät tekijät. Tutkimuksen tulokset osoittavat, että viestintä, muutos- ja projektijohtaminen, sisäiset koulutukset, onnistuneiden esimerkkitapausten esittely ja parhaiten käytäntöjen jako järjestelmän käyttöön liityen, ovat tärkeitä tekijöitä järjestelmän onnistuneen käyttöönoton kannalta. Digitaalisia hankintatyökaluja voidaan käyttää kaikenlaisissa kilpailutuksissa, mutta jotta työkalujen käytöstä voidaan todella saada suuria hyötyjä, tulee käyttäjien löytää innovatiivisia ja tehokkaampia työskentely- ja toimintatapoja.

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In Helsinki, 9th of January 2017

Sointu Lampinen

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

There is nothing permanent except change

Continuous change and development are very common phenomenon in the organizations of today. Although, different types of change projects are frequently launched, the change still requires a lot of effort, resources and management from the organizations especially in order to truly succeed in the change process. Nowadays it is very common that organizations are digitalizing their supply chain management related processes. Digitalization and the ever-developing information technologies and systems enable organizations to communicate and trade both with their customers and their suppliers faster, more often, efficiently and on a larger scale (Van Weele 2002, 170). Businesses of today tend to focus in aggregating their purchase power and reducing spend with external suppliers to increase both profits and stock value. In order to get more detailed information about the different spend categories, create efficient and standardized purchasing processes and have cohesive contract and supply base management in place, many businesses have adopted different types of electronic systems to better understand and analyze spend and additionally to make the tendering processes cohesive. Different electronic tools can enhance the productivity and contribution to value creation of the procurement professionals. (Smart 2010, 181-182) The primary strategic objectives, why organizations implement upstream electronic business activities in the supply chain is the overall management and integration of the entire supply chain, price pressure and cost reduction, knowledge development and learning, information flow control, management of global suppliers, development of cohesive procurement practices and lead time management (Croom 2005, 60).

The current trend in procurement is to heavily invest in digital technologies and by doing so, aim to shorter cycle times and to have the overall supply chain performance more transparent and efficient. In many of the back offices, a rapid development of automating different procure to pay processes have occurred, and thus organizations have been able to free resources into more value adding activities. Organizations are now investing in procurement

technologies such as spend visibility, eSourcing, contract management and requisition to pay. Most of these technologies originally emerged in the 1990s but since then have developed substantially making those easier to adopt, use and benefit from. (Deloitte 2016, 4, 13) The growth of electronic sourcing usage over the past years is caused by several internal and external forces including the ability for buyers and suppliers to communicate economically in real-time and worldwide through the Internet and continuously developing robust, user-friendly and Internet-based software systems that is run by the buyer company with little or no assistance from outside. (CAPS 2003, 7) There is enormous variety of electronic technologies and applications that can be utilized in the field of supply chain. The technologies are used by manufacturers, suppliers and retailers alike and range from simple automation of long standing business practices to very complex real-time linkages. However, electronic sourcing is seen as one form of digital business, which is a critical element in building and maintaining competitiveness both for manufacturing and service companies. (Johnson & Klassen 2005, 7)

Electronic sourcing system enables streamlining of the procurement processes. By means of eSourcing for example non-value-adding clerical tasks, bureaucratic authorization processes and excessive documentation can be minimized and replaced by source data capture, integrated transaction processing, real-time systems and document management. Electronic sourcing processes are able to support networking and also reduce non-value-adding activities. (Lysons & Farrington 2006, 158-159, 184) Electronic sourcing tools help strategic sourcing professionals in making comparisons between suppliers about costs and performance accurately and in real time and simultaneously leaving an audit trail. Electronic sourcing tools provide clear data of costs and performance of suppliers and thus support the decision making of the sourcing managers and allow companies to really understand and analyze which sourcing options are the most effective. Electronic sourcing tools provide valuable information about internal spending and free up sourcing personnel’s time. (Neef 2001, 55) If used correctly, different types of electronic tools enable sourcing managers to focus more on the important tasks such as supplier relationship management, sourcing strategy development and negotiations, which require much more time and effort, and are seen as value adding activities.

Even tough, some forms of electronic sourcing and procurement systems have existed already for almost two decades, many organizations have still been slow in the adoption of different electronic tools. Now after the initial hype, the common trend in procurement is once again aim to modernize the processes and thus many organizations are broadening the usage of the eSourcing systems. The digitalization era is one fundamental driver behind the need for companies to evolve continuously. Despite the existing broad variety of different electronic sourcing tools, the adoption of the systems has proven to be both a success and a failure in many organizations. Most of the times electronic systems and tools are implemented in the organizations, but in many cases the usage and naturally the benefits gained, fall short from the expected. This is mostly due because of the unsuccessful implementation projects and employees' resistance to change, which have not been managed in proper ways.

In order to succeed in the adoption of eSourcing system, preparations for successful implementation project needs to be carried out in proper manner. It is important to understand and analyze which are the most important factors that influence to the process of electronic procurement adoption within the organization. (Pop Sitar 2011, 380) In addition to carefully deciding on the correct eSourcing system itself and understanding the factors influencing the implementation success, thorough change management is needed and implementation of electronic systems to an organization requires learning lessons from the forerunners of other digital business implementers'. By applying best practices and minimizing risk factors it is possible to successfully and proactively manage change and implement the sourcing system in the most successful way possible. (Chaffey 2015, 469) This thesis aims to study the best practices of electronic sourcing system implementation from other businesses and by doing so, minimize the challenges of the ongoing implementation project in the case company and manage the change in best possible way.

1.1 Background and objectives

This Master's Thesis is conducted as a commission to a Finnish company, which had a need to study best practices of electronic sourcing implementation process and the use of the specific eSourcing system by benchmarking the implementation of the system from other

Finnish companies. Furthermore, this research aims to find out, which are the general success factors and common pitfalls of eSourcing implementation projects by conduction a case study and interviewing other companies which are using the same eSourcing system. The target of this study is to get a deeper understanding of what are the benefits of using the eSourcing system, to which purposes it is mainly used and how was other companies' adoption projects carried out. The aim is also to benchmark the most important learnings and critical challenges that other companies faced during the implementation process and the initial usage. Figure 1 below portraits the ultimate goal for this study, which is to help the commissioner to succeed in the implementation project by conducting this study.

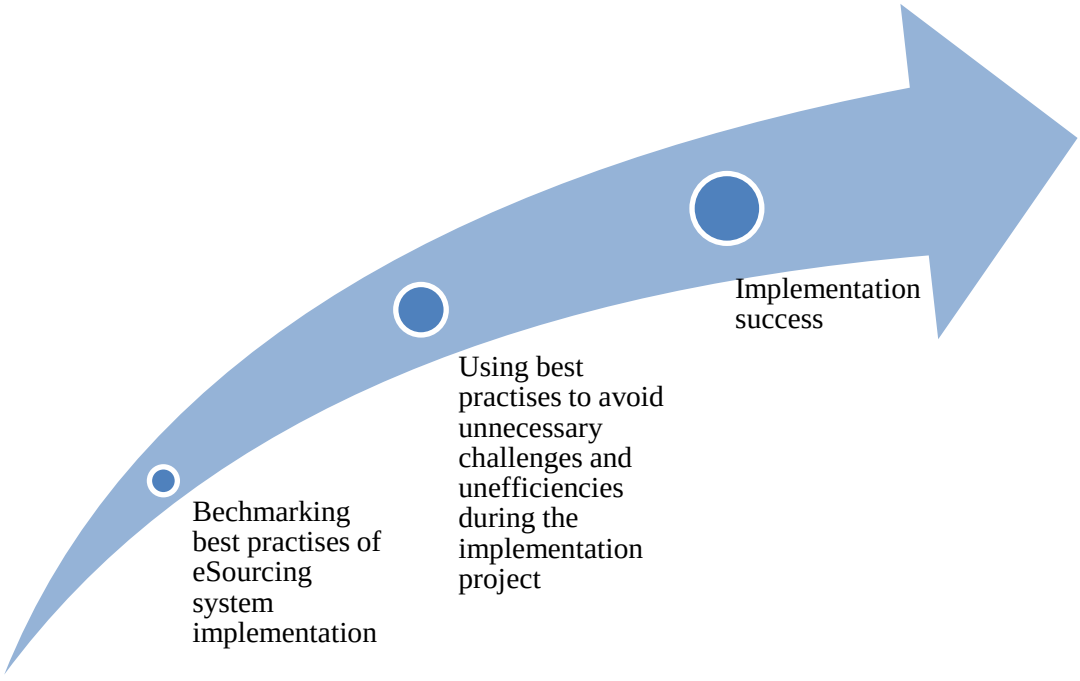

Figure 1. The ultimate aim of the study.

The commissioner, later preferred also as Company X, is a Finnish manufacturing company, which operates globally in over 40 different countries serving several different industrial sectors with products and expertise provided to over 100 countries worldwide. The business of the commissioner is very supply chain intensive and thus sourcing and supply chain planning functions have an very important and strategic role within the company. There are thousands of suppliers globally. Company X has a centralized sourcing unit, which consists of 50 employees working across three continents. The sourcing unit is responsible for strategic sourcing and main tasks are related to supplier relationship management and

strategic spend management. The main task of the sourcing unit is identification and selection of suppliers, negotiation and contract management as well as the management and development of supplier relationships. The main target of the strategic sourcing unit is to achieve sustainable cost reductions, have long-term supply stability and to minimize supply risks. Company X has a separate operational purchasing unit, which is responsible for the daily purchasing tasks such as creation of purchase orders and follow-up, collecting and implementing all price data as well as distribution replenishment planning where it is determined which goods are needed at which location in what quantity.

Company X is targeting to enhance its process efficiency across many different functions. This study is conducted based on the initiative of the commissioner company's global sourcing unit. Company X has decided to start using the electronic sourcing system in order to gain efficiency, time and cost savings across the global sourcing function. In addition, Company X is looking to make more cohesive sourcing processes and make sharing of data more visible and transparent within the company. This research started when the eSourcing system implementation project was in the piloting phase and followed the implementation process until the system was in use.

The result of the research will provide assistance for the Company X in the adoption process of the electronic sourcing system and by conducting this research the Company X will be able to use common success factors, that were identified through the interviews and the literature, during the implementation and aim to minimize the most common challenges occurring while adopting the electronic sourcing system. The benchmarked success factors will also provide support for the internal communication about the changes and thus hopefully effect positively to the internal buy-in. In addition, the target for the commissioner is to avoid unnecessary mistakes during the implementation process and thus make the process more efficient and also to utilize the knowledge of the other businesses, who have already gone through the change and adopted the eSourcing system.

Moreover, the study is also relevant to the overall situation in Finland since many organizations have again been starting to adopt electronic systems in their purchasing processes after the initial hype of a decade ago. Further research was needed to be made in order to get a broad understanding of the electronic sourcing usage situation in the

organizations of today. This study can be also used as benchmark or source of information for an organization which is looking into the benefits and challenges of adopting electronic sourcing system. This study provides both references from the literature and real-life case examples about the benefits and common challenges in implementation projects and presents insights of general change management practices related to digitalization of sourcing processes. There might be also useful information provided for businesses that do not yet have a very mature implementation of the system or are still in the middle of the implementation process. This thesis could also provide help for organizations that are struggling to gain the benefits from the implementation of eSourcing systems since through this study they are able to benchmark what other business have done in order to be successful in the usage of the systems.

1.2 Research problem and focus

The research problem is generated from the need of the commissioner company to get references and benchmarks from other companies in order to succeed in their own electronic sourcing tool implementation project. The target is to eliminate the identified challenges in the adoption process of the eSourcing system and aim to repeat the best practices that have been benchmarked from the other companies. The ultimate target is to have a proficient and beneficial eSourcing system implementation process that will lead to enhanced performance and cost and time savings. The main research question is:

How have other businesses adopted the eSourcing system and what are the common success factors and challenges in the implementation process?

In order to get more hands-on information about the beneficial usage of the system, a support research question was also created:

How to best use and benefit from the eSourcing tools?

This research focuses in a specific eSourcing system that is used in all of the interviewed companies and the commissioner alike. Furthermore, this study focuses solely to the strategic sourcing phase of the procurement process therefore the order to pay part of procure to pay process is left outside of the research focus. This study focuses to the implementation of eSourcing tools, which typically include tools used in the tendering phase meaning the electronic Request for Information (RFI), Request for Proposal (RFQ) or Request for Quotation (RFQ) in addition to the electronic reverse auction. Electronic sourcing tools can also include tools such as spend management, contract management or supply base management, but this research only studies the adoption of eRFx and eAuctions. Tendering plays a big role in the strategic sourcing function in organizations and still today tendering is commonly conducted via emails or phone calls, which is why it is seen as important focus area in many organizations when digitalizing the supply chain related processes. Another important limitation and a research gap is, that this study focuses to B2B sourcing tools, specifically to buy-side cloud platform and thus does not focus on the supplier's point of view of the implementation. Suppliers are seen to have a relevant role in the success of the implementation of the electronic sourcing tools, but supplier's point of view was not seen a priority to be studied in this research.

There are several existing studies about the implementation of different types of electronic procurement systems in the academia. However, it has to be noted that most of the researches focus on eProcurement as a whole whereas there is not as many researches specifically about eSourcing, which is considered only as a part of the eProcurement. Several scientific articles focus on public procurement whereas private electronic procurement is not as researched area. For example, Croom (2000 & 2005) studied the adoption of electronic procurement in MRO purchases in the public sector. According to the study of Croom and Brandon-Jones (2007) of e-procurement implementation to UK's private sector, two of the most important motivational factors influencing e-procurement adoption, was economic benefits and factors such as organizational commitment, support and training, which effect greatly to the uptake of electronic procurement tools (Costa, Arantes and Tavares 2013, 240). Furthermore, Walker and Harland (2008) examined the factors influencing e-procurement adoption in the United Nations (UN) organizations and Costa, Arantes and Tavares (2013) analyzed the implementation of public e-procurement in different types of public organizations.

There is a notable number of scientific journals specifically about eProcurement adoption in the public sector but also some literature about eProcurement system implementations in the private sector. As an example, Gunasekaran, McGaughey, Ngai and Rai (2009) studied the current status of eProcurement in SME's in USA and also investigated which factors influence in the eProcurement adoption. Trkman and McCormack (2010) studied the benefits and risks of implementing eProcurement in private organizations. Smart (2010) studied the business case for eProcurement and examined the drivers for the usage of eProcurement technology and the problems encountered during implementation. Bartezzaghi and Ronchi (2005) studied benefits and criticalities of specifically electronic sourcing in a buyer-operator-seller perspective.

Min & Galle (1998), Croom (2000) and Emiliani (2000) studied the realization of cost improvements, which are achieved by using electronic procurement systems and resulting in transactional and process efficiencies. Cost efficiency is the main reason for organizations to adopt electronic sourcing systems, which is why cost efficiencies gained through electronic procurement and sourcing have been studies widely in the literature. Even though there are academic journals and scholarly researches about electronic procurement systems, the focus is most of the time in the operational purchasing systems rather than focusing on the systems that are used in the strategic sourcing and especially during the tendering phase of the sourcing process. According to Caniato, Golini, Luzzini and Ronchi (2010, 492-493) the eProcurement literature lacks models explaining degrees of eProcurement adoption in terms of technology (for example the functionalities used) and organization (for example the degree of use and objectives of the use).

Moreover, many of the previous studies have focused on the benefits and challenges of electronic procurement and sourcing implementation. The data for those studies have been gained through questionnaires and surveys, which is why many times the results have been somewhat broad and do not necessarily provide detailed information or frameworks for private organizations to utilize. Although, it has to be noted that the previous studies have acted as good benchmarks especially about the drivers and benefits of electronic sourcing since eProcurement and eSourcing share the same drivers and barriers. Nevertheless, more detailed and specified information is required in order to get a deeper understanding of how to adopt the electronic sourcing tools successfully to private organizations. This study aims

to get a more hands-on approach and more detailed information by benchmarking companies operating in Finland, who have already adopted the specific eSourcing system and gain more detailed knowledge of the important aspects, which should be taken into consideration, while having an eSourcing tool implementation project. Detailed knowledge is needed since electronic sourcing systems are taken into use in continuously growing number of companies.

Figure 2 presents the focus of the theoretical part of this study. The three main focus areas are procurement especially focusing on strategic sourcing, electronic sourcing and the change management in the eSourcing implementation process. Theoretical part focuses first on describing procurement as a function and then general sourcing processes, especially the tendering process. Upstream part of procurement is under examination in this study since the eSourcing tools typically cover only the upstream part of the procure to pay process.

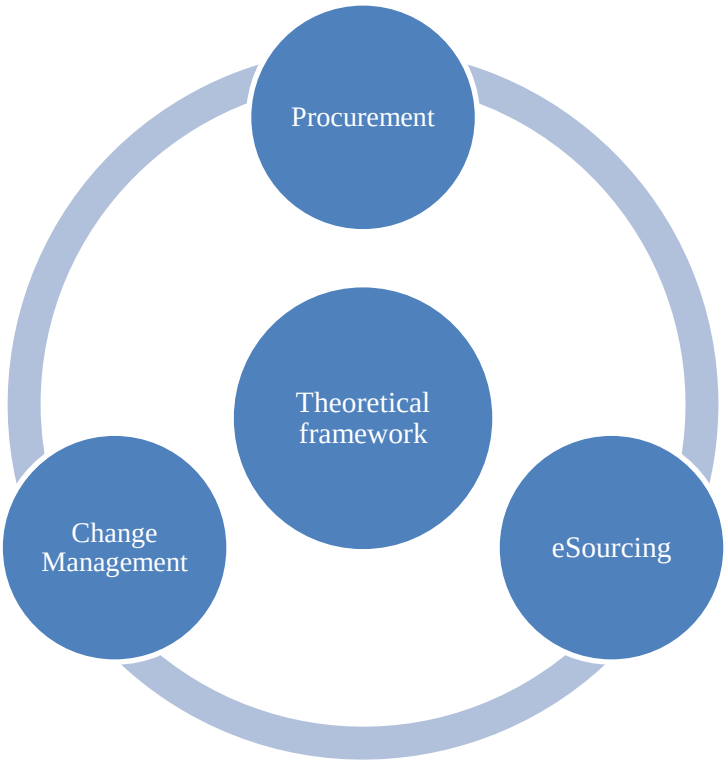

Figure 2. Theoretical framework of the study.

The second theoretical chapter focuses on explaining the concept of electronic sourcing. Moreover, the benefits and challenges of electronic sourcing are examined and also

eSourcing tools eRFx and eAuctions are described at in more detail, because those tools are commonly used during the electronic tendering process. The eSourcing implementation and change management chapter presents commonly agreed best practices in electronic sourcing and procurement implementation projects and covers especially the change management aspect of the implementation success. The focus in the change management chapter is in IT related change and does not go into detail about general change management theories or practises. Implementation of eSourcing system is reviewed in order to identify similarities between the literature and the empirical findings of this study and thus draw general conclusions about the best practices of the eSourcing system implementation.

1.3 Research methodology

Qualitative research methods are used in this study since the qualitative data collection methods fitted best to this case so that the desired information could be gained from the collected data. Moreover, this research is conducted as a case study and it also has attributes from action based research. Case studies generally focus on single case, situation or a group and the interest is usually aimed to the processes within that case. Data is generally collected in the natural environment and natural situations where those would normally occur and the data collection is typically done by observing, interviewing and researching different types of documents. The aim of a case study is to describe a certain phenomenon. (Hirsjärvi, Remes & Sajavaara 2013, 134-135) This study focuses more closely to one certain company and its electronic sourcing system adoption process thus it has most of the attributes described previously. The study has also features from action based methods of research since the purpose of this study is to find best practices for the commissioner to implement the electronic sourcing system and simultaneously while conducting the research also to actively participate in the implementation project in the company and aim to overcome arising challenges during the adoption of the system.

Besides observing internally and participating in the implementation project, interviewing is used as the main data collection method. Interviewing is used as data collection method in order to study, how other companies have succeeded in the electronic sourcing implementation projects and usage of the system after the preliminary implementation

period. Interviews are also conducted within the commissioner company in order to get an in-depth understanding of the desired outcomes of the implementation project and also to help forming in the interview questions for the reference interviews. In addition to the interviews many informal discussions were conducted internally in order to understand the current sourcing processes and the current progress and level of the implementation project. In addition to the primary data being collected by the interviews, secondary data such as scientific journals and articles were examined in order to build up knowledge to conduct the study and also to make the literature part of this study. Moreover, company reports and Intranet was used to collect data to compliment the collected primary data. Methodology will be explained in more detail later on in chapter five.

