

## **LUT School of Business and Management**

Portfolio Models in Strategic Service Purchasing

Matti Munter, 2019

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#### **ABSTRACT**

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The aim of this study is to explore the applicability of purchasing portfolio models into strategic service purchasing. Also, the similarities and differences between traditional and service related purchasing process are to be explored. Additionally, the efficient measurement and metric systems for purchased services are discussed.

The first literature chapter of this thesis focuses on service purchasing process, value creation in service procurement and on the quality aspects of service procurement. The second literature chapter introduces the purchasing portfolios, while the main focus is on the most popular one, Kraljic matrix. The empirical part of this study consists of methodology and the interviews.

The data for this study was collected by qualitative methods, using semi-structured interviews. Six interviewees from six different companies were interviewed. All the interviewees were from organization's sourcing department. The results indicate that purchasing portfolio model, such as Kraljic matrix can be a useful tool for supplier and item or service categorization. However, purchasing portfolio requires additional strategical procurement tools. Hence, organizations tend to modify their purchasing portfolio models. Also, a structured service procurement process was highlighted by interviewees as an efficient approach for service purchasing.

#### TIIVISTELMÄ

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Tämän tutkimuksen tavoite on tutkia ostoportfolioiden käytettävyyttä strategisissa palveluhankinnoissa. Lisäksi tutkimuksessa syvennytään palveluhankintojen ja perinteisten hankintojen eroihin. Tutkimuksessa keskustellaan myös palveluhankintojen mittaustekniikoista ja systeemeistä.

Tutkimuksen ensimmäinen kirjallisuuskappale keskittyy palveluhankintojen ostoprosessiin, arvon luomiseen ja palveluhankintojen laatutekijöiden selvittämiseen. Toinen kirjallisuuskappale käsittelee ostoportfolioita, joista suosituin, Kraljicin matriisi on pääosassa. Tutkimuksen empiirinen osuus koostuu tutkimusmetodologiasta ja haastattelujen aineistosta ja analysoinnista.

Tutkimuksen aineisto kerättiin laadullisin menetelmin, hyödyntäen puolistrukturoitua haastattelutapaa. Tutkimusta varten haastateltiin kuutta eri henkilöä, kuudesta eri yrityksestä. Kaikki haastateltavat tekivät hankintatoimea päätyökseen. Tulosten mukaan ostoportfoliot, kuten Kraljicin matriisi ovat hyödyllisiä työkaluja toimittajien ja tuotteiden sekä palveluiden kategorisointiin. Ostoportoliot vaativat kuitenkin tuekseen muitakin strategisia hankintatyökaluja. Yrityksen voivat parantaa ostoportfolion sovellusmahdollisuuksia personoimalla sitä. Lisäksi strukturoitu palveluhankintaprosessi nousi esille tutkimuksessa, yhtenä merkittävänä tekijänä tehokkaassa palveluhankinnassa.

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In Helsinki, 27.2.2019

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#### 1. Introduction

Services have a significant role in today's business environment, especially, the procurement and purchasing of services has become an increasingly important area for organizations (Axelsson and Wynstra, 2002). For example, indirect service purchasing may have a rather small financial value, but its impact on firm's corebusiness is often rather large, or even essential. Despite the importance of service purchasing, the purchasing related literature and research has been mainly focusing on the purchasing of traditional industrial goods (Van der Valk & Rozemeijer, 2009).

There are less traditional manufacturing organizations and many firms begin to move towards a business strategy, which integrates services and products, or relies solely on providing of services (Lindberg & Nordin, 2008). The managerial attention towards service procurement has increased during recent years. Still, the sourcing phase and the overall strategy for service procurement have had little weight on recent researches, regardless of the fact that its impact on firms' overall success is significant. (Murray & Kotabe, 1999)

Procurement has a major impact on the total cost and profit factors of an organization. Due to these features, more and more attention has emerged towards purchasing strategies, both from research and administration level. (Dubois & Pedersen, 2002) How to achieve and manage the full potential of a suppliers, sourcing, supply chain and purchasing? Lambert et al. (1998) offer three clear steps to tackle the challenges in supply chain management (SCM). Hence, they continue; organizations should define their (1) supply chain network structure, (2) the processes within it and (3) the management features and components. The next questions are, who are the key suppliers or members of supply chain, what processes should be integrated with them and on what level, what is organization's and their suppliers position vertically and

horizontally in the network (Lambert et al., 1998). There are many researches which prove that integration of processes and activities within a network often provide competitive advantages, such as: Dubois & Pedersen, 2002; Lambert et al., 1998 and Flynn, Huo & Zhao, 2010).

In these days, top executives are often well aware of one's core competences in supply chain. Supply chain management and supplier relationship management need a proper strategy and structured processes to reach their goals efficiently. Competition between networks, successful management and integration of the key processes thorough the members of a supply chain, will eventually designate the final success of an organization (Lambert, Cooper & Pagh, 1998). According to the existing literature, supply chain management has a few goals which organizations should strive towards – increased customer satisfaction and value, lower costs and competitive advantage (Mentzer, DeWitt, Keebler, Min, Nix, Smith & Zacharia, 2001).

In order to define the key suppliers and members one should utilize tools such as purchasing portfolios and ABC-analysis. However, supplier strategy should not be executed based on single tools, it should be formed from a combination of tools, knowledge, communication and data. Olsen and Ellram (1997) also noted, that purchasing portfolios should be used as a guiding tool among others, to eventually form the bigger picture. Hence, using a single tool may lead to a narrow-sighted decisions and strategy.

Buying services is a complex task and therefore it is essential to utilize the correct tools for it. For example, in complex service procurement processes the total cost of ownership (TCO) is one of the key elements when organizations are evaluating if the service should be purchased or not. Hence, one should try to develop suitable tools for measuring the TCO (Stremersch, Wuyts & Frambach, 2001). While the TCO for the

whole extended service purchase process may be rather hard task to do, one should try to measure the TCO for different phases in service purchasing process (Stremersch et al, 2001). Existing procurement literature offers a vast number of different tools for traditional material procurement. However, there are only few researches focusing on the tools for service procurement, although its impact is often significant for firm's long-term success.

#### 1.1 Research Problem, aim and Limitations

When Kraljic (1983) introduced his portfolio approach in 1983, the study received a lot of attention in a short time. It also was a catalyst for a lot of new researches to be done in the next decades in the field of purchasing portfolios. While the procurement based literature draws a line between goods and service purchasing (Van der Valk & Rozemeijer, 2009), the corresponding distinction is missing in the purchasing portfolio literature. Hence, this study tries to find out, if there should be guidelines and specific features, especially designed for service purchasing. In addition, this study may offer information and knowledge how, when and why portfolio models should be used in a contemporary business procurement process.

- 1) How a purchasing portfolio can be utilized in service procurement?
- 2) What are the similarities and differences between service and traditional material procurement?
- 3) What measurement methods and metrics are efficient for measuring purchased services?

The aim of this study is to search for suitable purchasing portfolio models, for procurement of services. Hence, the first research question offers guideline and a

framework for better SCM strategy and segmentation of suppliers. Connected to the research questions, the theory part of this study reveals the characteristics of services and their differences to services, different portfolio models and how to measure the purchased service.

## 1.2 Conceptual Framework

There are a couple of key elements and concepts which appear on this thesis. The figure 1 illustrates these aspects visually. Efficient supply management is something which can be seen as one of the key competitive advantages of a contemporary firm. Hence, efficient supply management is being constructed from various different elements. Many medium or large organizations tend to have vast supplier base. In order to have efficient supply management, the suppliers need to be managed accordingly. A proper supplier segmentation is often a must for efficiency. This is usually supported by several different tools, such as Kraljic Matrix, TCO-tools and ABC-analysis. Hence, the suppliers can be categorized for example by their spend, industry or criticality for the business.

Additionally, a sustainable organization with a long-term scope to its business, needs also a proper strategic purchasing and procurement processes. Hence, good supplier relationship management (SRM) has been widely recognized among scholars as a key competitive advantage. This is being emphasized in complex procurement environment, where the co-operation with the suppliers is essential for successful business. While this thesis is focusing on service purchasing and its strategical elements, it is natural to include the measurement elements of the service purchasing. Hence, it is rather hard to have a sufficient service purchasing strategy if the organization is not able to obtain and measure any data from the purchased services. Also, the improvement of the service procurement process is difficult without a proper

data and metrics. Figure 1 illustrates the conceptual framework of this thesis and the correlations between different concepts.

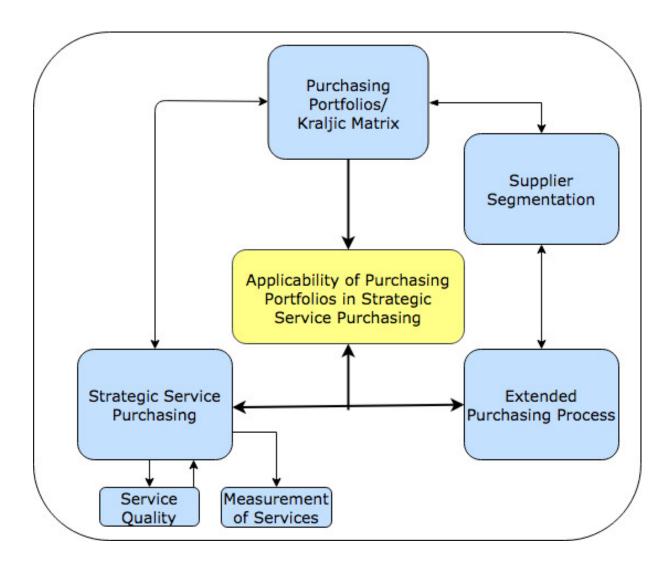


FIGURE 1 CONCEPTUAL FRAMEWORK

#### 1.3 Structure of the thesis

This thesis consists of five chapters which are presented on the figure 2 "Structure of the thesis". Hence, introduction offers a look on what matters this thesis will focus on.

The chapter two takes a look into the existing literature of service purchasing. This chapter gives an overview about the service purchasing in general. The subchapters under it, illustrate the service purchasing process and its different phases. This is followed with the introduction to value creation in service purchasing, which is complemented with the discussion about the quality aspects of the purchased service. Purchasing portfolios are introduced on chapter three. The main focus is on the most used one, Kraljic matrix. The applicability of purchasing portfolios into actual scenarios is presented on the subchapter.

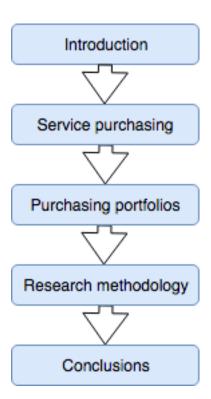


FIGURE 2 STRUCTURE OF THE THESIS

The fourth chapter contains the empirical material and discussion of this study. The research methodology is being described shortly. This is being followed by the analyzed interviews. The interviews are divided into several subchapters and themes, which are conforming the interview themes. Hence, the results of the interviews are

presented on the conclusion chapter. Additionally, some general recommendations are given. Finally, the reliability and validity is being discussed, which is followed by the future research suggestions.

## 2 Service Purchasing

This chapter focuses mainly on defining service purchasing and its special features compared to traditional procurement and purchasing. The different aspects illustrated on this paper are grounded on existing literature and researches.

## 2.1 Defining service purchasing

According to Van der Valk and Rozemeijer, (2009) a substantial amount of literature and research has focused on the purchasing of traditional and industrial goods. Stock and Zinszer (1987) stated that, there is an essential difference between purchasing goods and purchasing services. However, there is no complete consensus among scholars, if the services should, or should be not treated similarly as goods, when it comes to purchasing.

There are a few distinctive features which differ services from traditional goods. According to Parasuraman and Zeithaml (1985) the three features of services are: (1) intangibility, (2) heterogeneity and (3) inseparability. Hence, this list was further added with (4) simultaneity (Zeithaml & Bitner, 1996). The intangible nature of services, in other words, means that they cannot be counted, tested or measured in advance for most of the cases (Parasuraman et al.,1985). Heterogeneity refers to the performance of a service, it may vary from between different cases and circumstances. Inseparability, that is to say, service is usually produced and consumed at the same time. Some or each of these previous features affect the whole purchasing process in a way, which makes it more complex, or different aspects and features may have different weight on the whole process. In other words, some of the purchasing methods and practices cannot be applied directly from the field of traditional purchasing into the service purchasing (Van der Valk & Rozemeijer, 2009).

Business service processes are usually rather difficult to describe, plan and understand beforehand (Van der Valk, Wynstra, Axelsson, 2005). This will eventually make the whole process more complex. Hence, the purchasing needs to be planned more precisely and the actual price tag is harder to define. Van der Valk et al. (2005) express that, the number of researches being completed regarding service purchasing is low, compared to the huge value of services purchased and consumed in the global business world.

Van der Valk and Rozemeijer (2009) noted that their colleague, Patel (2005) had made an interesting finding in his research. Patel (2005) interviewed 30 board directors in large companies, approximately 70 percent of the interviewees were worried about the low competency of their procurement on professional services. Additionally, the board directors believed that the CPOs and their teams could have a serious positive impact on buying business services, and they should be encouraged to do that. Hence, Indirect sourcing is playing a major role in organization's total procurement. While indirect purchasing and sourcing is not connected directly to organization's core business, it should not be left without proper resources and attention. According to existing literature, the management of indirect sourcing and spend is often lacking support within an organization (Cox, Chicksand, Ireland & Davies, 2005). The strategic importance of purchasing and supply management has been noted, but the literature has focused on direct sourcing, and the indirect side has received little attention (Cox et al., 2005). Although, the importance and impact of indirect procurement and service purchasing has been noted and proved by various researchers. (Cox et., al 2005; Van der Valk & Rozemeijer, 2009).

While some may think that indirect sourcing of services, such as, cleaning, ICT-support and legal aid, may be an easy and simple task, it is not necessarily the case. Organizations tend to leave these things for little attention and support. Still, Stradford

and Tiura (2003) found out in their research that, when organization is trying to cut costs, the savings in service purchasing were ranged from 10 to 29 percent, while the same numbers were from 5 to 17 percent in the traditional material and industrial goods purchasing.

While some of the principles of traditional purchasing cannot be implemented into the service purchasing scene straightforward, they have still a lot common features to share. For example, service and good can be both tangible and intangible, and vice versa. Van der Valk and Rozemeijer (2009) enlightened a good example, services may have tangible results, while goods at the same time (such as IPhone) may have a huge intangible feature, in this case the brand image. In addition, they also noted that purchasing experts faced problems when buying business services. This seems a bit contradictory, while the goods and service purchasing is not so different after all. This thesis is aimed to search for factors which are suitable for increasing the effectiveness of purchasing, and furthermore the main focus will be on service purchasing.

## 2.2 Strategic Purchasing and its evolution through the years

In the mid-1980s, companies, researchers and the press were all giving an increasing amount of attention for the purchasing as a function. Organizations, noted that the purchasing unit had a significant impact on their end-products and value creation opportunities. Hence, people started to see purchasing as a strategical function and a resource for striving towards low costs, high quality and quick delivery. (Carr and Pearson, 2002).

According to Ellram and Carr (1994), there has been one fundamental managerial issue with purchasing. They state that corporate's purchasing unit has the power and ability to increase organization's performance and profitability, but this is only possible when

a strategic level of purchasing is acquired. However, Ellram and Carr (1994) noted that, most of the studies regarding strategic purchasing and its impact on firms' profitability are conceptual or their results are based on small number of cases. Chen, Paulraj and Lado (2004) also noted that there was a lack of good researches available related to strategic purchasing. Chen et al. (2004) argued in their study, that strategic purchasing can create a long-term competitive advantage by executing the following features in their strategy: (1) create a strong and close relationship with few key suppliers, (2) emphasize open interaction and communication with suppliers and partners, and (3) develop long-term co-operation for shared value and gain.

Ammer (1974) noted in the early 1970, that some of the firm's top directors thought that the purchasing had a passive role in the organization (Ellram and Carr, 1994). Purchasing was not seen as a strategic function at that time. The oil crisis, which occurred during 1973-74, increased the attention on purchasing, and eventually increased the strategic aspects and literature regarding it. Hence, Porter (2008) illustrated his five forces model in 1979, which included two aspects related to procurement. These aspects were bargaining power of suppliers and bargaining power of buyers. Porter's theory received huge popularity and this eventually increased the research and literature also on strategic purchasing (Ellram and Carr, 1994).

Ellram and Carr (1994) made a large literature review regarding strategic purchasing, and they found five key factors which are confronting the purchasing function. According to them these factors are: "(1) make or buy decision, (2) supplier technology, (3) the type of supplier relationship desired, (4) external market factors and (5) how purchasing can support the firm's competitive strategy". All these factors have significant impact on the firm's procurement strategy.

Ellram and Carr (1994) found out in their study that, while the purchasing is becoming more global and the changes in technology are rapid, the whole purchasing process requires more planning and the purchasing strategy should be implemented and integrated into the corporation's main strategy. They also noted that suppliers have a key role to support organization's strategy against competitors, which may include, for example differentiation and cost leadership. Therefore, the cooperation and integration with suppliers may be fruitful for the focal firm. However, a strong supplier relationship management requires a lot of resources. Chen et al. (2004) suggest that resources should be allocated mainly to the key-suppliers, in order to gain better and sustainable results.

Hence, what additional value can purchasing bring to corporate strategy? Chen et al. (2004) noted that a strategical supplier relationship management may lead to better customer responsiveness, which ultimately leads to better financial performance. According to Ellram and Carr (1994), purchasing has an important role for corporate's strategy while it is using the key suppliers' competences to support the competitive advantages and long-term plans of the focal firm. They also expand the positive features list with some additional advantages such as, integration of purchasing into research and development, and by forecasting the future production needs and cost of the materials.

What is then considered strategic purchasing? What factors and concepts exists behind it and how to add strategic elements into purchasing? According to Ellram and Carr (1994) purchasing can be considered a strategic part of corporate's strategy when, it is included in firm's strategic planning and is implemented at the same level as the other functions in the firm. This naturally requires the approval of the top management. Hence, also the purchasing managers and their teams need to have the right mindset for the strategical approach and change in an organization (Ellram and Carr, 1994). When whole organization drives towards a common goal, results are often very good.

In addition, there should be a clear line drawn between purchasing strategy and purchasing as a strategic function. Purchasing strategy refers to actions which are required to complete different tasks and to support purchasing strategy's objectives. (Ellram and Carr, 1994) For example, when purchasing team is driving towards standard metal components thorough the assembly line. If purchasing can be seen as a strategic function within an organization, it should have a key role in organization's strategic process (Ellram and Carr, 1994). According to Chen et al. (2004) organizational capabilities play a significant role in firm's sustainable strategic purchasing and competitive advantage. Hence, these capabilities should be rather dynamic and non-historically based in order to be efficient in a long-term scope (Chen et al., 2004).

#### 2.3 The Process of Service Purchasing

Firms are procuring more and more services from external suppliers on the last few years. Additionally, the procurement department in large organizations are showing little impact on the purchased services. (Bals, Hartmann & Ritter, 2009). If the procurement department is not involved in the service procurement, the process is often scattered and inconsistent. Therefore, organizations should strive towards a more structured and strategic service purchase processes. There are couple of different purchasing process structures, which have similar basic model. However, according to Van Der Walk and Rozemeijer (2009) the most convenient model was constructed by Van Weele (2005). It is a basic six step model, which illustrates the basic purchasing process of services. Hence, there has been added two additional steps between "Specify" and "Select". This figure will be analyzed further in the following chapters.