1.4 Research process

The research started in the September 2016 by identifying the need for this study. After the topic of the thesis had been formed and instructed by the commissioner, data collection was started by researching into the eSourcing system implementation project materials and by having a kick-off meeting about the current phase of the project with the project manager and the project team. After the kick-off meeting, three internal interviews of the sourcing personnel was conducted in order to formulate in-depth understanding of the matters that the commissioner wanted to be found out from the reference companies. The questions and themes for the benchmarking interviews were formed based on the internal interviews and discussions. Before conducting the interviews of the reference companies, literature review was made so that ideas and prior research can be utilized in the interviews and to build up knowledge about the topic. Figure 3 highlights the main milestones of the research.

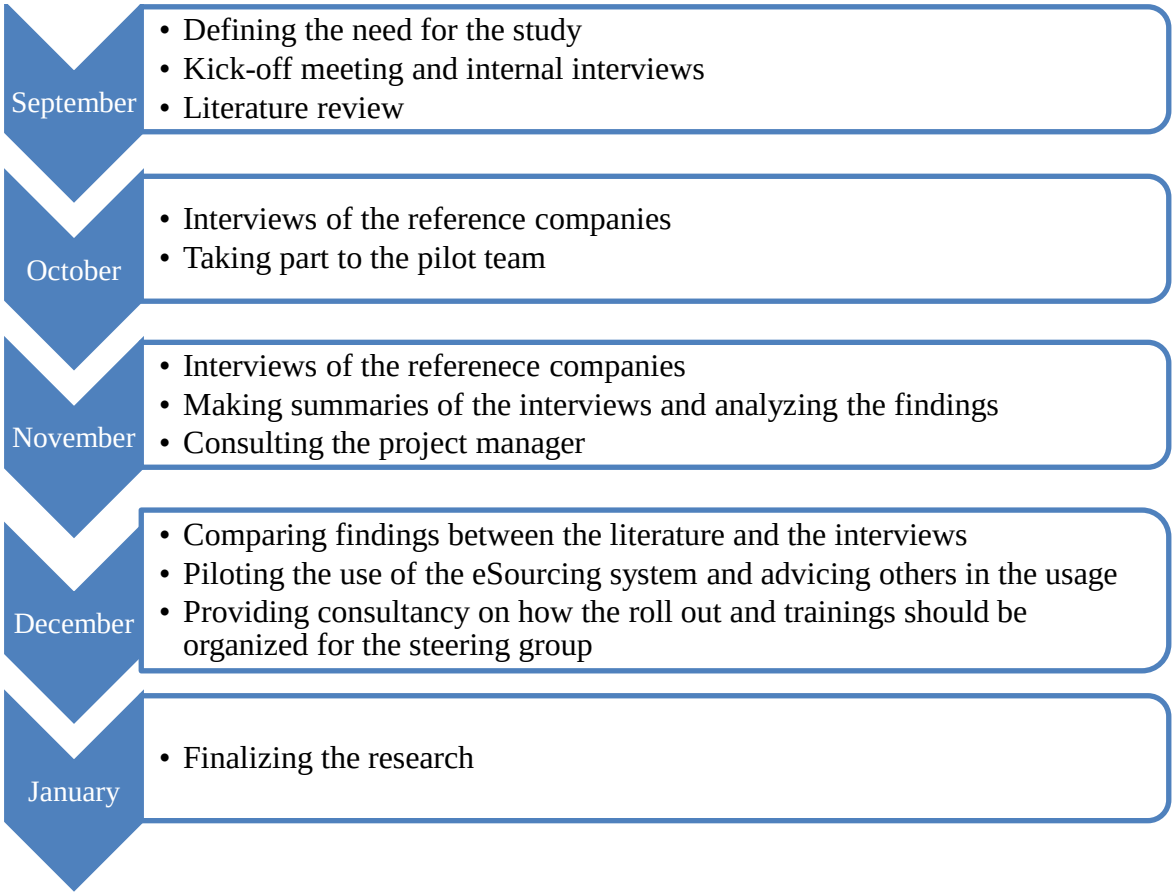

Figure 3. Research timetable.

The reference companies were chosen to be contacted since there were prior knowledge that those companies were using the same eSourcing system that the commissioner was in process of implementing. Moreover, the reference companies were also selected because of their size, experience and previous cooperation and contacts with the commissioner company. The interviews were conducted during October-November 2016. Four of the interviews were conducted via Skype and three were face-to-face interviews. After the interviews were held, summaries of each interview were provided to the commissioner so that the commissioner was able to review findings already during the project. Also, a summary of analysis of all of the interviews and the findings were established and given to the commissioner during November 2016. The findings were presented to the steering group of the project and recommendations for example about the training methods and key user concepts were provided. Several of the recommendations were taken into use during the pilot phase and the mass roll out of the system was designed based on the reference findings and recommendations.

1.5 Structure of the study

This thesis consists of seven main chapters. The introduction aims to explain the research topic, basic need and background for the study and explain the structure and methodology used. There are three theoretical chapters, which aim to provide important background knowledge from prior studies and present findings from scientific literature and academia. First literature chapter provides an overview of the procurement, strategic sourcing and sourcing process. The second chapter gives an outlook to the literature findings of eSourcing and its generally accepted benefits and challenges. The third chapter deals with change management related to eSourcing implementation. Figure 4 below portraits the structure of the study.

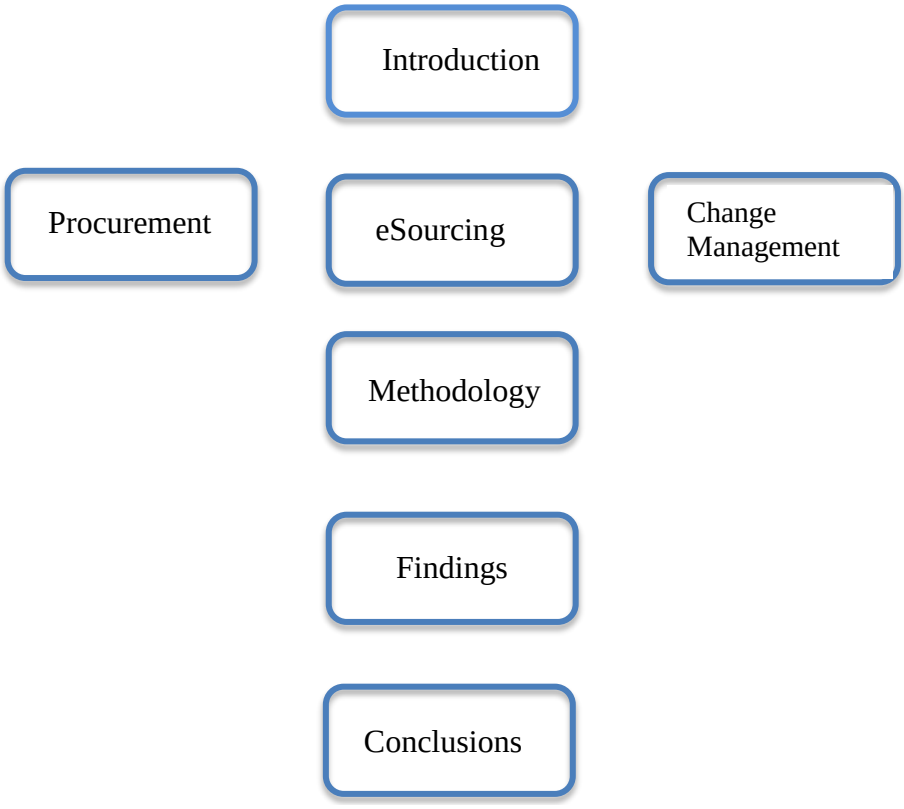

Figure 4. Structure of the thesis.

The methodology chapter explains the detailed process of the research and the methodology used throughout this study. In the empirical part of this study, the findings from the interviews of the benchmark companies are analyzed and presented. In addition, results from the previous studies and the literature are combined with the results from the interviews in order to get a comprehensive picture of the successes that could be imitated and the failures

that could be avoided during the implementation process of the eSourcing system. After the findings have been presented, conclusions are given in the last main chapter of the thesis. The aim of the conclusion to give overall conclusions and a summary of the thesis and also to evaluate the reliability and validity of this study and give further research topics.

1.6 Definitions of key terms

This section clarifies the main key terms and abbreviations used throughout this study.

ASP – Application Service Provider

B2B – Business to Business

Electronic Procurement - Automation of any part of the procurement to payment process with electronic tools (Concha et al. 2012).

Electronic Reverse Auction – " A buyer-initiated auction in which a buyer posts its product or service needs and invites real-time bids from multiple sellers with prices moving downwards as vendors compete against each other. The price decreases as sellers compete for the buyer's business, with the lowest bid considered the winner" (Sollish & Semanik 2011, 203).

KPI – Key Performance Indicator

MRO – Maintenance, Repair and Operations

P2P – Procure to Pay

RFI – Request For Information; " A formal document sent by buyer to a potential supplier asking for specific information about its organization, products, and capabilities" (Sollish & Semanik 2011, 203).

RFP – Request for Proposal

RFQ – Request For Quotation; " A formal document including detailed specifications sent by a customer to a supplier requesting a price quotation and other specific details such as lead time" (Sollish & Semanik 2011, 203).

SaaS – Software as a Service

SCM – Supply Chain Management

TCO – Total Cost of Ownership

2 PROCUREMENT

There are many times confusion about the terms and concepts used in the procurement field. Several of the procurement related terms such as procure, source, purchase and buy are used interchangeably that is why confusion about the terms exist. (Iloranta & Pajunen-Muhonen 2008, 57) Because of this confusion, this part of the literature review aims to clarify, which concepts within the procurement function this thesis mainly focuses on and, which procurement processes are relevant to the electronic sourcing system and its tools that are examined later on in the study. Even though the main concepts of procurement are clarified in this theoretical part, it also has to be remembered that procurement function is organized in different ways in the organizations and alike the terminology varies according to a company.

In order to clarify the concepts, firstly, this chapter aims to give an overview of procurement in general and more specifically explain what procurement is and what the generally accepted concepts in the field are. Secondly, a sourcing process is explained in detail in order to later on understand in which part of the sourcing process the electronic sourcing systems are used for. Thirdly, the importance of procurement is discussed and fourthly, the categorization possibilities in procurement are presented in order to later on identify, what types of purchases can be sourced through the electronic sourcing systems.

2.1 What is procurement?

Procurement can be seen as a subset and a key constituent of supply chain management (SCM) (Knoppen & Saenz 2015, 124). Procurement means the process of managing organization's external resources. The aim of procurement is to minimize costs, optimize the use of external resources and secure the availability of goods and services in best terms possible (Nieminen 2016, 10). Organization's operation, administration, maintenance, management and development requires different types of goods, services and knowledge outside the organization itself in order to function. Procurement aims to exploit the supplier markets so that the needs of the end customer are fulfilled in the desired way and so that it maximizes the overall benefit of the organization. (Iloranta et al. 2008, 67) Furthermore,

procurement includes activities that are required to get the product, service or material from the suppliers all the way to the final destination (Van Weele 2003, 16). Procurement, along with other activities such as production, warehousing and transportation, is one of the activities in supply chain. Procurement is generally seen as one of the important activities that contributes to the competitive advantage of a company. (Lysons & Farrington 2006, 4) Procurement can enhance the competitiveness of an organization by increasing cost-efficiency and bringing additional value to the end-customer throughout the supply chain (Nieminen 2016, 11). Figure 5 summarizes benefits that can be achieved through sourcing. The benefits include for example improved quality and service to the end customer, cost reductions and developments in product and process technologies.

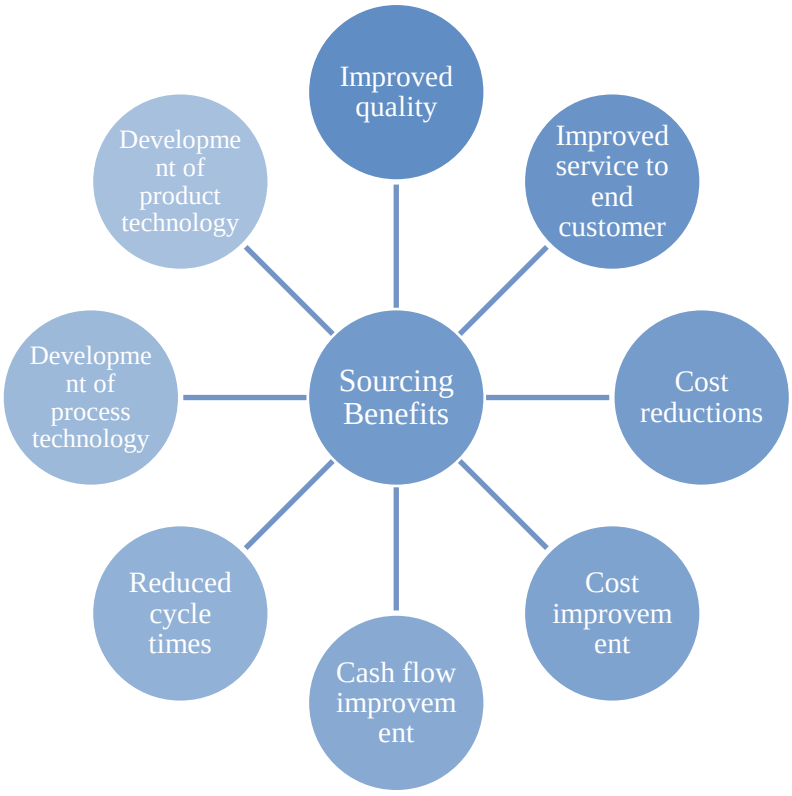

Figure 5. Effective sourcing benefits (Scott, Lundgren & Thompson 2011, 38).

Procurement is many times seen as broader concept than purchasing (Iloranta et al. 2008, 58.) According to Iloranta et al. (2008, 59) procurement includes all the activities that ensure that all of the services and products that the organization needs, has been purchased. Those activities include for example procurement of goods and services that are needed in the production, procurement of external workforce, consultancy or accounting services.

Furthermore, the purpose of a procurement unit is to support the organization's operational needs by purchasing raw materials, components, subassemblies, repair and maintenance items and services. Many times purchasing function also supports the R&D function in the new product development and in the outsourcing of different processes. (Monczka, Trent & Handfield 2005, 30)

The ultimate goal of procurement function is to:
"1. buy products and services at the right place
2. from the right source
3. at the right specification that meet the needs
4. in the right quantity
5. for delivery at the right time
6. to the right internal customer" (Monczka et al. 2005, 31).

The procurement function of a company usually encompasses the process of buying. Procurement involves tasks such as specifying the need for purchasing products, selecting the supplier, arriving at a proper price, specifying terms and conditions of the contract, issuing the contract or ordering the goods or services and also following up of the delivery and supplier performance. More specifically purchasing function usually covers activities such as determining the specifications such as quantities and quality of goods or services needed to be bought, selecting the most suitable supplier, conducting negotiations with the supplier in order to make an agreement, placing orders, monitoring and controlling the order and evaluating the supplier. (Van Weele 2003, 14)

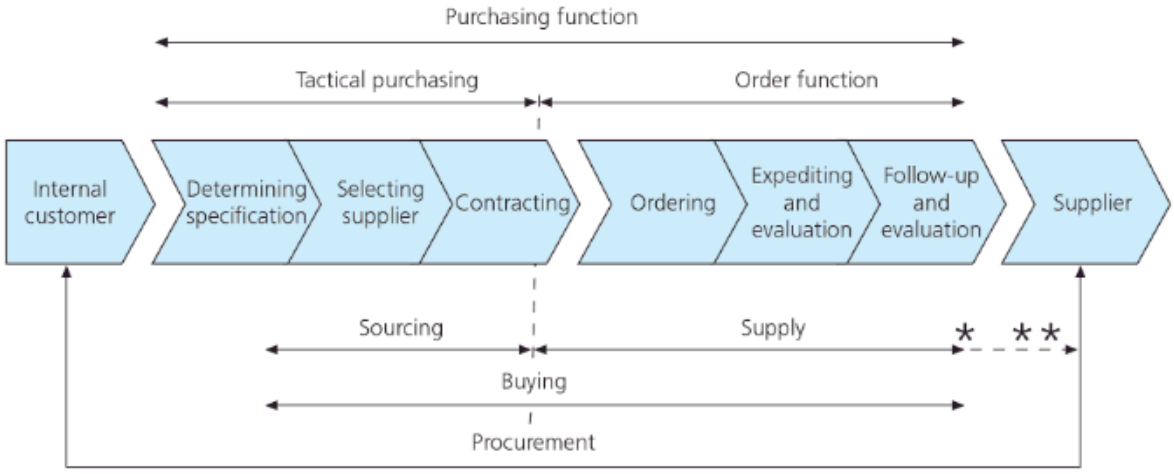

Figure 6. Purchasing process model and some related concepts (Van Weele 2010, 9).

Many times the term procurement is used also to describe the entire process of purchase to pay (P2P). Figure 6 presents the procurement process (P2P), where the left part is described as sourcing and tactical purchasing and the right side is stated as order function. Nowadays in companies sourcing is many times divided into strategic sourcing and operative sourcing. Operative sourcing takes care of the daily purchasing activities such as placing purchase orders and contacting the suppliers on daily basis about the practical arrangements. The tasks in strategic sourcing include activities such as searching for new suppliers, following the occurring changes in the supplier markets, selecting suppliers according to the tendering, negotiation and contracting processes (RFx, analysis on the suppliers, auditing the suppliers, evaluating the suppliers) and handling the supplier relationships (measurement, feedback, development). (Nieminen 2016, 11; Iloranta et al. 2008, 171) The focus of this research is in the strategic sourcing part, which is why it is next explained in more detail.

2.2 Sourcing

Sourcing is one of the activities within supply chain in B2B environment. Main tasks in sourcing are the selection of new suppliers and managing the suppliers over a certain period of time, establishing long-term relationships while simultaneously reducing costs and managing supply risks (Feisel, Hartmann & Giunipero 2011, 54). When selecting new suppliers, sourcing professionals are finding suppliers that provide products or services that meet the required needs, analyzing suppliers and drawing up contracts with the suppliers. Another important task is to manage the supplier over specific periods of time. The time is obviously depended on the length of the contract and the type of the product or service purchased. (Scott, Lundgren & Thompson 2011, 37-38)

Sollish and Semanik (2011, 1) define strategic sourcing as “organizational procurement and supply chain process used to locate, develop, qualify and employ suppliers that add maximum value to the buyer’s products or services” whereas Carr and Smelzer (1997, 201) define strategic sourcing as “the process of planning, implementing, evaluating, and controlling strategic and operating purchasing decisions for directing all activities of the purchasing function toward opportunities consistent with the firm’s capabilities to achieve its long term goals”.

Sourcing is the process of identifying, selecting and developing suppliers. It is a key activity of procurement. Sourcing can be executed at tactical, operational or strategic levels. Tactical or operational sourcing typically concerns lower-level decisions related to high-profit, low-risk or non-critical items. Strategic sourcing typically concerns long-term decisions about high-profit and high-supply risk items and also low-profit, high-supply risk bottle neck items. Strategic sourcing also includes a formulation of long-term purchasing strategies and policies, managing the supplier base, partnership sourcing and purchases if capital equipment along managing sustainability of the suppliers. Nowadays strategic sourcing is considered as knowledge-based and strategic activity which takes into account the total cost of ownership (TCO) rather than only taken into account the price paid per item. By conducting strategic sourcing, an optimal mix of supplier relationships want to be accomplished in order to create competitive advantage. (Lysons & Farrington 2006, 367)

The value and momentum of strategic sourcing has been in an upward trend during the past decade. Especially in the manufacturing industry, sourcing has a vital role since the spend can account up to 80% of the revenue. The trend in strategic sourcing is to have and sustain long-term supplier relationships with fewer trusted suppliers. The idea behind is that a few, previously approved, tested and trusted suppliers are much more cost-effective than having many unknown and untested vendors even though they might offer lower prices. Many organizations are nowadays focusing to the TCO and valuing many factors rather than price. (Neef 2001, 96)

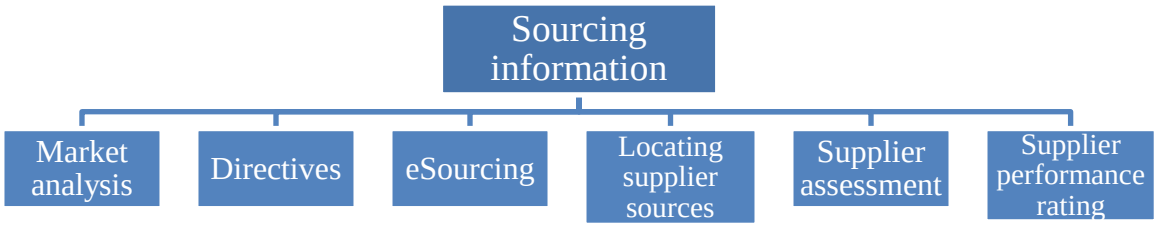

Figure 7. Areas of sourcing information (Lysons & Farrington 2006, 367).

Figure 7 highlights some of the important areas of information, which sourcing professionals gather as part of their main task. A core task of strategic sourcing is to use business intelligence to analyze the purchasing environments, markets, and make appropriate decisions and recommendations based on the analysis. Market knowledge helps in

forecasting the demand, price trends and it helps in indicating whether or not alternative sources of supply are available. It also gives indications on the security of supply sources and provides information related to the trends within the market. (Lysons & Farrington 2006, 370)

According to Sakki (2014, 129) the focus of sourcing is negotiation tactics and techniques, tendering and placing orders. Moreover, the sourcing personnel typically use most of the time in finding new suppliers, selecting the right suppliers and managing the relationships with the suppliers. In strategic sourcing the tasks include for example considering; what is total spend, who are the suppliers, what are the total costs, who are the internal stakeholders involved in the sourcing process, how can big volumes be utilized, should the company make or buy, what standards and certifications are needed and required from the suppliers, what type of relationship should be developed with the supplier, how to prepare for the negotiations and how to measure and measure the supplier performance. (Sakki 2014, 135) Important concepts related to sourcing are strategic purchasing, supplier integration which includes alignment, supply base management and reducing supplier base. Another important part is to create win-win situations in the buyer-supplier relationships, supplier development, and strategic alliances. (Storey, Emberson, Godsell & Harrison 2006, 759-761)

According to Iloranta et al. (2008, 62-63) companies that have a more proactive procurement unit, spend most of their time finding new suppliers, selecting the suppliers, managing the suppliers and developing the relationship with the suppliers rather than focusing on the routine purchasing tasks (e.i placing purchase orders etc.). Proactive procurement aims to analyze the supplier markets and thus take advantage of the arousing opportunities whereas reactive procurement reacts to the occurred changes in the markets. In proactive procurement, the sourcing unit is involved in the R&D and production and gathers the knowledge from those units as well. Furthermore, in proactive procurement price is not always the only determination but mostly TCO and quality are the key determinant. Also collaboration with suppliers are seen important and there is aim to create win-win situations. Figure 8 presents the core aspects in proactive procurement.

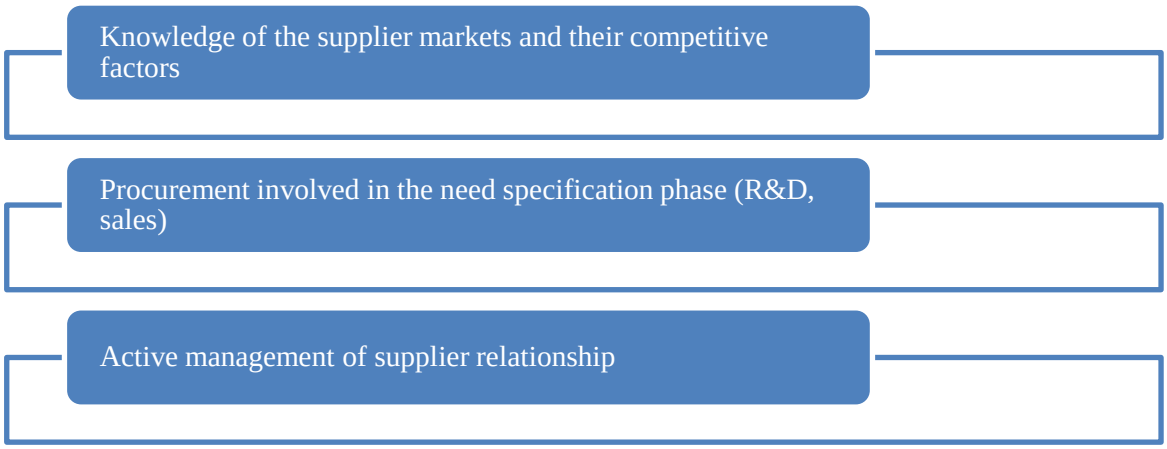

Figure 8. Core of the proactive procurement (Iloranta et al. 2008, 64).

Today's sourcing practices are continuously developing towards more comprehensive and cooperative direction. Organizations are currently paying a lot of attention to sourcing and aiming to take advantage of the total volumes of the organization and considering the whole life-cycle of the products and risks that the supply chain arouses. Also, sustainability aspects of supply chains are now a very important topics in different organizations. Sourcing units are aiming to be more proactive in their activities and thus create more value for the end customers. (Sakki 2014, 129)

2.3 Sourcing process

Figure 9 portraits the entire Purchase to Pay (P2P) process. The upstream part of the process is the sourcing process and the downstream part of the P2P process is the operational purchasing or procurement part. Sometimes the sourcing part of the P2P process is also called pre-order phase and procurement part is referred as post-order phase. This part of the study concentrates to the sourcing process in more detail.

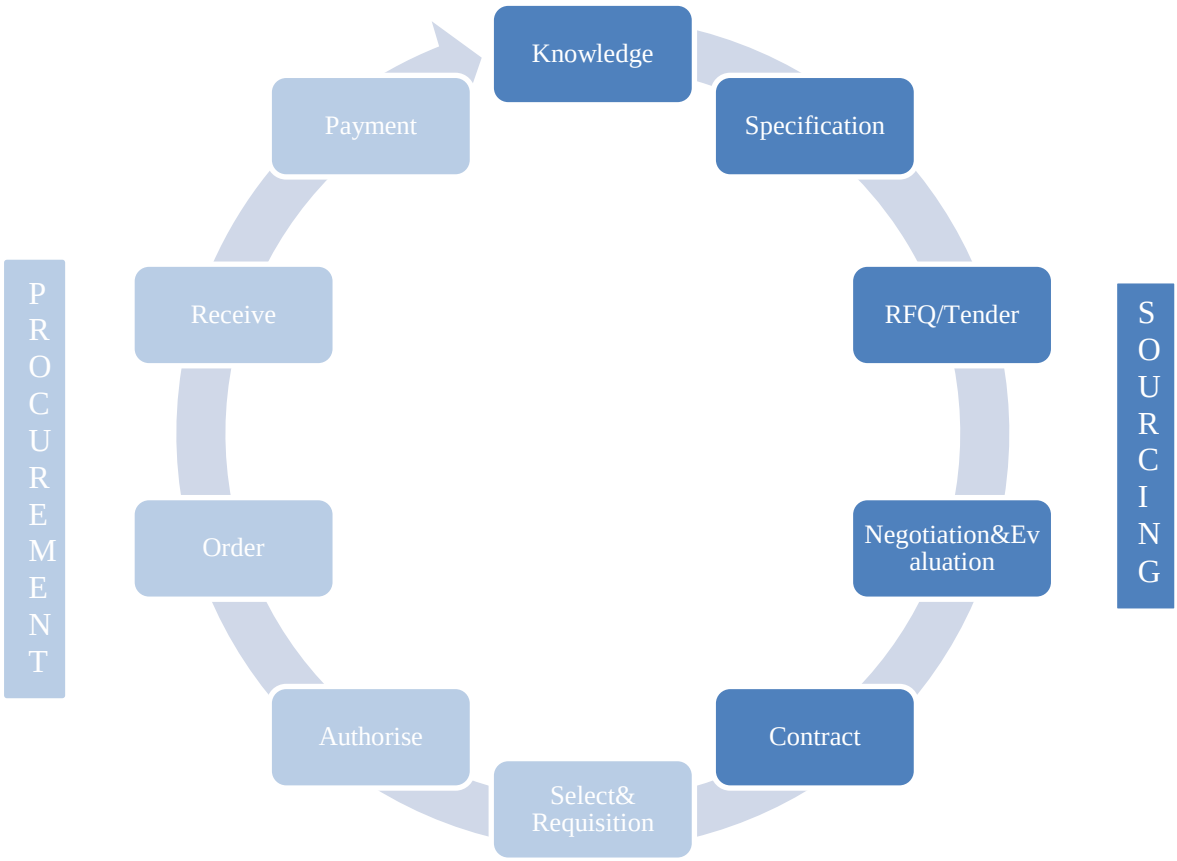

Figure 9. Purchase to Pay cycle (BuyIT 2004, 5).

The sourcing process steps vary depending on the organization and according to products and services that are sourced. Figure 10 below highlights the basic steps of a sourcing process. The steps include realizing the need to source products or services, specification on what exactly needs to be sourced, sourcing the potential or existing suppliers, tendering and negotiating with the supplier, selecting the supplier that is the best fit for the organization and lastly making a contract with the supplier. These basics steps in Figure 10 are the pre order steps in procurement, which is then followed the order and pre-order phases of the procurement. An important aspect to remember is that, when purchasing new items, P2P process might require much more steps and time compared to the repeat items that normally have already approved sources (Scott et al. 2011, 40).

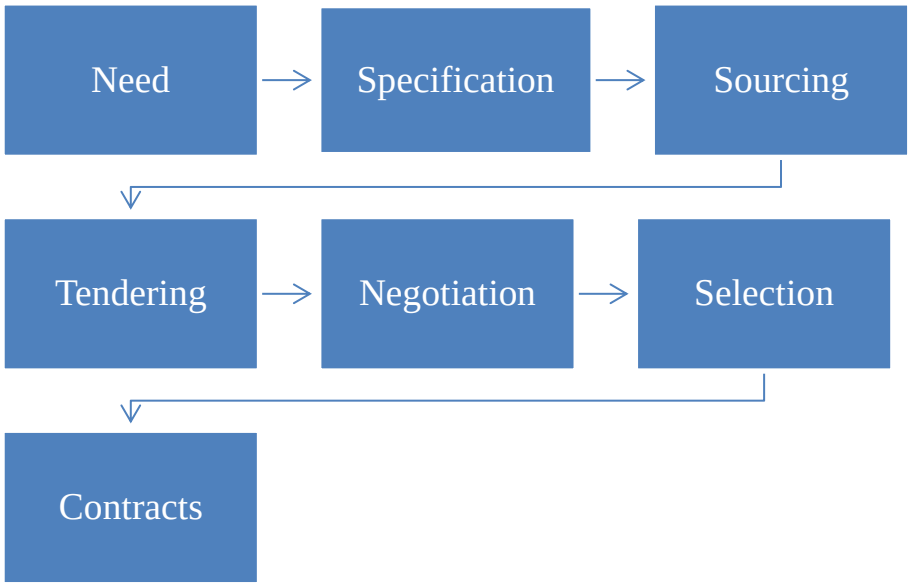

Figure 10. Pre order process of the sourcing process (Scott et al. 2011, 40).

As mentioned previously, a typical purchasing process begins with the need to define the purchasing requirements. Requirements are based on the demands of the organization's end customer. In manufacturing companies the pre order phase of the procurement process starts, when a need for example to manufacture a new product is identified. Naturally the need to manufacture a new product can be based on the end customer's need or then the R&D function might develop a completely new product. After that the specifications and need to source the materials are detected, then it is indicated to the sourcing unit of the organization. During this first stage of sourcing, the specifications are developed in more detail and an overall view of end customer's market is considered in order to decide on the purchasing requirements. Purchasing requirements include things such as; how much needs to be purchased, what needs to be purchased and also more detailed specifications for the products and services are determined. At this specifications development stage, the sourcing professionals typically work in cross-functional teams, where for example people from engineering, operations, marketing or sales are also present and their expertise is used to come up with clear specifications for the purchased goods. In addition, the sourcing unit will establish for example commercial objectives during the first step. That includes identifying specifications from the suppliers, lead time, cost, quality and service level. Then the sourcing unit will start the process of sourcing meaning looking for the potential suppliers for example for the desired raw material. The material can be sourced from existing supplier or a

completely new supplier depending on the specifications of the sourced item. (Presutti 2003, 220-221; Scott et al. 2011, 39-41, 172)

After screening for the suppliers, the sourcing professional will select a short list of potential suppliers after which the tendering process is started. "A tender or bid is a formal offer to supply goods or services for an agreed price" (Lysons & Farrington 2006, 576). Tenders generally include an invitation to tender, instructions for the tenders, specifications, contact conditions, dates. (Lysons & Farrington 2006, 578). The tendering process includes making RFI's, RFP's and RFQ's. RFQ is typically used if a monetary value of the item is high and the organization does not currently have a supplier for the item. RFQ enables suppliers to give a quotation for the buyer based on the information and specifications provided by the buyer. A common practice is to request for at least three quotations in order to have a comprehensive comparison between the quotations. RFP is used if the contract requires negotiations rather than competitive bidding. Negotiations are usually needed if the item is complex and aspects other than the price are important. RFI is used if the buyer needs further information from the suppliers for example related to the market or product. (Cousins, Lamming, Lawson & Squire 2008, 61; Scott et al. 2011, 39-41)

An important step in the sourcing process is also the assessment phase, when the suppliers and their tenders are compared against each other and the supplier is selected based on the decided selection criteria. Negotiations are held with the chosen supplier or several suppliers and a potential buyer-supplier agreement is established. Typically order routines and transaction-processes are established for all purchases that are included in the negotiated contract. Contract negotiations are sometimes held to establish the terms and conditions of a formal contract. The last step of the sourcing process is evaluation if the supplier performance. Effective supply management involves concepts such as formal supplier selection approaches, effective negotiation strategies and specific programs for the supplier performance evaluation. (Scott et al. 2011, 39-41, 172; Presutti 2003, 220-221)

2.4 Types of purchases

Companies generally organize their purchasing function for example by the categories of goods and services in addition to dividing the function into strategic and operative sourcing.

Naturally, there are different types of goods and services that can be purchased. Companies usually make the distinction between direct procurement, which means purchasing the materials that are directly related to the manufacturing of the product and direct procurement, which are the products or services that are not needed in order to run the company. Services are typically classified under indirect procurement function. In more detail, especially in the manufacturing firms, purchased goods are classified under the categories listed below (Scott et al. 2011, 38; Van Weele 2003, 22);

- Raw materials
- Supplementary materials
- Semi-manufactured products
- Components
- Finished products
- Investment goods or capital equipment
- Maintenance, repair and operating materials (MRO)
- Services

Everything can be bought from raw materials for manufacturing products, machines to pencils and also services. Two broad categories relate to production related procurement and non-production related procurement, which includes purchasing for example MRO and range of different types of services. Both categories are important for the operation of a company. (Chaffey 2015, 303) Direct sourcing consists of purchasing raw materials, semi-manufactured products and components that are needed to produce the products made by the organization. Important aspect in the direct sourcing is the continuance and repetitiveness of the procured goods. Indirect sourcing refers to the goods such as articles needed in the production, energy, office appliances etc. Important aspect of the indirect sourcing is the fragmentary nature of it and also the disjointedness. Sometimes organizations also separate capital sourcing as third broad sourcing function. Capital sourcing means the procurement of buildings, machines and equipment. Important aspect in the capital sourcing is the nonrecurrance and the largeness of the purchase. (Iloranta et al. 2008, 137)

3 eSOURCING

This chapter aims to explain the concept of electronic sourcing. Firstly, different definitions of eSourcing are given and common terminology about eSourcing systems is presented. Secondly, he benefits and challenges of electronic sourcing are investigated. Thirdly, the concept of eRFx is defined followed by the explanation about electronic reverse auctions. Lastly, the process of electronic sourcing is discussed.

3.1 What is eSourcing?

eSourcing commonly refers to the electronic purchase procedures implemented through different types of web-based tools. Electronic sourcing systems are used to for example standardize and automate purchasing processes. (Gunasekaran, McGaughey, Ngai & Rai 2009, 161) Presutti (2003, 221) defines eSourcing as a part of purchasing process where internet applications are used to help buyers in the supplier selection process from the prequalification of supplier to the creation of RFx and to the selection of the final supplier. Monczka et. al (2005, 34) define eSourcing as "suite of tools used to achieve efficiency in purchasing transactions". eSourcing tools are used to manage the flow of different types of documents for example by either automating the document creation process or electronically transmitting documents to the suppliers. (Monczka et al. 2005, 36) Furthermore, B2B eSourcing systems such as eRFxs, eAuctions and market exchanges aim to automate workflows and leverage organizational spending power. (Davila, Gupta & Palmer 2003, 11) eSourcing tools can be buy-side applications of B2B e-business. eSourcing system is an online trading and processing platform to support electronic acquisition of product and materials, plant and equipment, labor and services. (Pop Sitar 2011, 382)

3.2 eSourcing systems

Different types of eSourcing applications and systems have been introduced worldwide, which give procurement professionals opportunities for example to manage tendering processes online and in real time (Gardenal 2013, 216). eSourcing systems are essentially

seen to enable users to specify purchasing requirements, to conduct market research, to pre-qualify suppliers and allow running of tenders. However, many of the applications currently available vary tremendously from each other and not all the applications have similar possibilities nor are all of the functionalities available in all of the applications. (Van Weele 2002, 175) eSourcing systems can include functionalities such as competence analysis, spend analysis, specification, RFxs, eAuction, contract evaluation, negotiation, tracking, forecasting and monitoring savings. (BuyIT 2004, 5). Most commonly, eSourcing systems include both forward and reverse auctions and also online bidding and tendering functionalities. Online bidding and tendering can be also referred as electronic request for quotations, proposals or information (eRFx).

According to Lysons and Farrington (2006, 193) several types of electronic platforms exists in the markets. Lysons and Farrington have divided the platforms into four different categories; e-hubs, exchanges, portals and marketplaces. In this context, it is important to define that the eSourcing platform that is being looked into in this research is B2B cloud-based website, where the buyer (e.i customer of the eSourcing platform provider) and suppliers meet in order to transact business. B2B exchanges can be either public or private but in this context only private platforms are discussed. The private platforms are typically available for the buyer and by invitation to its suppliers and trading partners. The platforms can be either buy-side or sell-side. (Lysons & Farrington 2006, 193) This study focuses on a private buy-side exchange platform. Figure 11 aims to illustrate concept behind the B2B eSourcing system, which is operated by the buyer but the application, the eSourcing system, is provided by a service provider. Suppliers are invited to provide their bids into the system for example via access link or email.

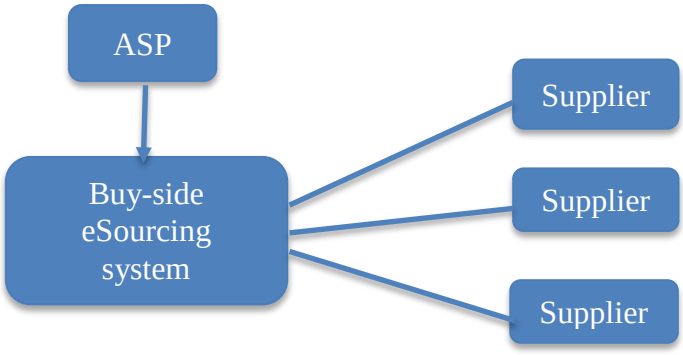

Figure 11. Buy-side eSourcing system.

Cloud based eSourcing means that the service provider offers the access to the software from a remote location, over a network, which means that the customer does not need to run the software nor install it anywhere. The software can be accessed through Internet or even offline through a webpage or a direct link. (Retzer 2012, 20) Moreover, eSourcing system vendors meaning the application service providers (ASPs) provide an online platform to their customer and their service many times focuses offering the entire business solution, which includes the software and support as well as the technological aspects of the system such as software development and maintenance and data quality assurance. There are also vendors, who offer consulting services besides the technological aspects and might conduct the entire tendering process for their customers. (Caniato et al. 2010, 494)

The advantage of ASP's who provide hosted systems for buyer companies is that the service provider stores the software and the files in their own servers and the buyer companies do not need to buy, install and maintain their own software. Generally, the service is provided for a license fee or subscription. (Neef 2001, 93) The decision on which type of eSourcing system to use is dependent of the objectives and needs of the company in question. An important part in electronic sourcing or procurement is to find the right solution of which system to use and the system itself has a great impact on the success of the implementation of the system.

3.3 Benefits of eSourcing

Organizations may adopt e-technologies for several reasons but the bottom line is many times that they are overarching business strategies, contributing in the improvance of the overall performance and increasing the competitive advantage of the organization (Walker & Harland 2008, 837). Businesses of today are streamlining their procurement activities with robust electronic application infrastructure. Inefficient practices and maverick buying are targeted to be eliminated and thus time saving and efficiency are aimed to be gained. Electronic procurement platforms and applications enable procurement professionals to focus on their core tasks such as supplier relationship management, negotiations, supply chain and market analysis and category strategy creation. (Kalakota & Robinson 2001, 307)

Also (Neef 2001, 96) argue that organizations are taking eSourcing systems in use to help sourcing professionals to focus to the valuable tasks of developing the supplier relationships, analysing markets and spend so that the best few trusted suppliers are found and so that the TCO factors can be thoroughly found und understood. According to Johnson and Klassen (2005, 9) electronic sourcing is not a replacer for the strategic sourcing activities but it is rather a way to make data mining and analysis easier and more visible and also to have semi-automated processes so that strategic sourcing focus can be in the negotiations and managing the supplier relationships rather than in manual tasks.