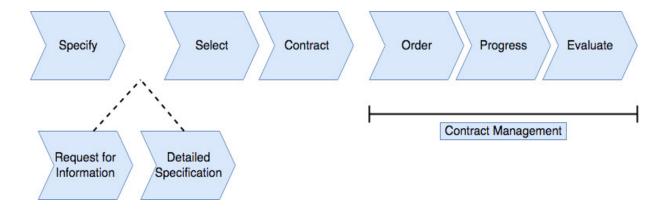


FIGURE 3 EXTENDED PURCHASING PROCESS (BASED ON VAN WEELE, 2005; VAN DER VALK & ROZEMEIJER, 2009).

The Extended purchasing process starts from the specification designation phase. In the traditional process this is being followed by select phase. However, the extended process includes two additional phases called "request for information" and "detailed specification". These two factors will be analyzed further and thorough in the following chapters. After a suitable supplier is being selected, a proper contract should be executed. This is followed by the contract management period which includes three steps: "order", "progress" and "evaluate". Each step in the process has a significant effect on the whole process, and on its successfulness.

While the actual purchase has been executed, many organizations may lower their effort and the end value may decrease. Hence, the contract management part is an essential part of the whole purchasing process. During contract management, orders can be placed, and services consumed. The purchasing process is usually being improved and the progress will come through evaluation and monitoring of the process and suppliers. (Van Der Valk & Rozemeijer, 2009). There are some factors which should be taken into account regarding service purchasing process, when comparing it to traditional goods purchasing process. Van Der Valk & Rozemeijer (2009) underline one of the key issues when purchasing goods, services are rather hard to evaluate

beforehand, which naturally makes the supplier selection process and comparison of quotations significantly harder. They suggest that additional supplier selection criteria, such as, suppliers' staff competencies and records should be taken into account during the process.

Van Der Valk & Rozemeijer, (2009) underline the difficultness of value assessment of purchased service. This can be although mitigated with proper service level agreement (SLA) and constant monitoring and evaluation of the service process. Van Der Valk and Rozemeijer (2009) mentioned additional factors which may set some difficulties on the service purchasing process, such as, demand and capacity management, the physical environment and the personnel in it. They also state that a proper interaction and cooperation between purchaser and the service provider during the first stages of the purchasing process, are crucial for the overall success. Van Weele (2005) was on the same page with his studies, he stated that a cultural fit with the supplier and buyer is essential, not to mention a clear dispute procedure.

A survey made in 2004 by Van Der Valk and Rozemeijer (2009) investigated how service purchasing differs from purchasing of goods. General findings were that supply chain experts felt that the service purchasing was more demanding. They also noted that a preparation of SLA is a time-consuming process, and overall it is rather hard to measure the performance of one's service. The similarities of the processes were related to selection of suppliers and to the contract stage (Van Der Valk & Rozemeijer, 2009). Also, supplier quotation comparison and selection criteria was seen rather similar. However, if the quotation is not only being ranked by price, but a quality aspect is added, it might be rather hard to set the metrics and actually make differences between tenderers beforehand.

What are the key factors for a structured and successful service purchasing? Van Der Valk and Rozemeijer (2009) identified three main themes which may propel problems in the purchasing process of services, which are: (1) "specifying the service", (2) "Defining the specific content of a service level agreement" and (3) "Evaluating performance. Hence, a famous quote well planned is half done, relates strongly to the specifying part of the service purchasing process. As a first step of the process, it also affects strongly all the following phases to come. Jackson, Neidell and Lunsford (1995) investigated how organizational buyers perceived the differences between goods and services. The research focused mostly on industrial service purchasing. The organizational buyers' viewpoint underlined, that it is more difficult to specify service purchases than goods. Van Der Valk and Rozemeijer (2009) noted that, while generating and developing service purchasing specifications for purchasing is a time consuming, but a crucial step for success — many organizations may still execute this step poorly and unwillingly. Another notion was, that organizations tend to undervalue the consequences of a faintly performed specification part.

A poorly started service purchasing process will also make the defining of a service level agreement (SLA) much more difficult, in which the whole contract usually heavily relies and grounds on. Furthermore, measuring and assessment the quality becomes harder for both the buyer and the supplier sides. (Van Der Valk & Rozemeijer, 2009). Specification phase is probably the most time-consuming part and it requires a lot of expertise and proficient employees for the process. Van Der Valk and Rozemeijer (2009) state, grounding on their research, that the success of the service purchasing is heavily dependent on the first stage of the process. Hence, they continue that it is important to identify the correct stakeholders and how they are affecting the whole system and what are the objectives for the process.

The figure "Extended purchasing process" includes the two additional steps "Request for information" and "Detailed Specification", mainly due to the very high importance of

specify phase, which should be executed carefully before moving to the next phase "select". Van der Valk and Rozemeijer (2009), underline the need for interaction between the purchasing organization and several potential suppliers, starting on the early phase of the process. They continue, that this interaction enables opportunities to compare the suppliers early, and even adopt some ideas and opportunities from them, for a more successful outcome. According to Van Der Valk and Rozemeijer (2009), the initial specification phase is sometimes referred to "upfront SLA-thinking". Hence, according to them, a supplier may have value-adding ideas and initiatives which, may lead for example, into better profitability, increased number of customers or to other KPI's.

Service level agreement can and should be a phase where both supplier and buyer collaborate closely for the best outcomes. Hence, according to Van Der Valk and Rozemeijer (2009), a well-planned specification part and SLA implementation forces the buyer to actually think what they need beforehand and what are the expectations towards supplier, and furthermore from where the actual customer value is being drawn. This process also determines the responsibilities for both of the parties. Furthermore, beforehand planned SLA mindset may drive parties towards a performance based contracts, where the service provider is being rewarded for a proper in- and output for the collaboration (Van Der Valk & Rozemeijer, 2009). However, performance based contracting is not necessarily always a desired goal, while it has some drawbacks also. Performance based contracting has received a lot of attention recently as a process which will increase quality, effectiveness and efficiency of a human based service delivery (Martin, 2005). However, Koning and Heinrich (2013) noted that a performance-based contracts may also lead to some cream-skimming and regressive behavior. Hence, Martin (2005) noted that performance-based contracting is actually delivering the basic task it is designed to do, striving one's behavior towards a more performance oriented one. In his empirical study, some of the cases had a significant rise in the performance-based results. Martin (2005) states that in a performance-based contracting it is often useful to not have the

weight solely on performance. Therefore, some weight should also be given to other factors such as quality.

Both groups Jackson, Neidell & Lunsford (1995) and Van Der Valk & Rozemeijer (2009), noted that upfront SLA thinking and deep collaboration concluded with shared organizational processes can be described also as "service development". They both underlined the difficulties in the specifying phase of service purchasing can be tackled by closer collaboration with customer and supplier. Furthermore, the buying organization can also compare the collaboration, cultural fit, attitude etc. as qualifying factors for the selection phase. Hence, Van Der Valk and Rozemeijer (2009) continue, that the specification part is not necessarily a one-time effort, nothing is more certain than a change in this current business environment. Therefore, organizations should strive towards a sustainable and long-term contracts and processes, which adjust to the changes if needed. Furthermore, purchasing departments should try to integrate internally, and collaborate with different units within the organization for the best possible outcome (Van Der Valk & Rozemeijer, 2009).

This structured service purchasing process will be beneficial for organizations, especially to those were procurement processes are still on unsophisticated level. Van der Valk & Rozemeijer (2009) underline the benefits of this process, for complex business services, which often require high expertise to purchase. Also, purchasing professionals' expertise should be exploited in big matrix organizations to acquire the best end results. Hence, one should try to mix purchasing expertise with some expertise which is closely related to the actual business service being purchased, such as financial or software services.

#### 2.4 Value Creation in Service Purchasing

Value creation in purchasing has changed during the past decades. Hallikas, Immonen, Pynnönen and Mikkonen (2012) made a notion, that while products and services are becoming more and more related to each other, the value creation and delivery is beginning to be more difficult. Hence, after all the creating of customer value is the ultimate goal for suppliers, which is often achieved by finding different strategic options in networks and supply chains (Hallikas, et al., 2012). According to Hallikas et al., (2012) and Pynnönen, Ritala and Hallikas (2011), it is rather hard to be successful on this current systemic value creation environment, if one's organization is leaning on traditional, or old-school operating and management strategies.

According to Hallikas et al, (2012) the value of a purchased service is generating from the system, and is not necessarily generated from individual factors of the case. Furthermore, they stated that most of the purchasing units are often using parallel and several purchasing strategies for the service procurement process. The service provider, in this current fast changing and highly competitive business environment, is required to handle various business aspects, such as cost efficiency, profitability and quality, in order to beat its competitors (Parasuraman, Zeithaml & Berry, 1988, Hallikas et al, 2012). Hence, the service provider should try to develop a service concept, which should include aspects, for example, network planning, construction and maintenance, which will lead into better value delivery for customers, according to Hallikas et al., (2012).

The value creation in complex service purchasing is highly related to the interaction between customer (buyer) and supplier. Hallikas et al., (2012) found two key factors which should be taken into account when delivering a complex service; (1) Individual operations should be analyzed by utilizing a customer-requirement grounded point of view, accompanied with a proper review of current interdependence between different

elements, and secondly (2) the value-creation aspects and mechanisms should be analyzed thoroughly, which could reveal different needs of customers'.

Regardless of the industry on which the organization is operating on, firms have been outsourcing their non-core business elements to subcontractors and suppliers, which eventually leads to better strategical focus, and furthermore, improving profitability and efficiency among other positive effects (Quelin and Duhamel, 2003). While corporations cost structure is often strongly related to the organization's procurement and purchasing, also the value creation and cost cutting strategies are related to the procurement of services and goods (Hallikas et al., 2012). Hence, According to Hallikas et al. (2012) one of the key missions of service purchasing is to gain value and assets from activities which are being set to be outsourced.