According to Kalakota and Robinson (2001, 315) the major benefit of electronic procurement is efficiency and effectiveness. eSourcing efficiency benefits are related to the lower procurement costs, faster cycle times, reduced maverick or unauthorized buying, well-organized reporting of information and closer integration of the procurement function. eSourcing effectiveness benefits include the increased control over the supply chain, proactive management of data and also higher-quality purchasing decisions within organizations. (Kalakota & Robinson 2001, 315) The most commonly agreed benefits of electronic procurement processes are cost savings and increased efficiency (Gunasekaran et al. 2009, 161). In addition to these main benefits also the elimination of unnecessary paperwork, human errors and process lead time are also seen as important benefits of adoption of electronic sourcing tools. The tools also enable sharing information more easily, improving data accuracy, closer collaboration and increased transparency. eSourcing tools are typically also expected to decrease the amount of emails and sharing of excel files, documents and contracts between buyers and sellers.

eSourcing will be able to deliver significant savings since it supports the sourcing process and helps in ensuring the optimal use of contracts. Electronic sourcing is also able to give more focus and visibility to different spend categories and thus enable companies to accurately monitor expenditures and levels of savings. Furthermore, eSourcing tools can enable the increase in the number of tendering processes without increasing the number of purchasing staff. The tools can also streamline the negotiation process and also increase the transparency between the buyers and suppliers. (BuyIT 2004, 4) Caniato, Longoni and Moretto (2012, 942) distinguish eSourcing benefits into two classes; organizational benefits and process benefits. The organizational benefits include for example spending control and

empowerment, supply base rationalization, better communication and transparency increases. The process benefits include reduction of administrative activities because of the process automatization, decrease in the maverick buying and overall process streamlining.

Electronic sourcing increases process efficiencies since it reduces the time taken in the tendering process and it encourages both the buyer and the suppliers to follow best practices and thus enabling more consistent tendering processes. Moreover, electronic sourcing reduces direct costs such as distribution costs, paper and courier costs etc. It also reduces the need to travel and have face-to-face meetings. In addition, the buyers are able to focus on their core tasks rather than focusing on the administrative tasks. (Costa et al. 2013, 239; BuyIT 2004, 8) In addition, electronic sourcing tools are seen as essential for physically distributed organizational environment since the tools facilitate also smoother information sharing within the organization (Gunasekaran et al. 2009, 161).

Furthermore, Martin (2008) identifies benefits of e-bids and e-tendering;

1. clear audit trail
2. capture and evaluation of cost information on bids/tenders
3. quick assembly of documents
4. single point of access
5. brand identity
6. automated management of the bid system and scoring.

eSourcing will make the sourcing process more transparent and measurable. Because of the electronic storage of data in the same place in the electronic platform, the buyers and suppliers are able to create an audit trail which helps in the audition processes as well as in sharing of the data internally inside the organization. (BuyIT 2004, 25) Smart (2010, 188-189) states that electronic procurement drivers are related to different steps of the procurement process. Two important drivers are standardization and knowledge sharing. In addition, eSourcing is capable to produce for example improved data, visibility, common standards and improved processes.

Also Tai, Ho and Wu (2009, 5399) agree that the use of electronic procurement software can strengthen the search abilities, facilitate faster and more accurate data transmission and sharing, provide quicker and more cohesive information. In addition, lower communication and coordination cost can be obtained. According to Monczka, Trent and Handfield (2005, 34) document flow included in the purchasing process is typically very time consuming, since several documents need to be prepared, managed and approved. A growing number of businesses are streamlining their purchasing processes by moving to electronic procurement, which reduces paperwork and streamlines the document flow. Figure 12 summarizes the main benefits of electronic sourcing.

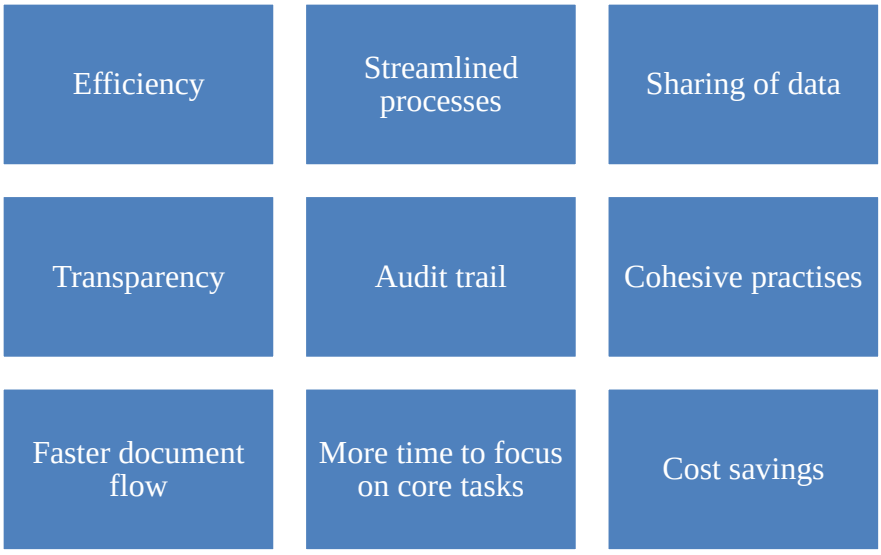

Figure 12. Summary of benefits of electronic sourcing.

Lead time of the tendering process typically varies from weeks to months depending on for example the product type, strategic importance of the product, supplier location and electronic communication system. Many times, the purchasing processes of more specific components, materials or services tends to be more elaborative, time consuming and transaction-intensive. However, some activities can be easily automated from the process so that less people are needed to be engaged in the process. When parts of the purchasing process is automated, the sourcing professionals can focus on the negotiation with suppliers and establishing long-term agreement and relationships. In addition, more consideration in the reduction in the number of suppliers can be made. Many times, the most labor-intensive part of the sourcing process is the price negotiations, especially regarding the large volumes

of spend such as multi-year long agreements. Sometimes agreeing over the price, quality and delivery terms may take several months. By conducting sourcing through electronic auctions or eRFxs, time and price reductions can be achieved. (Emiliani 2000, 177)

Bartezzaghi and Ronchi (2005, 410) argue that the efficiency gains in using the eSourcing are more obvious in the high frequency purchases since the specifications have already been sent to the suppliers through the eSourcing platform in the same form and the proposals are easier to evaluate when those also come in more cohesive forms. Because of these efficiency gains, the buyer has more time to focus on the value adding activities such as market analysis, supplier scouting and supplier performance evaluation.

According to Van Weele (2002, 178) the potential savings acquired from electronic sourcing vary between direct and indirect sourcing. For direct goods, the savings have been estimated to be between 1% and 15% and in the indirect goods at between 15% up to 30%. By automating the tendering process, organizations are able to extend the number of the sourcing projects and manage their spend categories more broadly and thus achieve more annual savings. Many studies and benchmarks have shown that lead time of the tendering process can be reduced by 33% and there can be as high as 50% reduction in the process efforts made. (BuyIT 2004, 21)

3.4 Challenges of eSourcing

Despite the fact that electronic sourcing generates positive impacts on the efficiency, effectiveness, dematerialization, competitiveness and transparency, the adoption of eSourcing system not only imposes technological challenges but it also embodies a large scale change management efforts in order to create a more efficient procurement culture in the organization (Gardenal 2013, 215-216). According to Gunasekaran, McGaughey, Ngai and Rai's (2009, 173-174) study of the adoption of eSourcing systems, the readiness to adopt eSourcing systems was not seen as a barrier in the implementation process whereas the barrier was really about organizations not being able to perceive the benefits of electronic procurement. Other barriers included eSourcing implementation not being priority of the top

management, fear of change, insufficient skills and knowledge, immature technology and security concerns.

The perceptions about the actual benefits and risks of eSourcing are the determining factor in which phase the electronic sourcing system will be adapted to an organization. The common risk factors, why companies are not adopting eSourcing system is usually the technology-related risks such as, how the system is integrated with other IT systems. In addition, companies may have concerns about how the system effects to the buyer-supplier relationship and what are the appropriate security and control mechanism to secure safe usage of the system. (Davila et al. 2003, 12) Also McCue and Roman (2012, 228) state that eSourcing might complicate the development of trust between the procurement professionals and suppliers since communication through IT systems usually streamlines the communication and that might effect to the trust and other aspects to the buyer-supplier relationship.

Companies might also be concerned about the relation of cost and benefits of the system and whether or not the expenses weight out the benefits. There are also concerns if the suppliers are willing to use electronic tendering rather than using the old methods. Security issues such as confidentiality and authentication concerns can impose risks to organizations while having electronic sourcing systems. Risks also include the inadequate business processes that do not support the uptake of electronic sourcing systems and the incompatibility of the electronic sourcing processes with the company culture, meaning that there might be a lack of clear corporate policies and widely accepted procedures and rules. Another big risk while implementing electronic sourcing system is the resistance to change. People are used to working in certain way and because of the electronization of parts of the purchasing process, people are forced to change the way they work which might cause strong resistance. There might also be lack of skilled personnel that are handy in using different IT systems. However, considering these risk and challenges and trying to minimize the risks will help in overcoming the resistance to change and reduce the negative effects of implementing electronic sourcing. (Toktas-Palut, Baylav, Teoman, Altunbey 2014, 78-79, 86) Figure 13 sums up the main challenges and risks related to electronic sourcing from the buyer perspective.

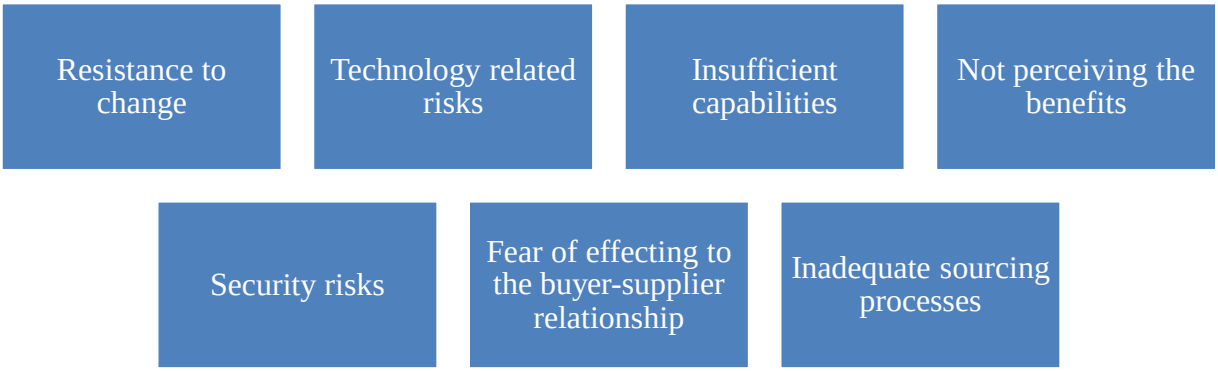

Figure 13. Summary of challenges and risks of electronic sourcing.

3.5 Electronic RFx

Electronic RFx is seen as one functionality of the eSourcing system. The eSourcing platform service providers help buyer organizations to develop multiparameter RFxs so that for example the most economically advantageous offer or the lowest cost buy can be found. The system allows buying firms to evaluate the proposals and make supplier decisions more easily since there has been already efforts put in when creating the RFxs and the entire process is mediated by the eSourcing technology. (Presutti 2003, 221-222) According to Smart (2010, 183) e-RFX is a pool of applications designed to improve decision making by buyers. It includes tools such as search tools, rating and scoring systems, bid analysis tools and evaluation techniques.

Electronic tendering or eRFx encompasses the process of sending requests of information and prices to suppliers and receiving responses through electronic systems. In some cases eRFx also includes the analysis and comparisons of the supplier's responses. However, it is depended on the eSourcing system itself and what functionalities it includes. eRFx process does not include closing the deal with the supplier, thus its main purpose is to minimize the manual work needed to send out the RFxs and receiving the responses. In many organizations, the current tendering processes are very bureaucratic and involve a lot of paperwork, which is then made more efficient by using the electronic tendering tools. (de Boer, Harink & Heijboer 2002, 26) Davila et al. (2003, 21) argue that electronic RFx strategy is the best electronic sourcing tool option to be used, when number of requestors is low,

number of suppliers, degree of standardization and competition is at medium level. Whereas electronic auction is the best option when number of requestors is low, number of suppliers, degree of standardization and competition is high.

3.6 Electronic reverse auction

Electronic reverse auction is an online, real-time auction between a buyer organization and a group of pre-qualified suppliers, which compete against each other in order to win the business to supply goods or services (CAPS 2003, 7). Electronic reverse auctioning is a process where bids are given in real time to the buyer through an eSourcing system. In reverse auctions, the buyer posts an item or several items that they wish to purchase, and the suppliers compete to offer the best price for the items over a specific period of time (Lysons & Farrington 2006, 199)

E-reverse auction enables a buyer company to purchase goods or services at the lowest price or combination of the lowest price and other attributions through the eSourcing software. Reverse auctions are bidding events online where a buyer awards contract to the supplier who is usually the lowest bidder. Terms and conditions for the online event is organized by the buyer company and the conditions are specified by the buyer. Reverse auctions are used for leverage products on a limited basis and also to some routine products. (Smart 2010, 183, 188) Electronic reverse auctioning is seen as efficient tendering process since it is done during a fairly short period and it many times results in lower prices. Although, electronic reverse auctions are not always seen as suitable option for the tendering process since it might lead to frequent change of suppliers and thus does not contribute to sustainable supplier relationship development. (Knudsen 2003, 730) Up to 20% of cost savings can be achieved through the usage of electronic reverse auctions (Nieminen 2016, 32).

The skepticism towards online auctions is due to the heavy emphasis on the price competition that is commonly argued to sacrifice the other supplier attributes and reverse auctioning is said to have negative effects on supplier-buyer relationships. Moreover, there is known to be also many cases where the buyers have not awarded the business to the lowest price supplier and that has created frustration among the suppliers in general. However,

when conducted properly online auction are able to offer visibility of the market prices for the buyers and suppliers and offer the possibility in more competitive pricing. A well conducted online auction entails a preauction, where information is shared about the product specifications and capabilities of suppliers are shared between the buyer and suppliers. There should be also a postauction phase where negotiations between the awarder supplier and the buyer are held about the non-price attributes after the electronic reverse auction phase. (Elmaghraby 2007, 410)

"Online auctions work best where there are many suppliers with available capacity and the buyer has leverage or otherwise dominates the relationship" (Emiliani 2000, 178). Reverse auctions are used for example for spot buying and to eliminate time-consuming activities offline such as the process of selecting suppliers, requesting for quotations and comparing the quotes received (Lysons & Farrington 2006, 200). "A major benefit of auctions is that they enable organizational buyers to identify the best offer from an expanded base of potential suppliers from around the world" (Davila, Gupta & Palmer 2003, 13). According to Lysons and Farrington (2006, 200) reverse auctions are particularly useful in following circumstances;

- when uncertainty of the size of the market and willingness of the suppliers to supply the product exists
- when purchasing large quantities of items in which clear specifications are possible
- when purchasing services such as car rentals, freight services or travel.

Moreover, Lysons and Farrington (2006, 202) have listed some dos and don'ts of online reverse auction to be considered. When thinking about strategy, procurement professional should consider following questions; "What percentage of my spend is e-auctionable?, What do I want to achieve by running e-auctions?, What impact will this have on key supplier relationships?". While in preparation state of creating an reverse auction event, decide on the number of suppliers who to invite to the bidding event, provide clear specifications, ensure that sufficient market competition exists, ensure internal commitment to implement the results, agree on the evaluation criteria, agree on the bid format and timing of the event and define clear rules for the online reverse auction event. During the event the procurement professional should ensure the proxy bidding processes, monitor suppliers' bidding and the

tactics. It is important not act unethically or get carried away of the hype of the lowest bid since it is not always the best answer. During the follow up phase, the sourcing decision should be finalized and feedback to all suppliers should be given regardless of their success or not. (Lysons & Farrington 2006, 202)

3.7 eSourcing process

In electronic sourcing the process of bidding, tendering and online auctioning is typically called as an eSourcing event. The buyer is the host of the event and thus creates the events by using the sourcing system in order to execute the tendering process online. (Elmaghraby 2007, 411) Naturally, as if the tendering process would be conducted by emails or via phone, also in electronic sourcing different sourcing processes will follow depending on the sourcing category in question. The tendering process can consist of several rounds of RFxs meaning either Request for Information (RFI), Request for Proposal (RFP) or Request for Quotation (RFQ). The electronic sourcing platform will enable the quick selection of appropriate RFx or eAuction structure for the category in question. Many times the RFx history is saved in the eSourcing platform, which means that RFxs with the specific requirements could be re-used later on. (BuyIT 2004, 21) This way a lot of time is saved since there is no need to search for the information such as supplier contact details, relevant suppliers to be invited, previous years' data and other relevant things repeatedly yearly or even monthly. When there is historical data available, copying and reusing the events is an easy and efficient way to save time.

When starting to use electronic sourcing tools, companies normally start with the low criticality products or services to be piloted and then move on to the more critical purchases. The most critical aspect in the eSourcing is the phase when specification for the events (for example eAuction or RFx) are created. The definitions should be clear, strict and formalized so that it is easy to manage the auction and evaluate the results. Furthermore, another important aspect is that enough sellers are invited to the events so that lower purchase prices can be achieved. However, price is not always the only criteria and other factors such as quality, service level and reliability can be also considered. (Bartezzaghi & Ronchi 2005, 410)

As would be done during regular tendering, first the sourcing professional will decide, what is the appropriate method in the tendering process to use depending on the category and what type of information needs to be received. If the buyer wants to receive information from the suppliers, an RFI event can be send out to the suppliers to gather needed information. In RFI the buyer typically sends out 10-20 questions for the suppliers and the replies are then used to filter and identify the qualified suppliers. The typical questions usually include suppliers' location, size of the business, type of the business, production site, the product lines supported etc. Based on the suitability and willingness of the suppliers, the buyer invites the qualified suppliers to participate in a further eSourcing event. The event can either be an online auction or RFQ or for example a combination of RFI and RFQ. In the RFQ the suppliers place a single bid for the good or service in question, which have been specified by the suppliers in the event. There is usually a specific time period for the RFQ and the supplier needs to make its offer by the deadline. (Elmaghraby 2007, 411) Many types of sub-categories of RFQ's typically are available in the eSourcing system from which the buyer is able to choose.

Basic electronic tendering workflow;

1. create an event online
2. publish the event to the desired suppliers
3. communicate with the suppliers during the event period
4. monitor suppliers' activity
5. modify requirements if needed
6. open and evaluate the responses
7. award or progress the tender
8. report about the bid
9. archive the event (Martin 2008).

After the buyer has sent the RFxs, the suppliers will reply to the RFx online allowing the buyer to check in real time, which suppliers have completed it. The buyer is able to analyze the answers quickly since the information is returned in the same form consistently. (BuyIT 2004, 21) In online auction, several suppliers are invited to take part in the bidding. There is usually a tight timeframe, typically an hour, for the auction event. During the auction the

suppliers have a possibility to lower their prices according to the other offers. Usually the amount or the names of the suppliers are not visible for any other participating parties except the buyer. The suppliers are just able to see in which place they are in the auction and how much they would need to lower their price compared to other bidders in order to be awarded at the end. After the auction time ends, the supplier that has offered the lowest price, wins the bid. (Elmaghraby 2007, 411)

After the eRFx or eAuction event has been conducted in the eSourcing system, a normal round of negotiations or discussions can be held. It is also possible to have several rounds of RFx's in the eSourcing system as would be held in "regular" situation of the tendering process. It should be kept always in mind, that both indirect and direct categories will still require a personal buyer-supplier relationship even if the tender process is made electronically (Neef 2001, 120).

4 CHANGE MANAGEMENT AND eSOURCING IMPLEMENTATION

This chapter aims to clarify shortly, what is change management and present important aspects that are related especially to the change management process of electronic sourcing software adoption.

4.1 Change management

Change management is referred as managing changes of organizational processes and structures and the impact of those changes to the staff and culture of the organization (Chaffey 2015, 469). There are different types of change that can occur in organizations. According to Daft in (Lysons & Farrington 2006, 174) four basic types of change in organizations' procurement function are related to; technology changes such as electronic sourcing, product or service changes; meaning that specific categories might increase their strategic importance or administrative changes, which include moving away from discrete purchasing departments into more collaborative cross-functional processes, people related change such as the need for trained purchasing professionals and business relationship changes that arouse from partnership alliances or acquisitions and mergers. The forces to change can be both internal and external forces. (Lysons & Farrington 2006, 174) The changes related to the above-mentioned causes can be divided into structural changes, cultural change and individual change.

There are many existing change management models in the literature. The most famous ones are Kotter's (1995) eight-step change management implementation model and Jick's (1991) tactical level implementation step model. The most important learnings from Kotter's study is that change process goes through a series of phases and that mistakes made during those phases can have disastrous effect later on in the change process. (Kotter 1995) Jick's study concluded that implementing a change is a continuous process and discoveries are being made along the way. (Mento, Jones & Dirndorfer 2002, 45-46)

4.2 Change management process

Change management plans should be always as much of interest as technical implementation plans. Typically, these change management plans include six different categories; communication, project risk management, positions and structure, training and development, performance management and rewards and recognition. (Neef 2001, 194-196) It is crucial to make sure that the focus is not only in the technical execution and that the change management is also focused to the business transformation. There are two ways how to make change management as integral part of the implementation project; first is to make sure that project is structured and that there are enough resources, mostly staff, to ensure the necessary support and authority. A second way is to develop a clear change management plan. (Neef 2001, 188-189)

The main reason for IT system implementations to fail is many times related to people not the technical issues. The failure is many times caused by the lack of the organization being able to absorb the systems and also introduce the new system to the work practices. (Choen Weng Lou & Alshawi 2009, 100) People are sometimes convinced, that their way of doing their work is the best and only way, since it has been done that way for a long time. People also tend to fear change and its impact which follows and might think that changing things will only make matters worse. In IT related changes they might feel that they were promised a lot and did not however receive the promised benefits. Ways to tackle this resistance to change is to involve people in the change and stress the benefits and also address the possible challenges arising during the change. (Lientz 2011, 374)

4.3 Change management aspects in electronic sourcing

According to Pop Sitar (2011, 380) nowadays the relevant question is not anymore whether or not to adopt electronic sourcing systems but how should the implementation be carried out in order to get the maximum benefits from the utilization of electronic software. It is important that organizations take into account the factors that might effect to the success of the implementation process. By doing so, organizations have the possibility to organize themselves in a way that success is ensured. (Pop Sitar 2011, 380) It has to be remembered

that implementing electronic procurement tools is not a simple task. It requires a high level of purchasing professionalism, clearly defined purchasing processes and seamless integrations with other systems and tools within the organization (Van Weele 2002, 180).

eSourcing system implementation naturally shares the same challenges of change management as associated with any other information system integration. The implementation should not only mirror the same existing practises and processes but rather force new processes and ways of doing to be considered. CIPS states (Chaffey 2015, 310-311) that "organizations should not simply automate existing procurement processes and systems but should consider improving ways of working and re-engineering business processes prior to the implementation of eSourcing. Purchasing and supply management professionals should challenge established procurement practices to test whether these have evolved around a paper-based system and as such can be replaced".

Moreover, eSourcing implementation is not a simple matter for the organizations. It requires many changes, replacements and adoptions throughout the organization's infrastructure and processes. The changes usually go beyond the IT infrastructure and influence much broadly within the business units. Many times changes and new ways of doing business, especially when expressed using technological jargon that most of the people do not understand, are not always well received among the employees. Implementation of new electronic systems will require both changes to the ways that people work and also to the processes of the organization. (Kim & Shunk 2004, 162)

Whenever new digital business such as electronic procurement platforms are introduced, it requires that the organization's employees learn how to use the new systems but more importantly, it requires developing new ways of working. Many times introduction of digital system to support for example online sales or procurement, causes changes for the employees that are working in those functions. The changes might be many times perceived as threats rather than opportunities. For example, employees might be accustomed to working face-to-face with the suppliers or customers and because of new IT system, are now required to use digital systems that might decrease the amount of the human element of the contact. (Chaffey 2015, 469)

McCue and Roman (2012, 221) argue that the primary obstacles in the effective implementation of electronic procurement systems are unsuitability of the software platforms, organizational resistance, lack of strategic systems "integration and failure to involve the procurement professional in the design of the eSourcing system" (McCue & Roman 2012, 221.) For example, lack of training and buy-in from the employees are among crucial factors why implementation projects might fail (Chaffey 2015, 470.) Neef (2011, 131) argue that the main reasons for eSourcing system implementation projects to fail are the initial investment costs, security, trust and supplier-buyer relationship issues and the fundamental changes to the sourcing processes and company culture. eSourcing adoption is obviously much more than adopting a system, it is also a new way of working and requires changes to the sourcing processes and ways of thinking and behaving.

Figure 14. Conceptual framework of the implementation success (adopted from Vaidya, Sajeev & Callender 2006, 74).

Figure 14 portraits the conceptual framework of eSourcing implementation. According to Pop Sitar (2011, 384) competitive pressure, supply chain member pressure and supplier relationships are among the most important environmental factors that effect to the adoption to eSourcing. Also, organizational factors such as size, internal organization structures, culture, volume of the possible electronic transactions, resistance to change, organizational skill set and resources influence to the implementation process. In addition to the environmental and organizational factors, technological factors also influence to the implementation of the eSourcing. The complexity of the system, simplicity of the implementation, compatibility of with the other IT systems and reliability of the software are among important influencers.

4.4 Critical success factors in electronic sourcing system implementation process

Successful implementation requires for example management's support, informing the employees and other stakeholders about the change, training and involving of the employees, developing of metrics for measuring the success and the potential savings and reserving enough resources for the change project. (Tekes 2005) According to Chaffey (2015, 472) success factors in digital business change include the following factors;

- "management buy-in and ownership
- effective project management
- action to attract and keep the right staff to achieve change
- employee ownership of change"

According to Neef (2001, 138) eSourcing implementation requires broad change and project management. It is important for the key executives to understand the risk and benefit related to the project and also there needs to be organization wide sponsorship among the organization leaders. A third important aspect is to have a strong and honest communication plan, which would concern the project approach, schedules and the effect that the project will have in the organization. A fourth aspect is to have a broad input and participation among the different levels of the organization. Broad change management is important since unless the changes to business processes and employee work behavior is dealt with, the same old mistakes and inefficient practices are just make in real-time in the eSourcing system.

According to the research of Mose, Njihia and Magutu (2013, 375-376) critical success factors for the eSourcing implementation include following aspects; employee and management commitment to the success of the adoption process, reliability of the information technology and supplier performance, monitoring the performance of the eSourcing system, user acceptance of the eSourcing system and top management support. The challenges in the success of the implementation commonly were the resistance to change and lack of managerial support. There are several aspects that organizations should consider in order to make the eSourcing implementation successful. The factors include; user acceptance of the new IT system, early supplier involvement, employee training, top management support, measurement of the key benefits and re-designing the affected

business processes. The establishment of goals and baselines is very important in order to be successful in the adoption of eSourcing tools. By establishing goals organizations are able to measure the state of the progress of adoption of the system. It is also important to define the key performance indicators (KPI's) during the early state of the project so that benefits can be tracked and converted into measurable KPIs. (Mose et al. 2013, 375-378, 380, 387) Also Neef (2001, 196) state that identifying and recording an accurate KPI measures is also an important factor in a success of eSourcing implementation projects.

Moreover, Neef (2001, 188) states that successful eSourcing implementation projects have the following characteristics;

- executives understand and agree on the goals, approach and project timeline
- the project itself is planned and managed organization widely
- the project is coordinated and managed through strong and participative project management through which structure, clarity, integration and direction is provided
- project is meant to clean up the sourcing work processes and techniques
- change is managed through a change transition plan
- enthusiasm is created and resistance to change is reduced through comprehensive communication plan

The resistance towards electronic sourcing can be reduced with clear communication, sharing knowledge and interacting with the different stakeholders. In order to the electronic sourcing to be successful in the long run, organizations need to make sure that they follow their commitments, targets and continue developing consistent sourcing processes. In order for the transformation from traditional sourcing to electronic sourcing to be successful, a full-scale change management activities are required. Implementation and change management are the most challenging parts of the transformation because it is very much dependent on the organization itself. Change management requires vision, commitment and leadership. As any other change also electronic sourcing transformation needs a broad support, clear implementation plan and continuous communications to all of the stakeholders involved in the change. (BuyIT 2004, 24, 26)

Communication should be open and consistent thorough out the implementation. It helps in ensuring the internal buy-in. and is typically a critical factor in the success of the project. The communication to employees should include the following aspects;

1. "what is happening"
2. why it is happening
3. how it will affect the employees
4. when it will happen
5. what employees need to do
6. how employees will be provided further information and updates
7. how the company will know when it is successful" (Neef 2001, 195).

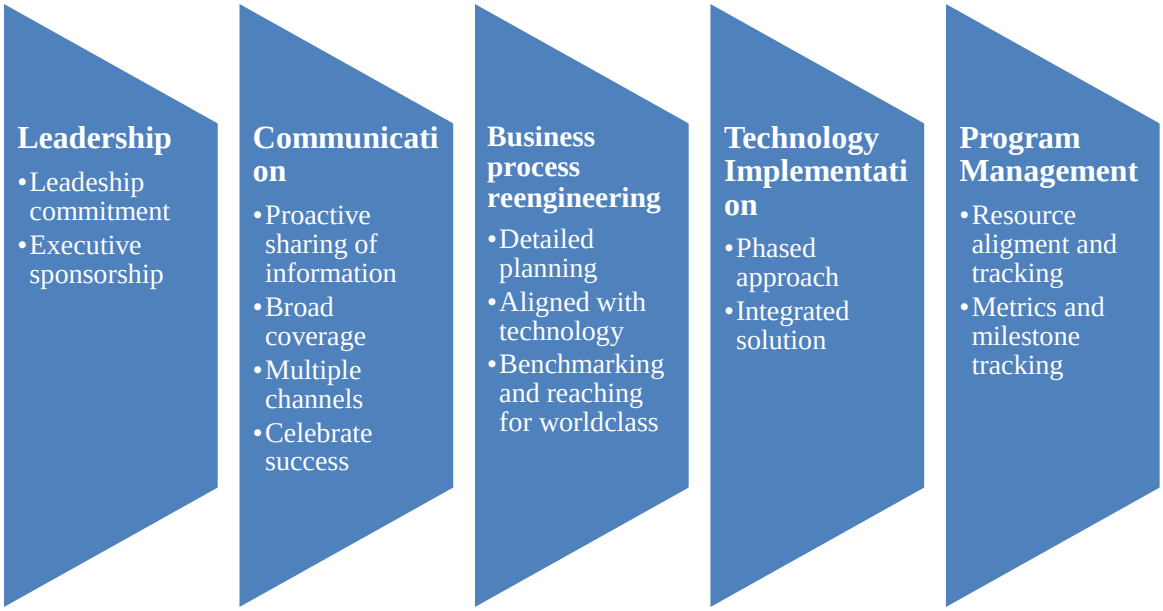

Figure 15. Implementation of eSourcing tools (BuyIT 2004, 26).

Figure 15 summarizes the areas and action points that are most important in eSourcing implementation projects. The most important areas are leadership, communication, sourcing process reengineering, technology implementation aspects and the overall management. Change management should be related to all these aspects. Vaidya, Sajeev & Callender (2006, 71) have identified more specific success factors in the eSourcing implementation;

- end user uptake and training
- supplier adoption
- compliance with the best practices for business case/project management
- systems integration
- security and authentication
- re-engineering the process
- top management support
- performance measurement
- change management
- eSourcing implementation strategy
- technological standards

As can be interpreted from the list below and also previous sources eSourcing system adoption and successful implementation requires thorough change and project management, communication to the internal stakeholders and also to suppliers, developing new ways of working, enhancing the internal buy-in by showcasing successful examples and sharing best practices between the internal users. Also establishing KPI's and common practices is very important in order to success in the implementation properly.

5 METHODOLOGY

In this chapter, the methodology behind the study is explained in detail. The aim of the methodology chapter is to clarify the chosen research method and data collection and analysis methods used and also to describe the process of the research.

5.1 Research approach

Because there is still lack in the existing literature about the implementation of eSourcing tools in private organizations, this study aims to find new insights of this certain phenomena in an explanatory way and has an inductive approach. This study uses qualitative research methodology with approaches of case study and action based research. The research is action-based because of the researcher's involvance in the eSourcing system implementation project in the commissioner. (Saunders et al. 2009) Figure 16 clarifies the research methodology.

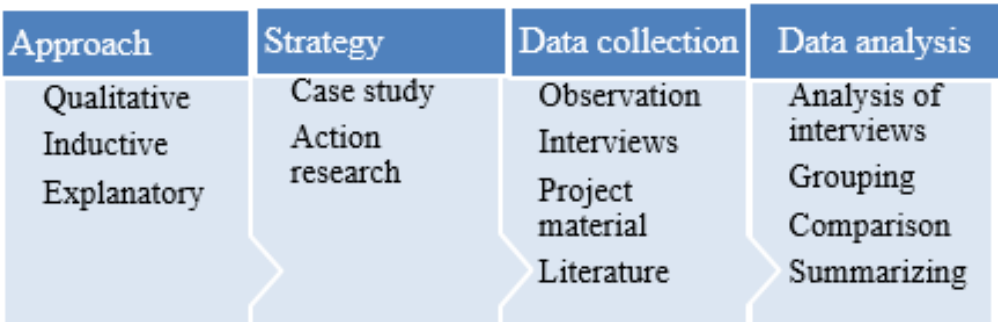

Figure 16. Research methodology.

5.2 Data collection and analysis

The main data collection method of this research was interviewing. First theme interviews were conducted internally with three sourcing managers of the commissioner company in order to find out, what aspects should be brought up during the reference interviews and also to get a deeper understanding of the ongoing eSourcing implementation project. The interviews were conducted as theme interviews and partly as open discussions. All interviews were recorded and after the interview the recordings were transcribed. After going through the material from the internal interviews, the main themes and semi-structured

questions were created for the reference interviews. After drawing up the questions, those were given to the commissioner to be checked in order to ensure that the questions and themes were suitable for the reference interviews and that desired information could be achieved with the help of the questions.

Five reference companies were chosen to be contacted because of the prior contacts to the companies and because of the knowledge that they use the same eSourcing software that was being adopted by the commissioner. The beforehand chosen reference companies were contacted by an email and their willingness to take part to the interview was asked, after which the interview times were agreed with the contacted companies that agreed to be interviewed. Preliminary interview questions were sent to the interviewees so that they were able to have an understanding about the themes and topics of the interview. Representatives from the reference companies were chosen to be interviewed because of their prior knowledge and expertise about the adoption of eSourcing tools. The interviewed persons were all working in sourcing related business units in Finland. Table 1 presents a summary of the basic information of the interviews.

Table 1. Basic information about the interviews.

Company	Interviewee	Position	Participation in implementation	Channel	Length
Company Y	Interviewee 1	Sourcing Specialist	No	Skype	1 hour
Company Y	Interviewee 2	Team Leader	Yes	Skype	1 hour
Company Z	Interviewee 3	Purchase Manager	No	Face to face	1 hour
Company A	Interviewee 4	Sourcing Director	Yes	Face to face	1 hour
Company B	Interviewee 5	Controller	Yes	Skype	1 hour
Company C	Interviewee 6	Sourcing Director	Yes	Face to face	1 hour

The reference interviews were conducted as a mix of semi-structured interview, theme interview and open interview. The themes of the interviews were decided beforehand and then questions were drawn up according to the themes. The themes were decided based on what things wanted to be benchmarked and known from the other companies. In order to go into details and gain in-depth knowledge about the reference companies' implementation projects, questions were drawn up to support the interview process. However, the order and number of questions varied according to the interview and its nature. Many questions were also added during the interviews spontaneously, meaning that not all the questions were similar in all of the interviewees. It was natural that the flow of the conversation was followed rather than sticking to specific questions. Some of the interviews' nature was more as open discussion rather than following the specific questions in form of an interview. The focus of the first interviews were more on the benefits and challenges of eSourcing in general and the last interviews concentrated more to the aspects of the implementation projects. (Saunders, Lewis & Thornhill 2009, 320) The interview questions are presented as Appendix 1.

Interviews were chosen as data collection method since the data wanted to be collected more as a way of conversation rather than in formal ways. All the reference interviews were conducted as one to one interviews in order to get as much as information from the interviewee as possible. Some of the interviews were held via Skype and all of the interviews were recorded. The duration of the interviews were approximately one hour. The interviews were recorded to get as much as information from the discussions as possible, because during the interview the focus needed to be in the discussion rather than making notes. After the interviews, the recording were turned into transcripts. Although, it was not necessary to have the transcripts as word to word transcription of the interviews due to the nature of the research. It was important to gain the main messages and between the lines meanings through the interviews, rather than using the interviewees exact words in the analysis phase. In addition, the word to word transcribing was not seen as necessary by the commissioner company.

All the interviews were conducted in Finnish and translated into English for the analysis and recommendations purposes. From the transcriptions, the most relevant findings were first analyzed into the findings chapter to this thesis and also summarized into lessons learned

Power Point presentations for the commissioner after each interview. In the findings chapter, the main information from the interviews is summarized and themed under broad questions and topics. In addition to the summaries, some comparison tables and analysis of the similarities and differences between the companies were made.

In addition to the interviews, data was collected by taking part to several meetings in the commissioner company as addition to observing, researching into internal documents and data and also taking part to the piloting and implementation projects. An important aspect in this research has also been continuously mapping the needs of the commissioner company and adopting the requirements set during the research plan. As an example, the interview questions were continuously developed further and added to be more detailed in order to get more specific information from the reference interviews. Another important point was that various implementation project team members had different hopes on, what should be examined from the benchmarked companies. As the research project were going on, the different ideas and requirements were tried to be combined and adjusted according to the wishes. Another important twist during the research was that many of the reference companies were interested in the research results, which needed to be taken into account when forming the final summaries and findings. It was also important that the benchmarked companies would gain insights from the findings and would be able to gain some advantage from this study.

6 FINDINGS AND ANALYSIS

In this part of the study findings of the reference companies' interviews will be presented and analysed. The interest is in how the companies have organized their eSourcing system implementation, what have been the most important learnings after the adoption of the system and also during the use of the system and also what things should be avoided so that the implementation process would be successful.

6.1 Company Y

Company Y has a broad procurement organization, which consist of strategic sourcing and operational buying with approximately 50 employees. The spend is dived into different sections and it is roughly 1,5 billion annually. The entire procurement organization in Finland uses the eSourcing system. The eSourcing system has been in use broadly since the beginning of 2016 and it is mostly used for the electronic RFxs and the module to manage the vast supply base of the company. The main targets and metrics for measuring implementation of the eSourcing tools is the amount of the sourcing events carried out in the eSourcing system and the experience level of the user (sourcing professional).

Company Y has had a successful implementation of the eSourcing system and it is using the RFx module of the system very frequently across the sourcing team. There were two interviewees from the Company Y, the first interviewee was previously known to myself, which is why Interviewee 1 was used to test the interview questions in addition to simply interviewing. Another interview was conducted in order to get a broader understanding of the implementation project in Company Y since Interviewee 2 was involved in the actual implementation team and is currently responsible in metering the implementation of the eSourcing tools.

Interview 1:

Why is eSourcing system used in your company?

Because fundamentally supply chain management related development projects have been nowadays focusing on the digitalization of different processes. The Company Y started using different types of information systems in order to be more modern and to comply with the global megatrend of digitalization. The common trend has been that businesses have started to use more and more information systems related to the purchasing and supply chain management. In addition, Company Y beliefs that the eSourcing tools are able to deliver cost savings and operational efficiencies. Furthermore, this specific eSourcing system is at use in the Company Y since it fits well to the company's indirect purchasing unit's tendering processes and is seen to bring benefits such as the system's ability to collect the data together in one place, to share the data between the users in the organization and to minimize the loss of data since the data is no longer only in personal emails or files. Also the possibility to communicate to the masses, meaning different suppliers, is seen as an advantage. By being able to communicate to the masses, time savings can be achieved since less emails need to be sent out.

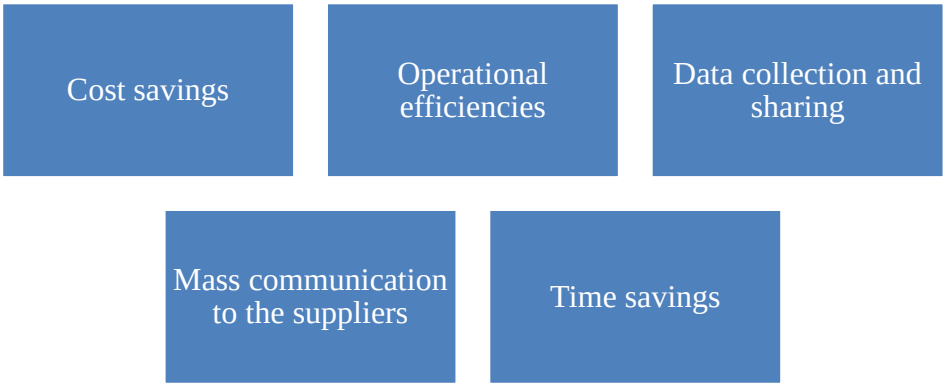

Figure 17. Perceived benefits of using eSourcing tools at Company Y.