Today's ever evolving business environment has been driving organizations' supply management and chains from traditional product and lean based strategies towards a "leagile" (refers to lean and agile) and customer driven strategy (Nordin 2008; Naylor, Naima & Berr, 1999). Hence, lean supply chain drives towards high quality and diminished and low costs, on the same time the lead times and availability should be on a high level, in other words the supply chain is lean and agile, leagile (Nordin, 2008). A good example about effects of a lean and agile service procurement is, for example, IBM which is outsourcing and focusing its mediocre value activities into countries with lower costs (Nordin, 2008).

Procurement of services is basically based on three strategies which are: (1) standardized and large volume services should be outsourced, (2) orders, contracts, and critical and unstandardized services should be done in-house, or by subsidiaries or with partners, (3) business areas with high velocity of change should not be entirely outsourced (Nordin, 2008; Hallikas et al., 2012). Hence, service sourcing is a complex

process and the value is driven from multiple sources. The following figure will illustrate the relation between service procurement decisions with competitive advantages, hence this relation is affected naturally by context related elements.

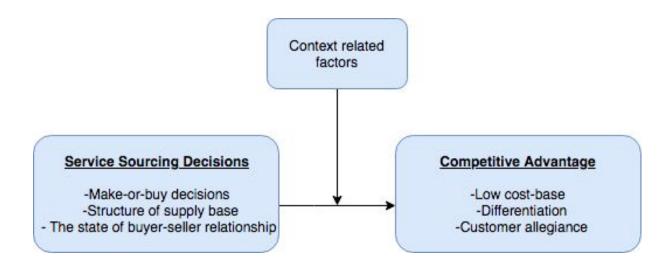


FIGURE 4 RELATIONS BETWEEN SERVICE SOURCING DECISIONS AND COMPETITIVE ADVANTAGES (BASED ON NORDIN, 2008).

Basically, service sourcing decision have an effect on one's drive towards better profitability and competitive advantages. Hence, make or buy decisions often possess high weight and value if they are executed properly. An organization may reduce its labor costs significantly by exploiting scale advantages in low-cost countries (Cachon & Harker, 2002; Nordin, 2008). On the other hand, one should always consider other related costs, such as transportation and implementation related issues. Regarding the nature of organizations supplier base, if one can establish a good arms-length relationship with supplier, the costs are often further reduced (Nordin, 2008). However, outsourcing into low-cost countries is not always the best option. Especially with services, which are often highly affected by the distance between partners.

According to Nordin (2008), organizations acquire generally better outsourcing benefits by utilizing location, low-cost and scale advantages for products and services, which are rather standardized and mature. Hence, when one is striving towards low cost-base, organizations should try to maintain their internal capabilities or optionally try to partner with competent partners (Nordin, 2008). Nordin continues, while the velocity of change is high, one should try to avoid full outsourcing, hence it may lead to slow reaction speed and clumsy strategy.

Customers bring the ultimate value for organizations. The elements in the previous figure "state of buyer-seller relationship" and "customer allegiance", are strongly connected together and will often lead into profitable business and competitive advantages (Nordin, 2008). According to Nordin (2008) and other scholars, if an organization can acquire market and customer orientated approach, and furthermore create bonds with customers/suppliers, the profitability will eventually increase. For Example, Liljander and Strandvik (1995) noted, that customers may accept poor service quality and other negative aspects from time to time, if a proper bond had been established with the customer.

## 2.5 Quality in Service Purchasing

It is rather hard to define and monitor the value of purchased service, if there are not proper metrics established for measuring, hence the actual value generated from these services may remain unclear. While the importance of service sector is so large in the current highly sophisticated, it is no surprise that organizations- the providers and the purchasers/customers are highly interested in measuring the quality of services. Hence, delivering a high service quality and value can be seen as a key strategy in order to obtain a better position in a current marketplace (Parasuraman & Zeithaml 1988; Cronin & Taylor, 1992). Still, while service quality is a key factor to success and to a profitable and sustainable business, its measurement is highly complex, not to

mention the rather unexplored relations between customer satisfaction, purchasing behavior and service quality (Cronin & Taylor, 1992).

According to Cronin and Taylor (1992) service quality should be measured as an attitude. Hence, their SERVPERF seemed to be more efficient than Parasuraman et al.'s (1988) SERVQUAL. Therefore, this supports the performance based measurement of service quality. According to Cronin and Taylor (1992), customers/purchasers may sometimes act in a way which do not lead in to a decision of buying the service with the highest quality. Hence, availability, price and adjustability may affect the decision, while they are not necessarily linked to the service quality. They continue, that the factors which define service quality are not general, but they may differ from one industry to another. Highly sophisticated services, such as health care and financial possess different quality factors than for example, cleaning or fast food services (Cronin & Taylor, 1992).

Stanley and Wisner (2001) have a different angle of incidence to service quality and value in supply chain and management. They see that internal customers and suppliers have a significant role in the improvement of one's service quality, which eventually leads to added value to corporation's services and products. Quality of one's service has been widely approved to be a significant element in organization's success (Davis, 1992). Furthermore, Davis (1992) noted in his research that a structured service quality strategy leads eventually to cost reductions and better performance in a long-term scope. Hence, the importance of service quality should be highlighted to organizations employees (Stanley & Wisner, 2001).

Various researchers, such as Garvin (1987) that external supplier quality management is a crucial factor of comprehensive quality management. Hence, they continue that, organizations should try to diminish the total number of suppliers in their portfolio, in

order to make the entirety more manageable. This will decrease the variation of service quality among suppliers (Stanley & Wisner, 2001). According to Garvin (1987), purchasing department should encourage contracts which are based on both, cost and quality.

According to Stanley and Wisner (2001), a large number of researchers have highlighted the importance of cooperative relationships with external suppliers. Hence, Richardson (1993) noted that, cooperative and/or single sourcing has a significant impact on quality, especially when the external supplier possesses a high dependence. Hence, it has been proved that regular connection and information sharing between the supplier will decrease delivery, quality and design related problems (Stanley & Wisner, 2001). Hence, according to Stanley and Wisner (2001), organizations have been able to lower their inventory values and improved production and planning schedules, by utilizing a proper supplier integration.

Strategic and long-term orientated organizations tend to adopt a total quality management (TQM) ideology, including supplier number reduction, improvement of partnerships and performance measurement of suppliers (Stanley & Wisner, 2001). Stanley and Wisner (2001) conducted various strategies which would improve supplier's performance and the quality they will provide: these factors are, "(1) partnerships, (2) supplier certification, (3) just-in-time (JIT) purchasing, (4) regular visits to suppliers, and (5) supplier development programs". Hence, Stanley and Wisner continue, that while these factors are important for overall success, one should not forget the measurement of service quality, which is required to monitor and sustain these improvements further.

According to Stanley and Wisner (2001), firms' capability of delivering service quality to customers is connected to purchasing department's own service quality competency. Hence, firms should try to focus on the following things to provide better overall quality:

(1) improvement of relationships between procurement, organization's external

suppliers and procurement's customers and internal suppliers, (2) managers should encourage increase of communication and execute proper actions for this, for example, try to solve problems and raise awareness between parties, (3) and employees should be boosted, in order to search and identify their most important customers and suppliers, and finally set the correct quality levels and goals (Stanley & Wisner, 2001). Furthermore, Stanley and Wisner (2001) continue, that organizations should have feedback mechanisms, treat programs and metrics for performance measurement, hence these should be connected with service flexibility, service and product quality and to on-time delivery (OTD).

# 3 Purchasing portfolios

This chapter introduces the history of different portfolios. Hence, the most used and researched purchasing portfolios will be illustrated. Discussion about their suitability for different purposes should arise.

Harry Markowitz introduced his portfolio selection model in 1952. However, it was not designed for purchasing, but for investing capital to gain maximum return. The main hypothesis was that, an investor should reach for high expected return and low variance. (Markowitz, 1952) Hence, portfolios are containing factors which are picked together for more strategical planning and better performance, nevertheless what kind of portfolio model is being used. In addition, portfolios are suitable for many other occasions such as, customer management and purchasing.

Purchasing portfolios have been widely discussed and researched in the business and academic world. Portfolios are easy to adapt and understand, and furthermore these give deeper understanding and framework for strategical planning etc. (Drake, Lee & Hussain, 2013) Therefore, some practical guidelines for purchasing can be drawn with rather little effort by utilizing the purchasing portfolios. Still, a majority of the literature regarding purchasing portfolios is leaning more on the purchasing of goods, not services, although services are playing a key role in major part of organizations procurement.

Peter Kraljic 1983 published his famous article "Purchasing Must Become Supply Management" in 1983. Kraljic (1983) underlined the increasing need for more strategical purchasing. The business risks of that time had been increasing, covering for example, political, raw-material and technological risks. Kraljic purchasing portfolio model has been inspiring many other researchers among the years, which have

delivered many different models with some modifications to the Kraljic's one (Caniels & Gelderman, 2005).

While different purchasing portfolio models have rose significant amount of discussion among the scholars, there is still some contradiction what are the actual merits of the purchasing portfolios and which models are the most suitable ones. (Gelderman & Van Weele, 2005). Gelderman and Van Weele (2005) made an interesting notion, they found out that when an organization is using purchasing portfolio models, its purchasing is also on a sophisticated level. They found in their research that the professionalism and the current state of purchasing are both positively connected into the use of some purchasing portfolio models.