What have been the biggest challenges related to the implementation or usage of the eSourcing system?

One of the challenges that Company Y faced during the implementation phase was that the positive benefits of the eSourcing system were not enough emphasized and communicated

to the future users (employees of the company). There could have been more communication and information about the system and its benefits before the adaptation of the system itself. Interviewee 1 emphasized that the training of the users is really important already during the implementation phase since now after starting the use the tools Company Y has noticed that some of the employees do not know how to use the eSourcing tools well enough and thus are not taking advantage of the full potential of the system. That frustration of not knowing how to utilize the system also creates scepticism among the employees. The key is that all of the users understand the real benefits of the system and can relate to those and truly "feel" and "see" the advantages their selves. Understanding the benefits can be only achieved by proper training of the users. In addition, the trainings should be personal enough so that the users are really is able to learn to use the system properly.

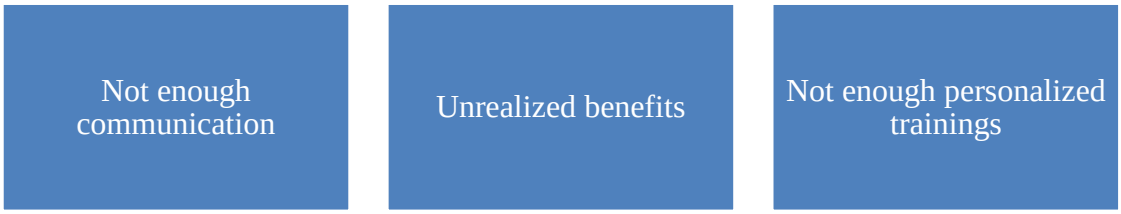

Figure 18. Challenges of implementation in Company Y.

Interview 2:

To what types of RFxs does the system best fit to?

According to the Interviewee 2, it depends a lot on what type of processes each sourcing line or spend category previously has had and what type of processes the RFx entails. However, it can be said that the usage of the eSourcing tool is most beneficial in RFxs which are complex enough. When the complexity of the RFx increases the efficiency coefficient increases. If too easy RFxs are executed with the RFx functionality of the eSourcing system, it only adds steps to the tendering process not decreasing the process steps as it should. Recommendation is to use the eSourcing tool in more comprehensive RFxs so that optimal benefits can be achieved.

The eSourcing system allows the users to execute all kinds of sourcing events online and according to the Interviewee 2, the system is very flexible and the users can easily execute

complex events through the system. However, it needs to be remembered that the possibility to execute complex events is not only dependent on the system, it also requires imagination, knowledge and skills from the users. The users need to "think outside the box" and continuously aim to develop their own skills and better the way of doing things. Moreover, creating more complex RFxs does require much more effort, time and resources but that way more benefits can be achieved. It has to be also remembered that the benefits of using the tools increase when the maturity level of the implementation and the users increases during time.

What is the target setting of Company Y?

Interviewee 2 recommends that there should be clear and visible targets for the implementation of the eSourcing system. Company Y has created very clear, tangible and transparent targets and ways to measure the implementation in order to enhance the implementation. Developing new processes and ways to better implement the system during the implementation process is also seen as an important factor. Interviewee 2 says; "you get what you measure", meaning that things that are not measured (and the goals that are not set) cannot be reached. The measuring is done in a very systematic way and the Company Y arranges implementation follow-up meetings with the application service provider regularly.

What have been the lessons learned during the implementation process of the eSourcing system?

One important learning point has been that people need to learn new things and change old habits and challenge the old ways of doing things. New tools and systems provide opportunities to redesign processes, which might not be always the most efficient since things have been done similarly for a long time. Procurement is full of processes, and process improvement is one way to gain efficiencies for example by developing work tasks and by optimizing contribution to the tasks. Another learning point is that the eSourcing system really provides time savings (efficiency), easiness in reporting, auditing and documentation and also increases transparency. Another lesson learned has been according to Interviewee 2 that people's mind-set towards change changes gradually while the people learn how to use the system and realize the benefits.

Another benefits of the eSourcing tools?

Controllability of data and the projects, cohesiveness of the information, shareability of the data and knowledge, documentation, possibility involve internal stakeholders through the tool.

Biggest challenges in the implementation?

According to Interviewee 2, the biggest challenges were related to the fact on how to best adjust the current processes for the system and vice versa in a way that it is done most beneficially (getting the benefits but not to bite too much so that it cannot be chewed). So the challenge was scaling the implementation and starting with the implementation. Furthermore, the challenge was also how to commit the employees to the change. Committing employees to change could be achieved for example by internal training.

Interviewee 2 also recommends that all of the sourcing teams from the sourcing organization would have one representative in the implementation project team so that they would be involved in the project right from the beginning of the selection of the application service provider and specifying attributes for the tools. The implementation goes smoother, when there is already one team member involved from each unit and thus the expectations can be somewhat realistic and reflected to the project. The project team members usually have the ability to test the eSourcing systems and run pilots, which means that they will develop a skill set for the usage already early on. Later they are capable in guiding the others in smaller teams (internal trainings). The project team members are the internal safe net and support for their colleagues in Company Y and they were responsible for the internal trainings. There should be trainings organized in smaller groups and also internal guidance materials provided.

Important part of the implementation project in Company Y was that the project team gave introductionary presentations for the others before the actual mass roll-out. In the info sessions, benefits of the implementations were emphasized among the good attributes and functionalities that the system has. After the info sessions the project team members gave some type of introduction presentations and then the usage was started with the help of the

key users. The key users typically supported their own team members in the creation of the first sourcing events (RFxs). In Company Y the roll out was not done simultaneously in all teams but rather flexibly in small teams.

Interviewee 2 gave also other tips for the implementation project; find the driving forces for the usage from your own processes and involve the employees in the change and in the implementation of the eSourcing system. A crucial point of the implementation is the user's own realization of the benefits of using the system. The targets for the implementation and the measurement criteria has to be visible and clear across the organization and sharing the knowledge of the best practises inside the organization is very important and useful. There should be clear plans for sharing the best practises of the usage between the different teams and units of the organization and finally the continuous development is also important in order to learn how to utilize the system and gain benefits also in future. There should be check-ups later on during the implementation phase – not only in the beginning and extra trainings should be provided for those who need it.

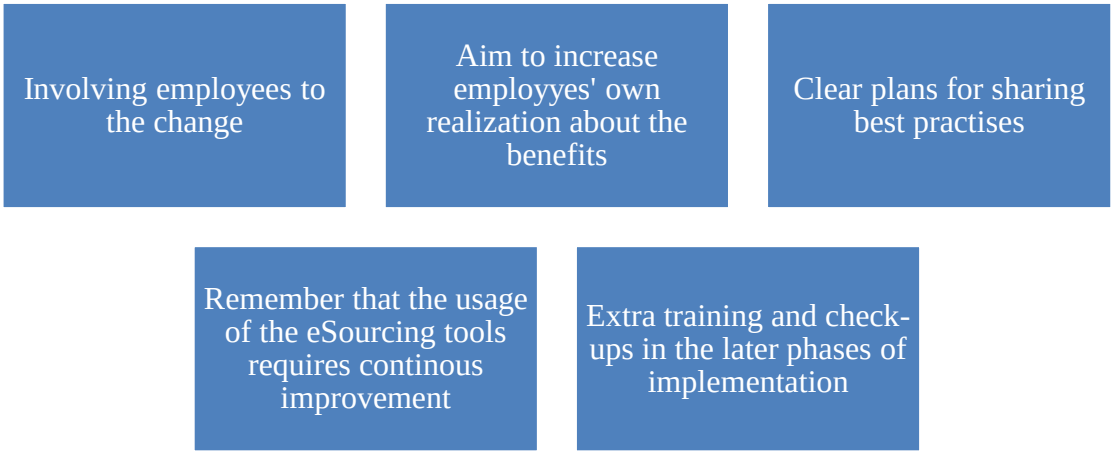

Figure 19. Tips for implementation given by Company Y.

6.2 Company Z

Interview 3:

Company Z has also a broad procurement unit, which is organized according to business segments of the company. The annual spend is approximately 2 billion and the company has around 30 strategic purchasing employees. The eSourcing platform has been at use for almost ten years. Company Z mainly uses electronic RFx's and electronic auction modules of the system. There is over 100 users of the eSourcing platform but not all of the users create events in the system. Some of the "users" are internal stakeholders of the company, who are invited to see the ongoing events. The use of the tools varies considerably according to different sourcing units. Some units use the tools a lot and some do not use the tools at all. The reason for varying amount of usage is most likely related to the training and guidance to use the system. Since the system has been at use already for a longer time, some units might have started to use it more to begin with and some units were slower in the adoption and maybe there is not enough skilful employees in regards of using the tools, who would teach other to use it. In addition, Company Z does not have any systematic or measured targets for utilizing the tools, which is why it is up to everyone's own decision to either use the tools or not. However, Company Z is now aiming to increase the utilization rate of the tools and thus is creating some additional training material and providing internal support and trainings for the employees that want to start using the system more frequently.

Since the electronic sourcing system has been at use in Company Z already for so long, there were not any suitable persons that could be interviewed from the original implementation project team. Interviewee 3 has been using the eSourcing tools more than many other users in the company and was for example currently volunteering to help in organizing internal training and materials for the other users.

To what types of RFxs does the system best fit to?

The electronic sourcing system can be used to all kinds of RFxs. There has not still been purchases, to which the RFx- or eAuction tools could not have been used in Company Z. As an example, complex RFQ matrixes can be made in the platform, although those are first

created in Excel and then converted into the system for gathering then the replies from the suppliers. The efficiency and time saving-benefits increase while comparing the answers and analysing results of the tenders, since the results are then in a same place and in coherent form rather than in different emails or excel sheets.

Where eRFx module can be used in any case, the eAuction module should be only used when the goods that are being purchased, are standardized and have very clear specifications. There should be also several potential supplier-options available when making electronic auctioning so that enough competition exists between the suppliers. eAuction should be also used when the price is the biggest determiner in the supplier selection. Although, there are also other factors that can be emphasized in eAuctions as well besides the price. For example suppliers that have been performing well and whom with the relationship has been continuous for several years, can be given additional weighting during the auction.

What are the realized benefits of the eSourcing tools?

The realized benefits from using eSourcing tools are time savings and the easiness to use the tools so eventually the easiness in the tendering process. Another important benefit is that all of the documentation can be found from the system and the data is easily accessible. Since the eSourcing system also provides a messaging functionality, mass communication for the supplier is possible. Messages and data is easily accessible and identifiable, for example the user is able to check when messages have been sent and to whom. The utilization of the tools also create transparency among the cross-functional teams since internal stakeholders are also able to see the on-going events through the system. This internal transparency also creates opportunities to give support and sparring between colleagues.

Tips for the eSourcing usage

Interviewee 3 provided also tips for the usage of the eSourcing platform. In Company Z several different types of eRFxs are used during a single tendering process. For example, in the first phase of tendering, for example RFI can be used to collect information about the interest to participate in the tendering process and later on other RFx types can be used to

collect the prices and other relevant data. RFxs can be also used after the negotiation phase to gather for example specified offers. Typically, Company Z uses at least two events during a tendering process and sometimes even as many as ten events. It was also pointed out that the important part of using the sourcing tools in beneficial ways is the fact, that the users are able to ask the right questions through the RFxs and receive the intended answers (receive information that is needed).

One important recommendation by Company Z was to have an appointed main user of the platform, who would take care of the creation of new users in the system, providing access rights, adding and checking the templates (e.i Code of Conduct and other files) to the platform. The main user could also act as the support person after the initial implementation phase and be the trainer for the new users.

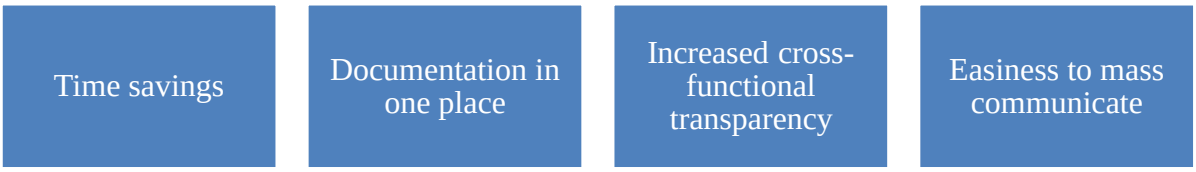

Figure 20. Realized benefits of using eSourcing tools by Company Z.

6.3 Company A

Interview 4:

Company A has a broad procurement unit which consists of indirect and direct sourcing units. Company A initially started using the eSourcing system already in 2009 in the direct sourcing unit of the organization. At that time the indirect sourcing unit did not yet exist since it was only established during 2012-2013. However, the direct sourcing unit only used the electronic reverse auction functionality of the software during the early years of the usage of the system. Still today, the direct sourcing unit of Company A mostly uses only reverse auctions whereas the indirect sourcing unit, which was established in 2013 uses both eRFx and eAuction functionalities.

Interviewee 4 was selected as an interviewee since the interviewee has been involved in the establishment of the indirect sourcing unit of the Company Z and had a broad prior experience in working with different types of electronic sourcing systems and tools.

What is the current situation of the usage of the eSourcing system?

The sourcing tools are used actively across the sourcing units and there has not been a need to increase the amount of usage of the tools nor to create any bonus systems in order to increase the usage. The usage of the system is at a wanted level in Company A. The usage of the tools has come very naturally at least in the indirect procurement unit in the Company A. Employees have realized the possible benefits of using the system and there is enough personnel with skills to use the tool properly and in beneficial ways. However, it needs to be remembered that the usage of the eSourcing system started simultaneously with the establishment of the indirect sourcing unit so there were no previous systems nor processes in place, which would have been replaced by taking the system into use. Especially the indirect sourcing unit of Company A, was able to start from a clean table and create new working processes that also included the using the eSourcing tools. There are approximately 300 electronic reverse auction events created by the sourcing units yearly and about 50 electronic RFxs per year. It means that a notable amount of the tendering processes are done via the eSourcing tools.

The reason why electronic auctions have a big share of the total amount of the eSourcing events, is that the product categories are so clear and defined, which means that reverse electronic auctions can be easily executed. In addition, Company A has created very clear, transparent and strict rules for the reverse auctioning. The rules are even in a written form and are given to the suppliers as part of a contract attachment in the eSourcing events. The rules transparently clarify, how Company A holds the reverse auctions through the eSourcing system and which are the more specific rules and the award criteria. However, it is important to note that the auctions are only held to suppliers of which any can be actually chosen. Prequalification of the suppliers and the specifications of the products or services need to be specified beforehand. Reverse auctions can be held more easily in the direct sourcing since in indirect sourcing, especially while sourcing services, naturally the price is not many times the only defining factor of the purchase.

What have been the lessons learned during the implementation process of the eSourcing system?

In order for the implementation to be successful, there should be internal support available, meaning that there is a person nearby who can help in creating the events. In Company A there were several people who were handy in using different types of IT systems and those persons eventually ended up as being the main users or admins of the system and thus the internal support network. The sourcing professionals are able to ask for help easily from the close colleagues. The key is not only to have a couple of training sessions from the system service provider but to have an internal support structure and network in place. Interviewee 4 points out that the low level of usage of the system should not be a result from the employees' lack of skills to use the system so essentially the lack of internal support and training.

Another important point, why the implementation went very smoothly in Company A, was the easiness to use the electronic sourcing system itself. In addition, Company A has created for example common templates into the system, which can be easily utilized by all the users. They have for example created a RFI template, which includes questions that are always asked from the suppliers and a list of other question that can be then taken out or added according to the need. In addition to the below mentioned tips, Interviewee 4 mentioned that real tendering cases should be used as early as possible, when training to use the system. People should not be afraid to use the system but rather to be encouraged to try out real RFxs in the system. Communication about the easiness to use and encouragement rather than scepticism is very important. Interviewee 4 states that as in any change project it is always challenging to figure out ways of how the support and involve the employees, which are not as handy in using different IT systems and thus might create resistance to change.

Additionally, Interviewee 4 mentions that if company's mind-set and target is to execute all the tendering processes through the system, it is a heavy change management project which also requires mapping of the processes and moving the entire process to the system. Thus, the top management of the company should be very much involved and supportive in the change management project as well. If all the tendering activities are executed through the

system, it would also require involving for example different internal stakeholders, who would also be required to get familiar with the system.

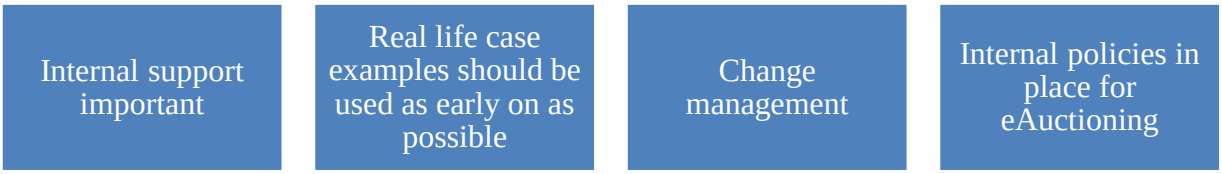

Figure 21. Company A's tips for implementation.

6.4 Company B

Interview 5:

Company B had a different eSourcing system before they changed into the specific system in question during year 2013. One of the main reasons why the change was made, was that the previous system was too difficult to use and not many people were using the old tools. As a result, a change was decided to be made and since then the other system has been in use. As several of the other interviewed companies, Company B uses both eRFx and eAuction modules of the system. The electronic RFx functionality is used the most, electronic reverse auctions are not used that often. When the system was first introduced, there were no strict targets for the usage nor the implementation. However, since recently, Company B has decided that all of the tendering events should be made through the eSourcing system across all the procurement functions of the company. This is because all of the information want to be shared in a same place in case any personnel changes or other needs for accessing the data occurs. Interviewee 5 was selected to be interviewed since the Interviewee 5 had been the project manager for the eSourcing implementation project in 2013 at Company B.

To which purchases can the tool best be utilized?

As can be already understood from the Company B's target to have all of the tendering in the eSourcing system, the tools can be utilized in all types of purchases in the Company B. It is used both in the indirect and direct sourcing alike. Interviewee 5 points out that naturally the eSourcing tools can be most easily utilized when the products tendered are easily comparable. However, there are no purchases to which the tools could not be utilized.

How the trainings to use the system were first organized?

The system service provider held two trainings for all of the users within Company B. The training materials were provided by the system provider. Since there were several occasions, the sourcing professionals were able to think about their own categories and come up with questions for the consultants about real tendering projects of their own. So they were able to receive support from the system provider already early on and some of the scepticism about whether or not the system is able to offer the tools to make the tendering in some certain categories, were minimized. Because of the early support and confidence in the system, some of the sourcing professionals started creating the events in the system right after the training. They had the capabilities and skills to use the tools. Later on, Company B also had a revision training in order to ensure that everyone had enough knowledge on how the system can be utilized the best ways. One aspect that has effected to Company B's implementation project is the fact that there was already previously similar system in use, which has most likely had effect on the easiness to start use the tools.

Tips for the implementation project

The implementation project of the eSourcing system is as any other project management case in organizations. It is very important that all of the steps of the project are communicated frequently and clearly to the employees who are effected by the change. Company B shared a lot of information and communicated project steps to the employees throughout the entire implementation project. A tip for the commissioner Company X is to communicate actively about the implementation project and about the functionalities and benefits of the system itself. Another important tip that Interviewee 5 mentioned is, that during the piloting and

training periods it is important to use real tendering cases, while practising to use the tools. That way all of the sourcing managers understand how the tools are applicable to their own processes and categories and are able to raise any questions or concerns that they might have and receive the support. Furthermore, Interviewee 5 stated that it is important to be very actively "present" during the early stages of implementation and support people, who resist the change or are slower in learning to use the system.

In future, Company B aims to also increase the amount of electronic reverse auctions as well as other events. Electronic reverse auctions can be for example used well to bulk purchases of raw materials. In order to succeed in the reverse auctions, the products and the event itself needs to be specified clearly internally before holding the event for the suppliers. Furthermore, knowledge on how the reverse auction module works and how it should be used have to be also clear before launching any online reverse auctions.

All in all, Company B seems to be satisfied of the eSourcing system and the tools that they have. However, Interviewee 5 points out, that one thing that is sometimes seen as a challenge is the fact that the system is a stand-alone system, which means that several different tools and systems are in use across the sourcing unit. Generally, many of the interviewees think that the future is more in systems that have all the tools needed in the procurement integrated in one system.

Figure 22. Company B's implementation tips.

6.5 Company C

Interview 6:

Company C is still in an early phase of the implementation process of the eSourcing system. The implementation process started after the summer 2016. Company C has had the key user training provided by the system service provider, but have not had any other trainings yet. Company C is now implementing eRFx module of the eSourcing system but aims to also take the eAuction module in use. eAuction module is possibly taken into use during 2017 and Company C is also considering the usage of the Supply Base Module of the system. The project manager of the eSourcing implementation in Company C, has a very clear vision and action plan for the upcoming and ongoing implementation. Company C does not yet have set hard targets for the current initial implementation phase but aims to set some targets for the year 2017. Interviewee 6 was selected to be interviewed since the interviewee was the project manager for the implementation project.

How was the trainings for the system organized?

Before the decision about the specific eSourcing service provider had been made, there was already a roadmap created at least three years ago where targets to take eSourcing tools into use were set up. Since it was decided already earlier on, some preliminary information about eSourcing tools were already provided to the employees some time ago. The decision to use the system was not made at a quick phase. Since Company C had already previously decided to start using eSourcing tools in the year 2016, the project manager, organized some initial heads up- info sessions to the employees about the general benefits of the usage of eSourcing tools. Interviewee 6 showcased an internal logistics case to emphasize and create concrete examples to the employees about the possibilities and benefits of the eSourcing tools. This can be seen as an important step in the implementation since positive communication about the tool was already given before the actual implementation.

After the specific eSourcing system had been selected, Company C had training for the selected key users provided by the system service provider. The project manager had given the key users responsibility to go to their own teams and act as advocates of the system and

educate others about the tools and the system's functionalities. According to the Interviewee 6, some key users were actively enhancing the usage of the system but some have not done any concrete actions in order to teach others to use the system. However, Interviewee 6 thinks that it is very important that most of the employees would think about their own work tasks that how and what they could possibly execute in the system and really consider their own processes before having the system training provided by the consultants.

Since most of the sourcing unit's employees in Company C are already familiar with the system at some level, the aim is that it is easier to think about the real cases that should be put to the system and then during the system provider's training, ask relevant and more detailed questions. As also many other Interviewees have emphasized, it is important that the employees realize the benefits of the system by their selves and the best results can be gained if the system is used in more complex RFxs and in order to be able to build more complex RFx, some help from the consultants could be utilized. By utilizing the help early on, the employees are capable to build up more complex real life cases and gain understanding on how to analyse the results.

The Interviewee 6 stated that at its simplest the eSourcing system is just a substitution channel for sending emails and files between buyers and suppliers, but at its best the system can be used to also compare and analyse quantitative and qualitative data. Sourcing managers are making that analysis on continuous basis by their selves but the system could be able to help in the comparison phase of the tendering process if it is used in a smart way. Smart way of using the tools requires really pondering the questionnaires and putting some additional effort in building up the events in a way that wanted answers and results are gained though the system from the suppliers.

Tips for the implementation

One challenge point during the implementation process is, that employees really need to learn to use the system by trying the system out. "Learning by doing" is seen the way how the system can be broadly implemented. The real challenge is to communicate to the users that they need to try the system out by their selves and not only trust the additional training provided. Interviewee 6 also encourages to use the Quick Call functionality of the system

during the implementation as much as possible. The implementation process should however be done in reasonable phase so that the employees do not feel forced to use the system and thus create too much of negative feelings towards the usage. Despite the reasonable phase, some hard targets can be still set so that there is some direction on where the implementation is heading.

Interviewee 6 states that there are typically some excited people who get on board with the change more easily and some people get on board only after hard targets and metrics are established. Resistance to change is always present in these kinds of changes so normal change management procedures have to be in place in order to ensure that most of the people are on board. Ways to get people on board is for example to showcase internal tendering cases when first communicating and educating employees about the system.

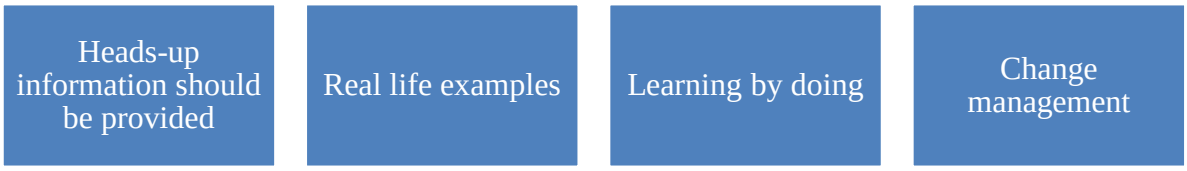

Figure 23. Company C's implementation tips.

6.6 Summary and analysis of findings

This section aims to summarize and analyse the most important findings of this study and to provide a comparison of the information gained from the interviews of the reference companies. The summary and analysis section presents similarities between the reference companies and also some relevant differences related to the usage of the eSourcing system. Table 2 below summarizes some of the basic information about the usage of the eSourcing system in the interviewed companies.

Table 2. Basic summary of the findings.

	Company Y	Company Z	Company A	Company B	Company C
Years of using the system	<1	9	Direct: 8 Indirect: <3	3	<0,5
System providers training/own training	Own	N/A	System prov.	System prov.	System prov. / Own
Usage of eAuctions	No	Yes	Yes	Yes/No	Yes/No
Number of main users (admins)	N/A	2	2	2	1
Number of active users	40	40	Indirect = 15 Direct N/A	50	40
Global usage	No	Yes	No	Yes	Yes

As can be noted from the Table 2, most of the companies have used the electronic sourcing system for less than three years so the use of electronic sourcing systems is somewhat a new phenomenon in many organizations. Moreover, it could be said that the usage is still in its early phase and maturity in most of the companies. What is also notable from the Table 2 is that, the size of the sourcing units and active users of the eSourcing system is very similar across all of the interviewed companies. Typically approximately 40 people use the eSourcing tools regularly in the organizations globally.

Most of the companies use the eRFx module and also electronic reverse auction module of the system. The eSourcing system provider also offers several other eSourcing modules such as spend analytics and contract management but most of the interviewed companies only use eRFx and eAuction modules. Some of the companies have taken also the Supply Base Management module also to use from the service provider or are considering to start using that module also. Some companies also referred to contract management and spend analytics

modules during the interviews but it was very common that the organizations have other systems in place for contract management and spend analytics. All in all, the trend was that there is several digital systems that are being used to cover most of the sourcing related processes. Reason for using several stand-alone systems was that integrated systems were seen as too complex and difficult to use. However, many organizations hoped that there could only be one integrated system that would be able to cover the entire sourcing process. Since the systems and tools used develop continuously, it might be that the shift is later on towards one integrated cloud based system that is easy to use and have all the necessary functionalities.

Based on the information received through the interviews, most of the companies were very pleased with the current situation with the eSourcing system or were going to broaden the usage. Many of the companies had been successful in the system implementation, although it has to be pointed out that some of the companies were still in the early phase of the adoption so any clear statement about the success of the implementation projects cannot yet be given. All of the users were satisfied with the specific eSourcing system and there were no complaints about the service that the application provider had provided nor did the system itself receive any special criticism.

Besides the above mentioned basic similarities in the use of the electronic sourcing system, there are also several more specific similarities and differences that should be pointed out. The main finding of the interviewed companies' implementation projects was, that most of the companies have a clear vision, leadership, change- and project management in place for the eSourcing tool implementation. Change management was seen as one of the key factors in succeeding in the implementation and the change could be managed by internal communication and training according to the interviewees. Figure 24 presents findings related to the leadership, vision and target settings of the interviewed companies.

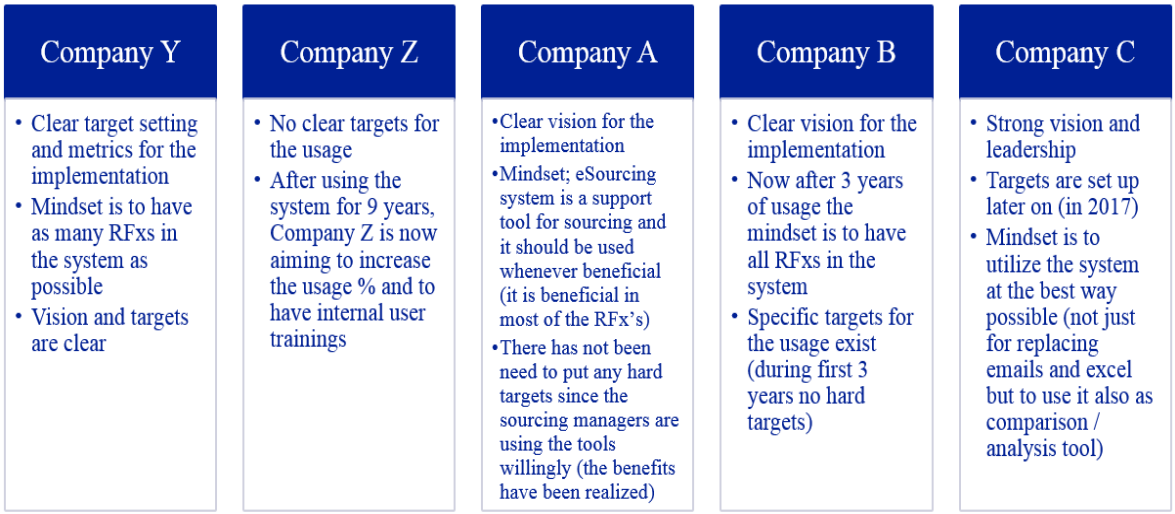

Figure 24. Summary of leadership, vision and targets of the interviewed companies.

Furthermore, as stated the implementation success of the system is very much dependent on change and project management and also internal communication. Since the implementation of the system itself it is not difficult because of the easiness to start using it, the implementation project only requires right type of management and communication about the changes. Change should be managed so that benefits of digitalization of the tendering process is communicated to the employees already early on and continuously during the implementation. Besides communicating the benefits, there should be concrete examples specific to every organization on how the system can be used and how it effects to the current processes. All of the interviewees emphasized importance of positive communication, showcasing examples and thus creating concreteness for the employees. Employees need to be involved in the change early on and they should be supported by proper training. Most of the companies had used the help of the ASP in the training process, which could be seen the best practice.

In addition, a very important success factor and best practice in the implementation process across all the example cases was that there was assigned personnel to act as key users, meaning internal support, for the other users. All of the companies also emphasized the importance of the internal support, which should be easily accessible and as local as possible. All of the case companies had typically a couple of key users, who were responsible for helping other users in creating their first events in the system, or sometimes even teaching others on how to use the system entirely. It is always the easiest way for the employees to

go and ask help from a colleague nearby, who also knows about the organization specific needs and simultaneously knows how the system works. One important practice is also to share the knowledge between the users so that tips for utilizing the tools can be shared and thus the smart ways of benefitting from the usage of the system can be found.

One of the most important findings and realizations of this study was, that many of the companies emphasized that the benefits of the eSourcing system can be truly gained if the users are able to have a "think outside of box"-mentality when using the system and truly find own beneficial ways to utilize the software. In order for the users to reach full potential of the usage of the system, they need to realize the benefits of the systems by their selves. The system can be used to simply execute RFxs in the system instead of using emails, but if it used wisely, a lot of qualitative and quantitative data can be gained, which will then help the sourcing professional throughout the tendering process. In order to employees to succeed in realizing the benefits of the tools, change has to be managed in a proper ways.

If the eSourcing system want to be used in a way that it provides detailed qualitative and quantitative data, it means that the sourcing professionals have to really brainstorm around the system and its different functionalities, and think how they should establish the events through the system, and for example which questions to ask in the questionnaires, in order to gain enough informative answers from the suppliers. The system can be also used just for simple RFxs or reverse auctions but then the benefits of using the system instead of using simple emails and excel sheets, are not as high. The more complex the purchased goods or services via the eSourcing system are, the more benefits can be most likely gained by using the system.

Figure 25 summarizes the key success factors of implementation projects based on the reference interviews. The main aspects that were brought up was the internal communication to the employees, management of the change, importance of internal training, enhancement of employees own realization of the eSourcing's benefits, sharing best practices within the organization and showcasing successful eRFxs and eAuctions in order to increase the awareness and understanding on the benefits and functionalities of the system.

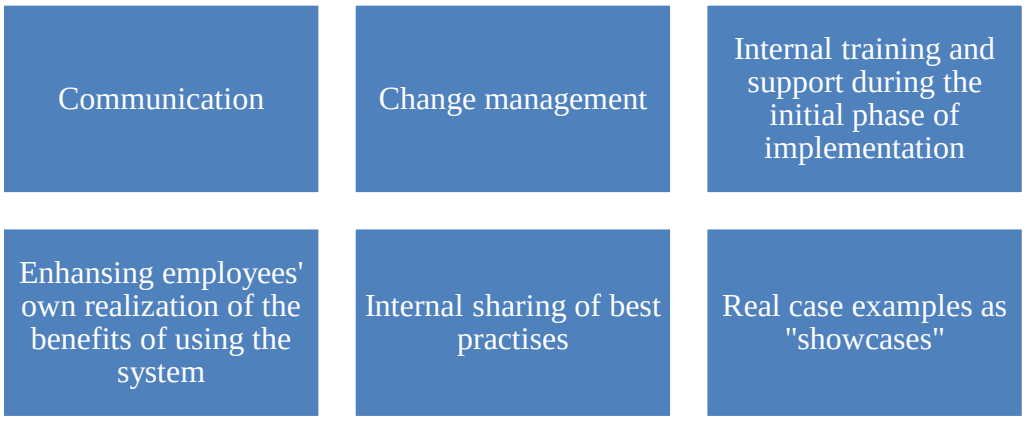

Figure 25. Summary of the tips of reference companies for the implementation of the eSourcing system.

The main differences between the interviewed companies are related to the target setting and metrics of the usage. Some companies had very defined and clear targets for the usage of the system whereas other companies felt that no targets nor KPI's were needed. However, the companies that did not have hard targets did not necessarily have as active usage of the system compared to the ones who had.

In addition to the differences in the KPI's, there was also differences in the attitude towards eAuctions. Although, almost all companies were using or going to start using the eAuction module of the system, it could be sensed that many of the interviewed companies were quite cautious with starting to use eAuctions. With two of the interviewed companies the usage of eAuctions were seen as very beneficial and a good thing and specific rules and policies had been established for using the eAuctions.

Another difference in the implementation and usage of the eSourcing tools was the attitude towards the so-called position of the tools. Some companies perceived the system just as a support system for sourcing and the tendering process whereas other companies had decided to execute as many RFxs through the system as possible. Some companies targeted to use the system in all tendering and some companies recommended the usage when it was seen necessary or enough beneficial.

6.7 Driving and restraining forces of implementation in Company X

Below Figure 26 portraits the main forces driving and restraining the eSourcing system adoption success in Company X. By observing the implementation in the project team and in the pilot group, the main forces were identified. Some of the below listed forces were already addressed during the implementation project. The identified restrained forces are skepticism towards eSourcing, which was especially visible when the eSourcing implementation project started. The level of skepticism has decreased during the implementation process in relation to the communication about the system. Restraining forces also include high expectations. If the perceived benefits of the eSourcing are very high and it is expected to provide miracles, it might hinder the adoption of the system. It needs to be noted that above all eSourcing tools are able to deliver operational efficiencies and streamlined processes and thus the actual cost savings can be difficult to measure and quantify. During the implementation phase, there were some unclarity about the real targets of the implementation of the system and uncertainty about the KPI's existed. However, after the feedback from the pilot group and project manager and the information received from the reference interviews, some initial decisions about the KPI's were established.

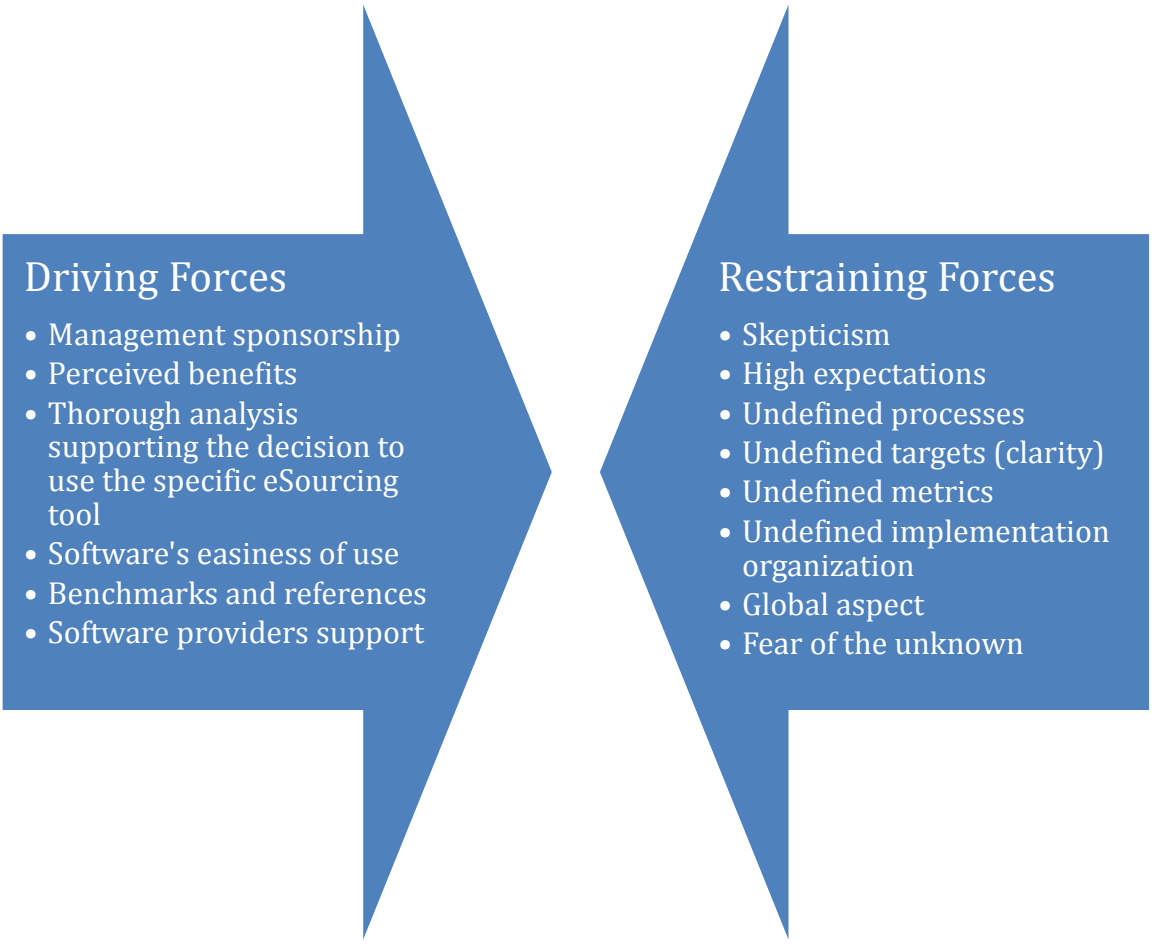

Figure 26. Force Field analysis on eSourcing implementation.

Driving forces of the implementation success have been the involvance of the top managers and steering group, thorough analysis of which eSourcing system was taken into use, the support received from the ASP and also the easiness to start using the system itself. There has been also a vision all along, according to which the eSourcing tool is taken into the use globally in the strategic sourcing unit and that the usage of the system should be as high as possible. Company X is very likely to succeed in the implementation of the eSourcing system if it continues to invest time and resources to the best practices in the implementation, which are comprehensive change management, continuous internal communication and internal support and trainings.

6.8 Suggestions for the implementation

In this section more specific suggestions for the eSourcing software implementation for the Company X are given based on the tips received from the reference companies and reflections from the literature and by observing the implementation and change process internally. The aim is to provide concrete and specific suggestions that would help the commissioner in the overall implementation success. Figure 27 emphasizes important steps in the implementation process, especially from the change management perspective that can be recommended for the commissioner. The commissioner has already taken and accomplished some of the steps portrayed in the Figure 27, but some steps still need further work.

Figure 27. Implementation steps.

At this point of implementation Company X is still lacking further communication about the vision and mind-set about the implementation of the system. There has been a general heads-up information session, where benefits of the system and vision of the use of the system was

communicated. Communication was done in the early phase of the implementation project in September but since then, there has not been any further communication on what is the realistic mindset towards the implementation in more detail nor clear targets have not yet been communicated to all sourcing personnel. Questions about targets, metrics and the broadness of usage still needs further discussions and considerations by the management. After the decision has been reached, there should be communication for the future users of the system and it would be beneficial to communicate it broadly to all global units as soon as possible.