On the other hand, purchasing portfolios have been widely accepted and used, still they have also encountered some negative feedback and criticism (Gelderman & Van Weele, 2005). Dubois and Pedersen (2002) stated that, the purchasing portfolio fails to represent vital factors such as network contexts, by simplifying the buyer-supplier interconnection too much. They also point out that it is rather hard to construct a strategy by utilizing a model which uses only two different dimensions. Hence, these portfolio models are more of guidelines and should not be used on their own, to form a complete procurement strategy. In addition, Dubois and Pedersen (2002) see that, the Kraljic's matrix is driving towards power exploitation by buyer, or risk avoidance if the supplier is utilizing their power position. Furthermore, the lack of proactivity in purchasing portfolios has been criticized, in a way that they do not offer any guidelines or notes, how to change the power current positions (Gelderman & Van Weele, 2005). In addition, the difference between high and low risks, is often rather hard to determine (Gelderman & Van Weele, 2005).

Although the purchasing portfolios have some problems and theoretical issues, evidences can be found that the models are actually useful in real life scenarios (Gelderman & Van Weele, 2005). Wagner and Johnson (2004) found out in their case study that managers predicted better profits and outcomes from sectors using strategical supplier portfolios. Gelderman and Van Weele (2003) found out in their previous study that, professionals with high experience could outcome and reply to the problems of Kraljic model. The key finding of their study was the feature that, professional portfolio utilizers could actually reflect the results of portfolio analysis and furthermore have profound discussions with cross-functional members, which will eventually lead to better results. However, Gelderman and Van Weele (2005) noted later in their study that, these conclusions and results are grounded on a small amount of case studies, which obviously deteriorates the final results. This leads to another question, can the usage of purchasing portfolios be seen as a sophisticated and useful tool and method, or is it a rather poor function which should be avoided in some cases (Gelderman & Van Weele, 2005)

## 3.1 Kraljic's Model

Kraljic stated in 1983 in his famous article that "purchasing must become supply management". Kraljic (1983) was concerned how companies can face and guard themselves against different supply interruptions, and furthermore how can organizations adapt to the rapidly evolving business economy with its all new technologies, opportunities and risks. According to Kraljic (1983), organization's need for a specific supply strategy is dependable on two key features:

(1) "the strategic importance of purchasing in terms of the value added by product line, the percentage of raw materials in total costs and their impact on profitability and so on"

(2) "complexity of the supply market gauged by supply scarcity, pace of technology and/or materials substitution, entry barriers logistics cost or complexity and monopoly or oligopoly conditions".

These two features can be seen as backbones for the formation of the supply and purchasing strategy (Kraljic, 1983). While these features were once invented mainly for the procurement of goods, they can be still adapted into the service procurement scene. The main points in the supply strategy guidelines by Kraljic (1983) are rather straightforward. Kraljic found out that organization's supply executives should try to maximize the profit from their purchasing power, and in addition, try to decrease the procurement risk to an acceptable level. The strategical mind-set may reveal new opportunities, or on the other hand, some vulnerabilities regarding organizations supply strategy or procurement may rise up (Kraljic, 1983).

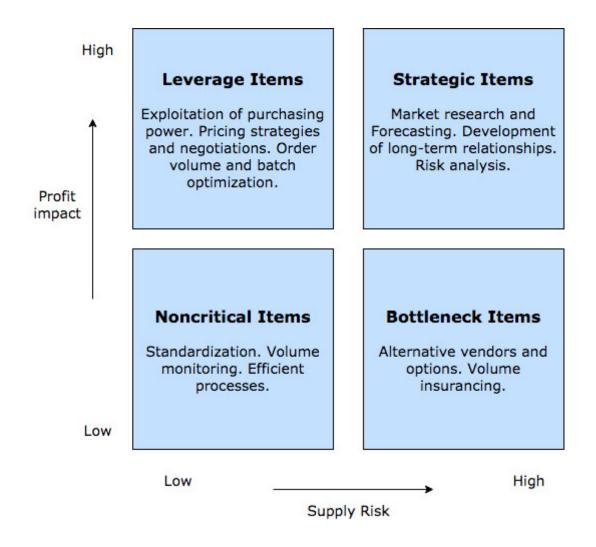


FIGURE 5 KRALJIC MATRIX (BASED ON KRALJIC, 1983; GELDERMAN & VAN WEELE, 2005)

Kraljic's purchasing portfolio model is matrix which divides the products and services based on two different dimensions, supply risk and profit impact, on a scale from low to high (Gelderman and Van Weele, 2005). As in the Figure 1 can be seen, Kraljic's model represents a 2x2 matrix, which has 4 different categories (1) noncritical items, (2) leverage items, (3) bottleneck items and (4) strategic items. The items can be also referred as services, this model is not restricted to only goods, but it is also very useful to make service purchasing portfolios.

Hence, the noncritical items or services should receive less attention than the other (2005) expresses noncritical items as routine items or services. According to them these routine commodities, which are often bought frequently, should be standardized and the transaction costs should be minimized, for example, with e-procurement. Leverage items or services are perhaps the most valuable square for an organization. If an organization wields great purchasing power, it can be usually exploited in this square. Gelderman and Van Weele (2005) state that, that a firm can utilize its purchasing leverage through product substitution, tendering or target pricing processes.

Bottleneck commodities can be a bit tricky for buyers. Their supply risk is high, yet again their profit impact on organization is rather low. If these kinds of commodities can be avoided, they should. Hence, if this commodity is still a part of one's portfolio, Gelderman and Van Weele (2005) suggest a few options to mitigate the risk: bottlenecks volume should be insured and the supplier needs to be controlled, also a safety stock and plans for alternative commodities should be executed. Strategic items and services have high impact on firm's profit, but they also possess high supply risk. The risk should be tackled and mitigated with supplier cooperation and communication and long-term relationships. The risk should be analyzed thoroughly, if there is features which could be mitigated.

# 3.2 Applicability of portfolio models in purchasing

Firms tend to have a large number of suppliers, services and products to manage. To manage these large entireties, one should consider some kind of differentiation methods and tools. ABC-analysis or the so-called Pareto analysis were the only true options for differentiation for a long time. (Gelderman & Van Weele, 2005) However, ABC analysis is focusing solely on the commodity's value, while Kraljic's model is also considering supply risk and other strategical elements.

Kraljic (1983) proved his model's usefulness by illustrating four large cases. Other scholars have also proved the effectiveness of Kraljic's model in several ways such as, Wagner and Johnson (2004) illustrated its effectiveness for managing and configuring different supplier relationships, interdependence analysis and tradeoffs in relationships. Furthermore, Olsen and Ellram (1997) stated in their research, that portfolio models and approaches are very suitable for improving the usage and allocation of limited resources. Portfolio model may act as a guiding framework, which helps employees to understand one's supply strategy in a more sophisticated way (Gelderman & Van Weele, 2005). The adoption of a purchasing portfolio model may change the reactive way of one's procurement into a more proactive and strategical approach.

According to Dubois and Pedersen (2002), the purchasing related literature before Kraljic's model, has been paying too much attention on solely internal procurement aspects. Kraljic's approach unites the external aspect provided by the supplier with the internal value and needs of one's organization (Kraljic, 1983). Hence, there has been a second wave of researchers, which have been focusing more on buyer-supplier relationships, apart from the initial Kraljic's model, for example Bensaou in 1999 (Dubois & Pedersen, 2002). According to Dubois and Pedersen (2002), the amount of somewhat parallel researches about relationships between buyer-supplier have been increasing drastically after Kraljic's model had been published. The industrial markets are often being characterized by their complex and long-term relationships between buyer and supplier (Dubois & Pedersen, 2002).

Hence, Dubois and Pedersen (2002) bring forth the one issue in purchasing portfolio models. They see that, while the purchasing portfolio model is focusing on power-dependence factors, with an assumption that an unbalanced power-dependency will be exploited, the outcomes will not take relationships, interdependencies and adjustments into account. While these factors often are the foundation of innovation,

productivity and profitability (Dubois & Pedersen, 2002). However, these limitations and crimps are often related into industrial markets, where long-term relationships are highly valuable. Dubois and Pedersen also criticize the two-dimensional aspect of purchasing portfolio models. They say that, this kind of approach can never truly illustrate the complex nature of situations and interactions in industrial area. They demonstrate this issue with an example, a bottleneck situation may refer more to a behavior of an organization, than a structural problem. For example, if a firm is purchasing goods with a short-term contract, and another firm is utilizing long-term contracts and relationship, usually the long-term part is having a priority. A long-term relationship often includes planning and co-operation, which will decrease the "bottleneck" risk even more.

Dubois and Pedersen (2002) are a bit concerned about the polarized focus and approach of purchasing portfolios. They stated that portfolios are being too focused on firms and products. Hence, one should try to have a wider scope including relationships and networks. This may bring forth fruitful aspects of different interactions within organization (Dupois & Pedersen, 2002). Still, we need to keep in mind that purchasing portfolio's simplified aspect is a two-bladed sword, it offers a good framework to begin with, but one should remember that it still needs a lot of tools and ideas for reinforced and structured strategic approach.

While portfolio models have received a lot of attention amongst researchers and public, the main point have been mainly on strategic planning related to competitors, and customers. Hence, on the other hand the purchasing and supplier management related portfolios have received much lesser amount of attention. (Olsen & Ellram, 1997). While Kraljic's (1983) invented the first and the best-known portfolio to date, there are still a good amount of other variations from the original model. Hence, Lintukangas (2010) has gathered a summary table of different portfolio models, which illustrates the authors and classifying dimensions of the models.

Table 1 A summary of different supplier classification models (Based on Lintukangas, 2010).

Author	Model dimensions			
Kraljic, 1983	Profit Impact Supply Risk			
Olsen & Ellram, 1997	Strategic importance of supply management Difficulty in managing the purchasing situation Attractiveness of the supplier			
Bensaou, 1999	Level of buyer specific investments Level of supplier specific investments			
Masella & Rangone, 2000	Time horizon of the relationship Nature of the buyer-supplier integration			
Hallikas et al., 2005	Network related risk Collaboratice risk management			
Caniëls & Gelderman, 2005, 2007	Relative power Total interdepence			
Gelderman & Semeijn, 2006	Value of purchase Number of suppliers			
Zhu, Dou & Sarkis, 2010	Supplier's relative power Supplier's overall performance			

According to Hallikas et al., (2005) supplier classification models can be divided into two different categories. They highlighted a few key factors which determine the first category, which are: transaction costs, organizational structures and main competencies. Hence, the second category is the portfolio based classification, which often include an analysis of services or goods, and the relationships with suppliers (Hallikas et al., 2005). Most of the table's models are based on this category.