However, based on the benchmark interviews the suggestion would not be to make any so-called set hard targets for the implementation yet at the first phase of the implementation but rather have a vision or direction of what the state of implementation should look like during the first year of usage (2017). Even though some decisions about the targets and direction has most likely been already made, but it is not yet clear enough for all employees. When there is unclarity about the direction where the implementation and the usage of the system is heading, it is difficult for the future users to prepare to use the system. Moreover, after the initial adoption phase it is important to make some hard targets in order to ensure the broader usage of the system. It is easier to make the hard KPI's when there is some type of experiences of the usage of the system.

Furthermore, one important aspect that was discussed a lot during the interviews was the importance of communication. There cannot be enough communication during change management projects, which is why there could be more communication from the project team to all other employees about the system and the implementation project. Some of the future users are still very unaware about the eSourcing system itself and what it should be used for, so it would be beneficial to tell basic knowledge and benefits of the system already before the actual mass roll-out to all employees. Although, Company X has already had one heads up meeting for all sourcing employees, still constant communication is required and through communication internal buy-in can be build up. Communication about the changes also helps with smoothing out the resistance to change and questions that the sourcing managers might have, can be addressed already early on so that they do not develop unnecessary skepticisms towards the electronic sourcing processes.

In addition to the importance of communication, many of the case companies emphasized also the importance to use real life case examples as early on as possible to showcase the positive aspects of the system and to create concreteness for the employees. One suggestion would be to use the piloting group's real life test cases to showcase the system for the other users before the actual mass trainings. When enough concreteness is communicated and showed, it helps to build the internal buy-in and understanding about the system. Showing internal real life examples might also decrease the resistance to change and it might also arouse questions and possible challenges that can be already be answered to and solved internally before the mass roll out. If the future users, who are not in the pilot group, are able to have basic knowledge about the system they are able to understand the trainings better and unnecessary time to be spend learning about the system could be avoided. The reference companies emphasized the importance of employees' own realization about the benefits of the system and that requires that the employees put some time and effort to consider their own tasks, processes and categories. Showcasing the pilot group's cases also rewards the pilot group for their time and effort put into learning to use the system and it is also a learning point for them since they are able to discuss the cases further with others.

Another suggestion is to have some type of brainstorming session between the pilot user-group about the best practices to use the tools and the different functionalities of the software. During the brainstorming session, the pilot group could go through some of the test cases and discuss those further in order to find out better ways of creating the events and maybe have some new ideas. It is beneficial for the Company X that best practices are shared internally and if the best practices are already shared during the piloting phase, then the sharing of internal information is easier later on, and also cohesive practices are created already during the piloting period before the actual mass roll out and trainings. Company X has global sourcing units, so it might be so that some units already have valuable knowledge about the system that the other users are not yet aware of. Sharing best practices and brainstorming new ideas about the usage, helps in the smart usage of the system and avoids unnecessary mistakes. Company X could have first brainstorming in smaller group meetings between the pilot users and after the piloting period in a bigger global group. The Interviewed companies had established some forms of sharing the best practices internally.

Some of the Interviewed companies organized the mass roll outs by using the system service providers training and some companies used the pilot group or the key users in training of others. Both methods of trainings have been successful in the interviewed companies. The best option for Company X would be to have external training for all users since there is currently not enough resources for the pilot users to train all of other users in proper ways. However, before the mass training it is beneficial that the future users would already have information about the system (information gained for example from the showcases) so that they are able to ask relevant and more specific questions from the consultants during the mass training. It is important that everyone would already understand the basic idea and functionalities of the system, where it can be used for and also that they would have considered, what parts of their tendering processes and categories they could execute in the system. If there is not any information given prior to the trainings then the implementation will take a longer time, more resources since then the people ask more questions from the internal support persons and there could be more costs since the consultants need to be used more often than maybe planned.

There should be appointed key users and admin users for the eSourcing system in Company X, so that there is always internal support available nearby. The Interviewees pointed out that people usually need help while preparing their first eSourcing events in the system so help needs to be easily available so that the usage of the system is not depended on the knowledge on how to use the system. According to own observation and experiences as pilot user of the system, many of the near colleagues will ask help or guidance from each other during the creation of first events. There will be most likely an increased amount of help needed after the mass training and when the sourcing managers will create the first events by their selves. It is important that Company X also takes into account that there is enough resources available to provide the internal support so that, when help is needed, there will be someone helping right away.

Company X should decide, who the capable and willing internal support users could be and have at least a couple of people per region as support persons in order to ensure that there is enough local help available. The threshold to start to use the system has to be as low as possible to ensure the broad utilization of the tools. One aspect to remember is also to ensure

that the key users or support persons have sufficient capabilities to advise the other users and that they feel enough familiar with the system themselves.

There should be also some common policies and guidelines established regarding the system during the piloting phase since then it is easier to have the mass roll-out. The piloting group's and the project leader's responsibility is to ensure that those are established during the piloting period. One important aspect to consider also when starting an eSourcing system implementation project is, to establish a common channel for sharing experiences between the pilot group and have some type of roadmap and time schedule for the pilot group to follow. Figure 28 summarizes the best practices in the eSourcing implementation for Company X. The recommendation of implementation steps is a combination of success factors that were presented in the theory and tips that were obtained from the reference interviews.

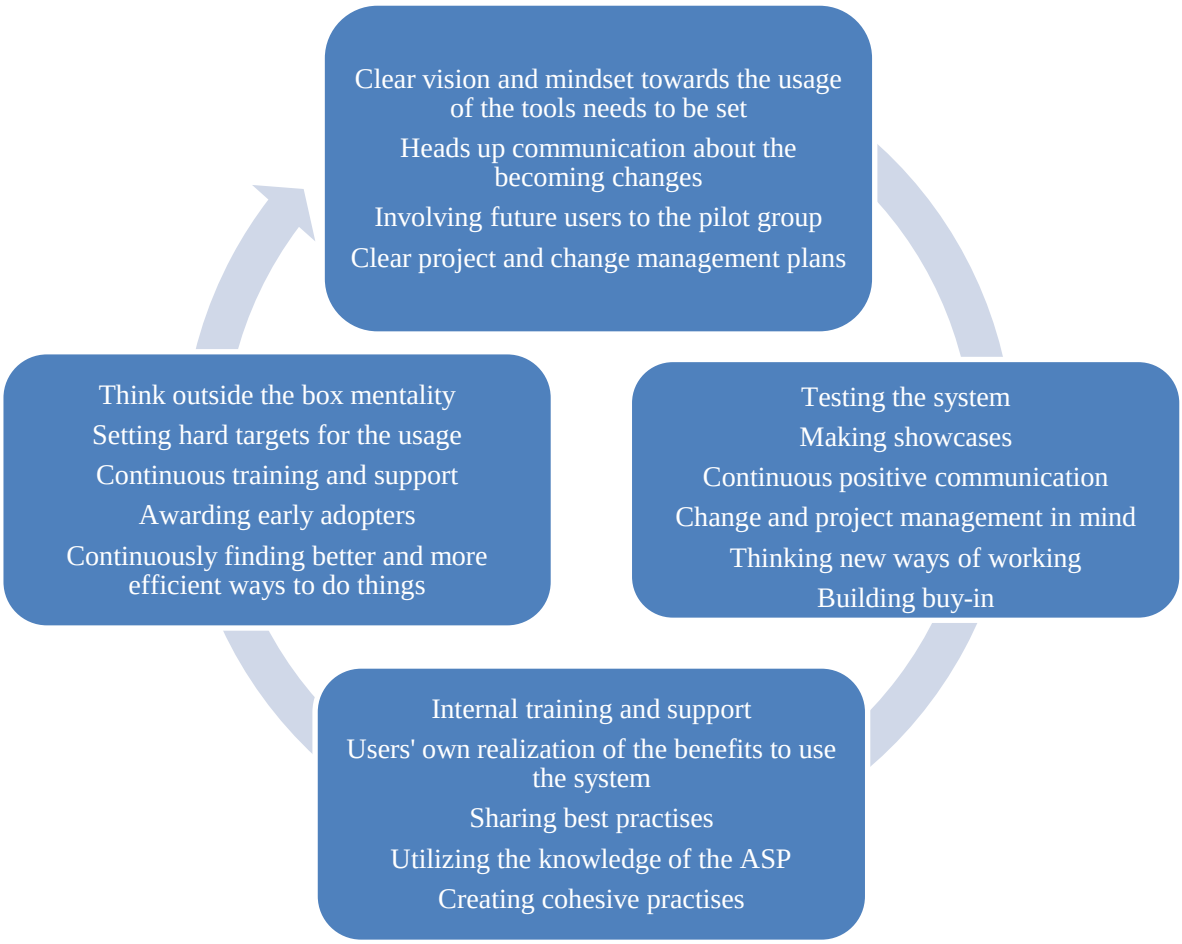

Figure 28. Recommended steps towards successful eSourcing system implementation.

One important point that did not come up as much during the reference interviews was the attitude of the organization's suppliers towards the use of eSourcing system. During the interviews, many of the Interviewees stated that the suppliers has been somewhat neutral towards the usage of eSourcing tools and there had not been any specific issues arousing from the supplier point of view. However, during piloting period, it was notable that many of the commissioner's suppliers perceived eSourcing as only eAuctioning and thus there was also skepticisms to use the system also from the supplier's side. Despite the fact that there was a notification letter sent out to the suppliers who were invited to the RFxs during the piloting phase, many of the suppliers thought that eSourcing replaced entirely for example negotiations and thought that price was the only determining factor when choosing suppliers. It might be that the industry of the commissioner also effects to the reaction of the suppliers although not all of the reactions were negative. Some of the suppliers had used somewhat similar eSourcing systems previously. It might be useful to send out letters of notifications to the main suppliers of the commissioner before the mass roll out. This could possible decrease the somewhat negative perception of eSourcing.

After the trainings have been organized organization widely and the mass roll out is executed, it would be beneficial for Company X to encourage the users to have "think outside the box mentality" and emphasize also the creative and analytic ways to use the system. Whenever changes occur, people tend to have suspicions on how the system fits to current processes of doing, which is why it is important to have positive encouragement to find new ways of working. Some of the interviewed companies used the system also for example for internal questionnaires or supplier audits etc. However, the main focus should be in finding best practices for the tendering processes in the beginning and then later on getting used to utilize the system in more complex ways.

After the mass roll out, it has to be checked that all the global units have somewhat similar and cohesive ways of using the system and create metrics for measuring the implementation maturity and level of usage across the global sourcing function. Also, hard numerical targets need to be set, after there is a broader understanding of the realistic deliverables that the system is able to deliver. Another thing that needs to be remembered is that positive communication and user experiences need to be emphasized during the initial implementation phase. It is important for Company X also to make some plans for the

implementation steps after the actual mass trainings. Implementing the eSourcing software requires check-ups also later on. It could be also beneficial to think about ways on how the maturity level and successfulness of the implementation could be communicated to the users to also keep them updated. The usage of the system will be continuous and to learning to use the system in smart ways requires continuous effort and actions from the organization in order to benefit most from taking the system in use in the first place. To truly succeed in the implementation process, careful and thorough management of the change should be done in addition to continuous internal communication and informing.

7 CONCLUSIONS

This chapter will present the final conclusions, include evaluation of reliability and validity of the research and provide some limitations as well as suggestions for future researches.

The purpose of this study was to find out, through examining existing literature of eSourcing and conducting reference interviews, how other businesses have adopted the eSourcing system and what are the common success factors and best practises in the implementation process. In addition, through this research it was examined of how to best use eSourcing tools and what benefits can be gained by digitalizing the tendering process. This study presented success factors and challenges in the eSourcing system implementation projects in the reference companies and thus provided suggestions of best practises for the implementation project of the commissioner. The results of this study provided assistance and concrete recommendations for the commissioner during the implementation project and through the insights gained through the research some of the common success factors in eSourcing implementation projects was able to be imitated. Detailed information about adopting eSourcing tools was needed since the current scientific articles lacked results of implementation of specifically electronic sourcing tools in private organizations. Moreover, more hands-on recommendations for the successful adoption was needed.

It is clearly notable, that the current trend is now to adopt different types of electronic systems in procurement and the digital sourcing tools are seen as one important enabler for sourcing professionals to shift away from manual time-consuming activities towards more strategic tasks like supplier relationship management and increasing broad supply chain market knowledge. This reflects well to the overall trend in supply chain management where the direction has been moving away from transactional buying towards building more complex supply chains and relationships and analysing those through data. Electronic sourcing tools are adopted into procurement functions to support sourcing professionals for example in the decision-making and analysis processes. The electronic tools enable sourcing professionals to save time and thus allocate resources to other tasks. Electronic sourcing tools are also able to make data utilization easier, which will be growingly important now and in the future. Different electronic systems effect notably to procurement employees' day to day activities and work tasks and eSourcing tools shape sourcing processes and old ways of doing things.

Moreover, as can be summarized both from the existing literature and reference interviews electronic souring tools are able to modernize and increase the efficiency in sourcing and especially in the tendering processes. Electronic sourcing tools will also increase the transparency within the organizations and make documentation much easier. In addition, by using eSourcing tools companies are able to share and analyse data more easily, have cohesive and streamlined tendering processes across the units while simultaneously leaving an audit trail and most importantly gaining cost savings.

Nowadays it is not anymore a question whether or not companies should adopt electronic sourcing tools but how the adoption is done in a successful way. Since electronic sourcing tools are really valuable for organizations and many companies have already taken systems in use, it is important that those are really implemented well into the organizations and enough resources are put in place in order to learn how to use the tools properly. Organizations make big investments into using the eSourcing software, so making sure that the tools are utilized in beneficial ways is important.

Based on the findings gained through the interviews it can be said that internal communication, change- and project management, internal support networks, showcasing real RFxs and sharing best practises, are the key success factors and best practises in eSourcing system implementation process. Managing people is the most important aspect while trying to succeed in the implementation of eSourcing systems rather than focusing on the technical aspects of implementation. Findings indicate that organizations should have a clear vision for the implementation and that there should be some type of change and communication plans in place. Employees should be well trained for using the tools and they should be supported continuously during the early phases of the implementation process. Some of the results also indicated that target setting and creating clear KPI’s is important if trying to achieve broad adoption of the eSourcing system. In addition to the key success factors, also the selection of the right eSourcing system is in an important role. Without a system that is easy to use and benefit from, it is much more difficult to succeed in the implementation and especially gain the benefits seeked. However, the key is in the change management and making sure that enough communication and training is provided to overcome the possible resistance to change.

Furthermore, according to the results gained from the interviewed companies, eSourcing tools can be used to tender all types of purchasing categories since the system itself is flexible enough and has different functionalities to conduct different types of RFxs or reverse auctions through it. However, according to the results, the usage of the tools is most beneficial, when the purchased category and the event is complex. If there is enough complexity, it created more operational efficiencies like time-savings. A key in being able to truly gain bigger benefits from using the tools, is the user's own realization of the benefits of using the software, positive mind-set towards changing old ways of doing things and also to have innovative think outside the box mind-set while creating different tendering events. The software can be easily used just as a replacer of emails, but it offers also possibilities to utilize it in much more advanced ways and thus gain more benefits. It is organizations' responsibility to offer proper training and guidance to use the system, but it is also a responsibility of single employees to learn to use the tools by trying it out by their selves. Maturity of using the system will eventually grow over time and as in other things, there will be a natural learning curve in the adoption for each individual.

7.1 Reliability and validity of the research

Reliability and validity of the study refer to the repeatability, creditability and generalizability of the results. Validity is concerned whether the findings are really about what they appear to be about. Reliability of the study can be linked to the way of how data has been collected, processed and analysed. (Saunders, Lewis & Thornhill 2009; Hirsjärvi et al. 2013) The main purpose of this research is not to provide generalizable results but rather provide in-depth understanding and concrete recommendations for the commissioner company. The research focus was generated from the need of the commissioner and thus internal interviews, discussions, observation and meetings were conducted in order to have the right research focus and answer to the research question. The sampling for this research was five different organizations and professionals, which can be considered to be a good sample size for a qualitative research. All of the interviewed persons had knowledge about the topic and told their experiences in reliable way and according to their best knowledge. The interviewees had similar expertise and relation to the studied theme. Anonymity of the

interviewed companies and the commissioner alike also contributes to the reliability of the research since they were able to express their opinions without the fear of publicity.

Furthermore, number of interviewees increased the reliability of this research and as could be seen from the findings, the interviews resulted in similar results, which can be stated to express the reliability. In addition to the sample size, also the data collection method used can be stated to be a reliable procedure since all the techniques used were somewhat similar to one another across all the interviews and the data collected was analysed in a same way. Data was analysed in a matter that did not modify the gained insights. Raw data was handled in a transparent way by transcribing the interviews and by analysing the interviews in detail during the study. The data collection methods, data collection itself and analysis phase was also described in detail in the methodology part of this study, which increases transparency of the research and thus contributes to the reliability of the study.

However, it needs to be noted that this study only focused to a certain eSourcing system and that over time the experiences and thus the findings could vary. In addition, the companies that had adopted the eSourcing tools, were still in a quite early phase of the adoption maturity and thus the finding could be also different if the same companies would be interviewed again later on. Although, both empirical findings and academic journals indicated similar findings and thus the belief is that the results would remain quite similar even though the companies would be interviewed later on. The purpose of this study was to find best practises in the eSourcing implementation process thus companies that had just gone through the same process wanted to be interviewed rather than focusing on the repeatability of the study.

7.2 Limitations

Most of the interviewed organizations were large Finnish companies with sourcing spend in billions. This study is limited to only research the implementation process in bigger companies and sourcing units of around 50 employees. If the study would be executed by interviewing smaller companies, the best practises of the eSourcing system implementation might vary from this research’s results. In addition, this study focused only to one specific electronic sourcing system, and eRFx and eAuction modules of that system. It could be that

if some other software would be under examination, it would have effects on the findings of how the implementation should be carried out and what is the best way to use the system. However, overall the findings are very similar between the literature and the empirical part of this research and even though there are different types of systems available, many times the functionalities of those systems are similar. Moreover, this study is limited to cover solely B2B eSourcing and it specifically covers only the tendering process in sourcing.

7.3 Future research topics

An interesting viewpoint for future research could be to study suppliers' point of view in the usage of electronic sourcing platforms and what are their opinions on the easiness to use the tools and their perceived benefits for the usage. It would be also important to investigate, how much the suppliers activity or inactivity in the electronic sourcing system effects to the possible benefits for the buyer company. One area of examination could also be how to involve suppliers into the change management and implementation of different electronic sourcing tools and how the communication to suppliers should be handled so that their support and buy-in is also ensured. Another future research could be also to focus on how the usage of the RFx's and eAuction effects to the buyer-supplier relationship and whether or not it has an effect to the lead time of the tendering process, communication and initialization of a purchase order.

A third suggestion for future research could also include detailed measurement and documentation of current sourcing processes and then after the adoption of different types of electronic sourcing tools to see whether or not the lead time and efficiency of the tendering process changes. There is not that many specific numerical data and analysis on how much time savings can be saved by using the tools and how much the tendering process lead time can be reduced. Although the reason being is most likely that different organizations have different types of processes and the time saving is difficult to measure. Another area of research could also be, how different types of purchases effect to the implementation success of electronic sourcing and whether or not all types of purchase categories are able to bring benefits to the buyer companies.

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APPENDICES

Interview questions

Background

Is system X still at use in your company?

Is the system used globally in your company?

How long have you used eSourcing tools?

Why was this certain software originally chosen?

Usage and targets

Which sourcing lines (direct / indirect, logistics etc.) use the eSourcing tool in your company?

Which sourcing lines use the eSourcing tool the most?

What are the targets in using eSourcing tool?

What is the approximate utilization rate of the eSourcing tool?

Did you have a target utilization rate before the roll out of the system?

Has the usage of the system been a) growing b) decreasing c) stabilized during the time?

Approximately how many super users do you have in your company?

In which sourcing processes does it “fit” best?

Lessons learned

What have been the biggest learnings in the implementation process of the eSourcing system?

Which have been the biggest pitfalls in the implementation process of the eSourcing system?

How about after the roll-out?

Which mistakes / challenges could / should be avoided before and during the implementation?

What could have been done differently in your company while adopting the tools?

What have been the realized benefits of the eSourcing tool?

Has the benefits been measured?

Is there any realistic estimate of the time savings?

What concrete benefits have been gained from using eSourcing tools?

What could have been “done more” in order to reach the “full potential” in the use of the system?

Implementation process

Were you involved in the implementation project?

How did the implementation process of the electronic sourcing tools go in general?

How was the implementation process managed?

How long did the implementation process take?

How many persons were involved within the organization in the implementation process?

Was there a team to manage the implementation?

How much were “key users” utilized in the implementation process?

Did all the users start using the software at the same time or was it done gradually?

What type of tendering processes would you recommend to be used in eSourcing tool?

Has there been resistance to use eSourcing tool?

How long did the users need training in order to be able to use the tools?