# 4 Research methodology

Interviews chapter contains the empirical part of this thesis. Furthermore, on the chapter 4.1, the research methodology on this research is being introduced. This is being followed by the description of the data on chapter 4.2.

The research approach of this thesis is qualitative method. Generally qualitative research is being grounded on real life situations (Saaranen-Kauppinen & Puusniekka, 2009). Additionally, qualitative research method has been noted to be an efficient method, when one is trying to understand a real-life processes and factors (Bluhm, Harman, Lee & Mitchell, 2011). Hence, according to Saunders, Lewis and Thornhill (2009), the basis of data which has been collected by qualitative methods, such as the semi-structured interviews, is often grounded on words and meanings, whereas the quantitative methods are based on numerical database.

Most of the qualitative researches are based on the data which has been collected by interviews. There are three different categories for interviews: (1) unstructured interview, (2) semi-structured interview and (3) structured interview (Saunders et al, 2009; Saaranen-Kauppinen & Puusniekka, 2009). Semi-structured interview usually includes a preset of questions and different themes which are linked to the aim of the research (Saunders et al., 2009). The basic structure of the interview is often quite similar between different interview occasions, however the interviewer may include some additional questions or exclude some of them, depending on the interviewee and the situation itself (Saunders et al., 2009; Saaranen-Kauppinen & Puusniekka, 2009)

Hence, the data for this thesis was collected by semi-structured interviews. This decision was mainly grounded on the semi-structured interview's ability to generate a more comprehensive result, than a survey would. Additionally, semi-structured

interview allows the interviewee to add their own opinions, and the discussion may flow rather freely. (Saunders et al., 2009)

# 4.1 Description of the data

The empirical data for this thesis was collected from six semi-structured interviews, which were held in Finnish. The pool of potential interviewees was searched by utilizing LinkedIn. The main search criteria used was interviewees position, which had to be at least sourcing manager or similar. Additionally, the search pool was limited to companies which were located in Finland. After collecting the potential pool of interviewees, they were contacted via cold emails. In total 12 emails were sent, with eight responses received. Each of the responses were positive, however due to schedule limitations 6 interviewees were chosen.

All the interviews were completed in October during a three-week time period. The interviews were being held via phone. A few of the interviews were being recorded, hence comprehensive notes were written down from all the interviews for further and thorough analyzing. The duration of the interviews varied from 35 minutes to 60 minutes. The data collection for this thesis was based on several questions on four different themes. The themes were (1) organization and suppliers, (2) sourcing process, (3) strategic sourcing and (4) sourcing/procurement of services and material. The questions on the first theme were related to the organization's size and to their supplier base. The second theme included the questions related to the phases of the sourcing process and to tendering. The third theme handled topics related to strategic procurement, including questions about supplier relationship management (SRM), also the purchasing portfolio model related questions were asked on this phase. The final theme had rather large scope, it contained questions related to risk mitigation in purchasing. Additionally, the significance and measuring of organization's procurement

was conversed with the interviewees. The full question frame can be found on the appendices.

Overall, six interviewees were interviewed, all from different companies. Each of the interviewees' title was at least sourcing manager or higher. Most of them were dealing with indirect and service sourcing in some ways during their daily tasks. The companies on this thesis were picked from different industry, in order to gain bigger picture and to avoid industry related findings. All of the companies were rather large. Larger companies were preferred on the selection process, while they tend to have also large procurement departments, which are well organized and sophisticated. The companies and the interviewees are briefly introduced on the next chapter.

# 4.2 Introduction of companies and interviewees

As stated before, all of the companies on this study are rather large and each is from different industry, to get a better lay out for comparison. Additionally, each company had a rather large count of sourcing and purchasing personnel. Hence, before digging deeper into the analyze, the companies and the interviewees will be shortly introduced.

**Company A** is a large company gaining over 1000 million euros of revenue yearly. It is operating mainly on retail trade related industry. Its revenue is mostly coming from local sales. While company A possess a large customer and supplier base its functions has to be well organized and efficient. Company A's vision is striving towards a sustainable and customer oriented business model.

Company A has a large number of suppliers, approximately 2000, of which are almost all active. However, the management of this vast supplier base is possible due to the

similarity of them. Additionally, the interviewee from company A was coordinating the indirect procurement in their organization. Hence, the indirect purchasing has often a rather large impact on firm's overall success. Company A has approximately 20 personnel working in sourcing, of which three are working on indirect procurement. Company A is environmentally aware and it has for example a highly sophisticated recycling system for its logistic materials and retail related material left overs (Company A's website).

**Company B** has approximately a turnover of 400 million euros. Its core-business is related to service providing. Company B's revenue is generating mostly from local business. Company B has a rather small supplier base, totaling a couple of hundred. Hence, around 90% of company B's procurement is channeling through 15 suppliers. This is mainly due to the industry where company B is operating, while there are rather few capable suppliers available on this industry overall. There are around ten people working at company B's sourcing department.

While company B's services are rather critical to their customers, they obviously strive towards a sustainable and robust business model, which also requires a strong sourcing elements. Hence, company B's values are strongly related to their customers' needs and well-being. They also aim towards a long-term and sustainable way of doing business (Company B's website).

Company C's turnover on group level exceeds 1000 million euros. The major part of company C's revenue is coming from retail of commodities to customers. Company C has approximately 50 personnel working on sourcing or purchasing. Fifteen of them are working on the group sourcing function, which includes indirect procurement, process development and quality in sourcing. Company C has a large supplier pool, totaling in 10000 suppliers. However, not all of them are necessarily active suppliers.

While company C is providing goods to customer which are related to the well-being of their customer, quality is naturally one of their main drivers in everyday business. Company C is a global firm with a strong brand, which is one of the key competitive factors on their industry. About 50 percent of its revenue is generating from Finland and the other half from other countries.

**Company D** is a large organization with a turnover over 1000 million euros yearly. It is a global company, with strong local roots. Its business model is service oriented and customer based. It has a supplier base of around 5000 in total. However, not all of them are active. They have few hundred yearly active suppliers. Company D has approximately 20 personnel on their sourcing department. Their business mission is striving towards a sustainable and environmentally friendly way of doing business. This is strongly related to their customers and to the industry company D is operating on.

Company E is a large company generating a turnover of over 1000 million euros per year. They are offering both services and commodities to their customers. Hence there are a rather few if any companies which are selling solely goods. The retail of goods is almost always related to some kind of service. Company E has a large supply base of 4000 suppliers. However, a couple hundred of them are active ones. The size of their sourcing department is between 30 and 40, however if purchasers are also included, the total size of sourcing and purchasing department is over 50 personnel. Company E is a global company, but its core-business is focused locally on Finland. The industry on which company E is operating is highly competitive, which requires efficient and structured processes in order to be successful.

**Company F** is a rather large company in Finland, generating a yearly revenue of approximately 200 million euros. Hence, it is the smallest company reviewed on this thesis. Company F's revenue is mainly based on selling commodities. Around 90

percent of its revenue is coming from global sources. Company F has a rather large supplier pool, containing around 4000 suppliers. However, a few hundred of them are active. Approximately 400 suppliers are supplying materials, plus and additional 100 of service providers. Due to organization's industry, active supply base is rather small, hence there are rather few capable suppliers available. Company F has around 15 sourcing and purchasing personnel currently working. Quality is one of company F's key fundamentals, and the industry has quite strict regulations which also guides the way of doing business. Table 2 illustrates the interviewees and their titles accordingly.

TABLE 2 SUMMARY OF COMPANIES AND INTERVIEWEES

Company	Interviewee's title			
Company A	Sourcing Manager			
Company B	Sr. Sourcing Manager			
Company C	Director, Group sourcing			
Company D	Sourcing Manager			
Company E	Sourcing Manager			
Company F	Sr. Sourcing Manager			

Table 3 summarizes some of the key features of each interviewed company. Hence, these elements are being discussed thoroughly on the previous and following chapters. This table gives a general look into the companies' supplier base, size of the company and its sourcing department. Additionally, the industry and the global/local aspects are presented on general level. Also, the use of Kraljic matrix is presented.

TABLE 3 COMPANIES' KEY FEATURES

Company	Company A	Company B	Company C	Company D	Company E	Company F
Revenue	>1000m€	≈400m€	>1000m€	>1000m€	>1000m€	≈200m€
					Service/	
Industry	Commodity	Service	Commodity	Service	commodity	Commodity
Size of sourcing						
dept.	20	10	50	25	40	15
Local or global						
oriented	Local	Local	Local/Global	Local/global	Local/global	Global
Amount of						
suppliers	2000	300	10000	5000	4000	4000
						On group
Kraljic Matrix	Not in use	Not in use	In use	Modified	Modified	level

## 4.3 Procurement process

The procurement process of company A is driven and regulated by the Finnish procurement law. Therefore, there are some differences between company A's and a typical listed company's procurement process. There are a couple of triggers which will start the procurement process in company A. One and maybe the most common in general, is a new need for a product or service, which can't be done solely in-house. Additionally, company A is monitoring its procurement with a long-term scope, and tries to put out a new tendering process every third year, if possible.

While the procurement process is driven by the procurement law, company A has also some own guidelines and rules for their procurement process. A general guideline is that every purchase which has over 50 000 € of value should be put through the procurement process. The procurement process starts from the specifying of the purchased commodity or service. Hence, company A designates a specific steering group for the procurement process, which is being led by the project manager, who is often the sourcing manager of a specific category. The tendering process is sophisticated and offers a possibility for suppliers to get involved and share their

knowledge for better results. Suppliers may also ask some additional questions related to the tendering process and to the specifications of the purchased commodity or service. If the purchased process is large enough, company A's board of directors may also be involved in some manner. As the anonymous A had a responsibility on an indirect sourcing category, she underlined the importance of quality aspect in service procurement.

"The importance of quality is notable in indirect sourcing, and therefore quality has a high weight in our tendering process. Suppliers are being reviewed by both attributes, price and quality" (Sourcing Manager, Company A)

Company B's procurement is being regulated heavily by the Finnish public procurement law. Hence, generally all the notable procurement in this organization is being tendered. Although, the value limits for a proper purchasing process may be rather high, mainly due to the industry on which Company B is operating on, where the purchased commodities and projects are often large entities. Company B sees the procurement process as a vital part of its whole procurement strategy. Hence, the business units in this organization are responsible for the strategy and its implantation and integration to the procurement processes.

As the procurement process is a major part of company B's strategy, all the larger procurements are well planned beforehand. The planning part of the process is being followed by a tendering process, where also an interaction and co-operation happens with the tenderers. Due to the industry of company B, there are often a rather few capable suppliers available for tendering. While the best offer has been picked, the contracting part of the process takes place. After the contract has been established in consensus, company B orders the planned procurement. Hence, on indirect procurement the service is often being monitored while it has been received, to ensure

a proper quality. After all these steps supplier relationship management takes place and is being performed and maintained thorough the contracting period, which is often counted in years. The sourcing manager from company B, sees that there are a lot of similarities between public procurement and procurement which is not so heavily regulated. The biggest differences are on the control points during the procurement process and on the maintaining of supplier registers and portfolios. The sourcing manager or the sourcing director is responsible of the procurement process, depending on its size and impact for the organization.

Company C has a straightforward and a well-structured procurement process. The procurement process is being triggered by a few most common factors, which are: (1) the current contract period has come to an end, (2) the current supplier is not capable enough or (3) a completely new need rises. Interviewee C underlined that it is important to define the new need thoroughly before proceeding in the procurement process. When the actual need has been defined, a further specification is being performed. Hence, in the following phase the capable suppliers are being tracked from the specific industry. This is being followed by the tendering process and the actual tenders are being received from the suppliers. After the evaluation of the suppliers and their tenders, a contract is being established. Furthermore, the picked supplier is being added to the preferred suppliers list. The contract management phase includes constant supplier relationship management. The intensity of SRM is determined by the elements of how critical and strategical the supplier and the procured matter is.

"The draft version of the contract should be taken under review and evaluation with the supplier before the actual contract is being signed." (Director, Group Sourcing, Company C) Company D has a bit more straightforward procurement process. Hence, it is not guided by the Finnish procurement law. Although there are naturally a lot of similarities between each company's procurement process which are involved in this thesis. As the interviewed sourcing manager from company D was dealing with indirect processes, the main scope of interview was naturally set to the service related sourcing. In company D, the procurement process starts normally from a new need or an existing purchased matter or supplier is not satisfying enough or the current relationship with the supplier is poor and can't be improved by normal methods. While the need for new procurement has been specified, the sourcing phase starts. On this phase potential suppliers are being contacted and a specifying, request for quotation and actual quotations from suppliers take place. After sourcing and the quotation part has been completed, contracting part begins. A contract is being reviewed by both sides before its activation. After contract has been established a purchasing may begin. This is being followed by SRM during the contract period. A constant SRM and evaluation is often needed during the contract time, especially in the indirect procurement, where purchased entity may be rather complex.

In company E, the procurement process starts from a new need or demand, or if an existing contract has come to an end. The need for a new procured matter comes often from different business unit. Hence, sourcing department should be included right from the start to the process. As the need has been specified, a further industry analysis is being executed to get a wider picture about the sourced matter. Additionally, a cooperation with the suppliers makes also the specifying part easier. This is being followed by the actual tendering process. Interviewee E underlined that the contract and the general terms should be included already on this phase, in order to tackle problems which may occur with the contract when the supplier has been already selected. However, the contract may be also adjusted after the tendering has been completed, if there are some supplier related issues. When the contract has been signed, the purchasing may begin. This is being followed by a proper SRM strategy for the whole contract period. In company E, generally all sourced projects which have a

value over 100k€ will be put through a structured procurement process. However, there are no pre-set amount for this, hence it is more a personal decision for the sourcing manager. In Company E, the sourcing managers have their own categories, and they are responsible of their procurement projects.

"The need for a new commodity or service comes often from business units. Hence, the sourcing department should be included to this project at the initial stage for better results." (Sourcing Manager, Company E)

Company F's procurement process follows the other organizations in this thesis which are not under the public procurement law. The process starts from a need which is being forwarded to the sourcing department. The need is being analyzed and specified accordingly, before proceeding in this process. Hence, one of the key factors regarding the sourced commodity or service is, if it has some kind of impact on the final product, it goes through a tight process. This requirement is originating from the regulations of the industry on which the company F is operating in. Company F is a rather independent organization, but it is a part of a bigger group. Hence, during the procurement process suppliers which are accepted on group level are being preferred. However, many of the new sourcing projects are originating from R&D department, which affects also the procurement process. In the industry where company F is operating on, there are often a rather limited capable supplier portfolio available and the suppliers are being identified already on the R&D phase of the products. Still, as a proper tendering and competition between suppliers is the procurement process' target. Also, a proper SRM is being established, which is often crucial for good results, while the procured entities might be rather complex. Company F does not have a specific value based limit for tendering. However, this kind of limit exists for some contracts and commitments. Sourcing manager/specialist is responsible of the procurement project. Company F's procurement process has been described in its quality management system.

"The instructions from the group level for sourcing projects should be complied with.

However, if the local company has a better understanding of the local case, these instructions do not necessarily apply." (Senior Sourcing Manager, Company F)

Overall all the organizations which were interviewed to this thesis had a rather similar procurement processes when compared to each other. The biggest difference is between a company which is required to do the tendering utilizing a public procurement law, which sets some additional limitations and requirements for both the suppliers and the buyer. Hence, a few phases stood out from the others in the interviews. Each one of the interviewees underlined the need for a thorough specification of the procured matter, before moving forward. Additionally, the contract draft should be taken under review a well before the actual signing of the contract. Especially on the more demanding industries and procured entities, a good relationship with the supplier is essential. Additionally, all the interviewees mentioned the importance of supplier relationship management. For example, demanding and complex service procurement entities may need meetings between the supplier and the buyer on a weekly basis.

# 4.4 Strategic procurement

Strategic sourcing and procurement was one of the main themes on the interviews. Hence, sourcing and procurement has a major impact on organization's success. In these days, all successful organizations have adopted procurement as a strategic function. It essential to have a proper procurement strategy for a long-term success. Strategic procurement has been traditionally connected to the sourcing of materials. However, services have more and more impact on the current business environment, and they exceed material procurement in many organizations.

Interviewees were asked how they would describe and define strategical procurement for their organization. Interviewee A stated that a strategic procurement is generally related to organization's core business, and has a significant impact on it. For example, IT-services may be crucial for organization's everyday business, and the risks related to these services need to be managed and mitigated. Hence, a strategical element is also connected to those procurement projects which have a high value, those projects are naturally critical to organizations. Company A has established a general process for all the strategic procurement. Additionally, projects with high value and a strategical aspect will go to the board of directors for further analysis and review.

Company A has not defined service specific procurement models, hence the process for material and service procurement is somewhat similar. Although, the sourcing manager may perform some adjustments depending on the procured matter. This is the case in almost every organization which were interviewed for this thesis. There are some guidelines and rules, but this can be adjusted and overruled if the sourcing manager sees that is necessary. Company A utilizes various tools in their strategic procurement including things such as, templates for RFQ- and prizing- processes. Company A has also a structured SRM process, which is strongly connected to a successful strategical procurement on a long-term scope. Company A does not utilize Kraljic matrix or its modifications. However, Interviewee A stated that sourcing managers often plan things through a Kraljic matrix. Hence, they evaluate financial and supply risks for different procurement projects, which is strongly related to Kraljic's way of planning.

Additionally, to the strategic sourcing theme, Interviewees were asked about their supplier strategy, if they would pursue towards a single sourcing or dual sourcing, for example. Hence, they were also asked how the supplier risks would be mitigated and what criteria effects these decisions. Company A generally prefers a single sourcing model, mainly because it is more efficient and manageable and the supplier related

risks can be mitigated by other means, such as regular SRM meetings. Although, company A has established a dual sourcing model for some of the critical categories such as, IT. However, in company A these dual source suppliers are not necessarily supplying the exact same things, but are rather supplementing each other. If a supplier related risk escalates, the risks are more manageable in general with these kinds of models.

"Generally speaking, organizations should aim towards a single sourcing, which allows better efficiency and SRM." (Sourcing Manager, Company A)

Company B has categorized its suppliers to different tiers. Hence, the higher the tier is, more strategical the supplier or the procured matter is. This tier system is structured and enables long-term and strategical approach to supplier and procurement management. The supplier relationships are being guided by the same tier system. The general amount for supplier meetings is based on supplier's tier rating. For example, a high tier supplier is being met quarterly. This tier system sets a yearly schedule for supplier meetings and allows a structured SRM to be established. The tier system also designates the responsibilities for sourcing managers to the suppliers and procurement projects. SRM is being supplemented by audits and educative events, which are often a part of supplier strategy.

Company B has divided its procurement into different categories. Each category has generally its own sourcing manager, who are being supported in some cases with buyers. Sourcing manager is responsible of his/her suppliers. Supplier meetings have generally a structured agenda, which can be adjusted depending on the case and the responsible sourcing manager. Company B does not utilize Krajlic's matrix. However, sourcing managers use their own expertise, and the aspects of Kraljic matrix are often covered, when the sourcing strategy is being established. Due to Company B's

industry, there are a rather few capable suppliers available. This may lead to situations where sole sourcing is the only viable option. Additionally, company B's suppliers are often working together towards a common goal. In these situations, proper supplier management, monitoring and guidance is needed. While, the procurement projects of company B are often rather large and complex, a proper risk management is essential part of success. The risk management is being supported by good contracts, SRM, auditing and expertise.

Interviewee C sees that a strategic sourcing and procurement is something that is connected to the strategical sectors of organization's business. Hence, this naturally varies depending on the observed organization and industry on which it is operating on. Company C has established a structured group policies for strategical procurement operations. This policy defines how the procurement should be performed, what are the monitoring methods, how the risks should be mitigated, for example. In addition to sourcing experts, there are also personnel from other business units involved on strategical procurement projects.

Additionally, to group policies company C utilizes a modified version of Kraljic's matrix as a one tool for strategical planning. Company C has further developed the original matrix, in order to increase its usability to organization's needs. Hence, the improved matrix focuses on risk assessment, mainly on economic and business-related aspects. Organization C's supplier strategy is mainly focusing on single sourcing. However, some categories may require additional suppliers and modified strategies. According to interviewee C, when a multiple supplier strategy is being chosen, the company C generally picks a one supplier which is clearly the main supplier and the other is supplementing the main suppliers' and buyer's needs.

"Strategical procurement is tightly connected to the strategical elements of organization's strategical business units." (Director, Group Sourcing, Company C)

Interviewee and company D see that procurement is as such a strategical function. The operational and tactical aspects step forward when the supply agreement has been established and the purchasing operations may begin. The strategical procurement in company D is being guided by structured processes and rules for supplier relationship management. For example, there are guidelines which define how often supplier from a specific category should be met yearly. On company D, the sourcing managers are responsible of their categories and its strategical elements.

Company D utilizes several different tools for a better strategic procurement. Company D uses a supplier/procurement matrix model which is being grounded on the Kraljic's matrix. Hence, the supplier categorizing is based on this modified matrix. Organization D is using procurement tools such as, templates, e-portals and process instructions. Additionally, there are some internal guidelines and instructions for supplier relationship management and other strategical elements. Company D is mainly focusing on single supplier model, on its supplier strategy. For critical and strategical procurement categories, company D may utilize a dual sourcing model. However, interviewee D noted that a dual sourcing model decreases the benefits gained from economies of scale. Furthermore, dual sourcing model is also more demanding in respect of supplier relationship management.

"When comparing single sourcing and dual sourcing supplier strategies, the dual sourcing model decreases the benefits gained from the economies of scale."

(Sourcing Manager, Company D)

Company E categorizes its strategical procurement based on few key elements, which are, the value or spend and the criticality of the procured matter on relation to organization's business. Additionally, the organization E evaluates the strategical impact of the procurement on both direct and indirect aspects to the end-customer experience. If the procurement project happens to be critical to the business, it will be escalated to the higher levels on the organization for further analysis. Organization E has established several structured processes for better strategical procurement. For example, SRM processes has been defined and they are being reinforced by the expertise of the sourcing personnel. A good example is a pre-defined supplier meeting on each quarter. Hence, the SRM-process in organization E is being grounded more on the importance of the procured service or good, rather than the criticality of the supplier.

In company E, the sourcing managers often have their own categories and they are responsible of the suppliers operating on these categories. However, the supplier responsibility may be shared if the supplier is operating across different categories. Additionally, the sourcing department is constantly monitoring that the agreed elements are being met, and corrective actions are being performed if needed. Company E utilizes a modified Kraljic matrix. This matrix is being used, in order to gain a better picture about the supplier and what kind of strategic nature it has. Company E has few dual sourcing situations; however, this is a rather rare case. The supplier related risk is being mainly mitigated by other means, such as good contracts, SRM and strategical planning. Hence, there are some service or good projects where might be additional suppliers operating.

"A modified Kraljic Matrix is being utilized at some levels, in order to gain better image about the supplier's state and its location on the matrix." (Sourcing Manager, Company E)

In company F, the strategical procurement is being examined on two different levels, on the corporation and on the business unit level. A typical corporation strategical procurement aspect, is a strategical partnership with a certain supplier, where to cooperation is wide and deep. Hence, these supplier partnerships are being then often utilized on the business unit level. The criticality and the strategical aspect of the procured matter or the supplier, are being grounded on its impact on corporation's corebusiness. Company F has defined several processes and tools for its strategical procurement. For example, the strategical suppliers are being met regularly and they are being monitored monthly with scorecards. There are also some additional tools, such as spend-tools, which helps on categorizing the suppliers.

The suppliers have their designated account managers which are often from the sourcing department. Hence, on the service procurement the business unit manager may also be responsible of the supplier. Company F does not utilize Kraljic matrix. However, it is being used on the group level, for better supplier categorization and planning. Regarding company F's supplier strategy, the organization is striving that each strategical and critical procured matter would have a substituting supplier, if the risks realize with the main supplier and the situation cannot be managed and mitigated. However, the company F has generally only one supplier per procured matter. This is mainly due to the effort which a proper SRM requires for multiple suppliers and due to the lack of capable supplier available on some categories, which is related to the complexity of the procured service or the good.

"We have several regular processes for the strategic suppliers, such as a monthly scorecard evaluation and monitoring." (Senior Sourcing Manager, Company F)

# 4.5 Improving service procurement

This chapter illustrates the different requirements of service procurement compared to the traditional material procurement. Hence, the interviewees were asked questions such as; does the service procurement process and material procurement process differ from each other, what kind of service procurement is important for the focal firm, how do you categorize procured services, how do you manage critical services, how do you measure services, and most importantly what would you do to increase the efficiency and the quality of the procured services.

Interviewee A stated that the basic procurement processes in organization A are the same for service and material procurement. However, some slight changes may be adapted to the process depending on the purchased matter. The most important purchased services for company A, are the ones with are tightly connected to the supporting elements of the whole business, for example the cash register system. These critical services wield potentially a high risk for the organization. Therefore, a proper service risk management is essential for a long-term success. Organization A tackles and mitigates these service procurement related risks with good contracts which include sanctions if the supplier is not fulfilling the requirements. This is being complemented by service level agreements (SLA) which is intended to give a good measure about the service's quality, key performance indicator (KPI) monitoring and regular SRM.

Peter Drucker said once, if you can't measure it, you can't improve it. Hence, the measurement of the services has proven to be a rather hard task to do, and organizations should strive to improve their measurement systems. Interviewee A had many good improvement ideas which would increase the value generated from the purchased services. Interviewee A would involve the service agreement contract in the earliest phase possible. Hence, this often enhances the understanding between

supplier and buyer. Additionally, the SLA-system should be improved, hence the specifications for it should be done carefully and this is a time-consuming process. Interviewee A also underlined the importance of the quality in service procurement. This means that the tendering process could be a mix of quality and a price competition, and the quality should often have a rather high weight. Interviewee A noted also, that the measuring systems should be combined together for better analyzing. There seems to be also some meters that to not offer a relevant information, and these should be improved or disbanded for clarity.

Company B has a rather similar procurement processes for both material and service based projects. However, slight differences may appear depending on the case, but that is not necessarily related to the basic differences on the materials and services, but more to the actual procurement project itself. Hence, more complex projects in company B often include a lot of negotiation with the potential suppliers. Also, the Finnish public procurement law defines some preset elements and requirements for the procurement projects.

The most strategical and critical sourcing and procurement projects in company B are naturally linked to the core-businesses of company B. Hence, the most crucial of these risks are often related to the supplier's capabilities to fulfill the requirements set by the buyer. In company B, these risks are being mitigated and managed by ensuring that the supplier has some references of previous successful projects and that they have a solid financial standing. Usually the procurement and tendering processes have for example, a requirement for suppliers to have a certain level of revenue. According to interviewee B, a well specified contract and communication before signing one, decreases supplier related risks.

In company B, the services are being measured with for example, by following factors; quality of service, quality of documentation, ethical and code of conduct related aspects and safety of the personnel. This is being supported by a comprehensive SLA system. According to interviewee B, it is important to clarify to supplier before the tendering process, about the measurement of the service quality during the contract period. Also, the quality aspects of the tendering should be illustrated thoroughly to the suppliers. Interviewee B call for a clear and combined metrics for the service measurement. Interviewee B continues that, the information from the KPIs should be relevant and the vast number of different indicators is not necessarily the best.

"Service level agreements and contracts should have financial consequences for the suppliers. Good performance should be rewarded and vice versa." (Sourcing Manager, Company B)

In company C, the procurement processes for the services and materials are somewhat similar. However, slight differences are rather usual. For example, in critical material procurement supplier auditing is rather common. Hence, on the indirect service procurement this would a rare case. According to interviewee C, the basic core for both material and services is the same. The most strategical and important procurement projects for the company C, are the ones which are connected to the core-competences of the firm. These can be both material or service origin. Hence, in strategical procurement the interviewee C noted that it is important to have clear responsibilities, what are the suppliers' tasks and what are the requirements for the buyer. The risks in strategical service procurement at company C are being mitigated mostly by good supplier co-operation and SRM. With a good relationship, the greater risks are being managed before they escalate and realize. If the risks are being realized, company C has designated a specific risk management groups to handle those cases.

According to interviewee C, measurement and cost generation factors are challenging but very important elements in service procurement. Hence, according to interviewee C, these elements are crucial when buyer is guiding the supplier and the whole project into the right direction. In company C, the measurement systems are integrated into the contract, at least for the general procurement projects and the target levels for the supplier should be established within a month after the contract period has started. Interviewee C underlined that the measurement has to be systematic and a long-term function, in order to yield the best outcome for the organization. Hence, the measurement function is often project specific, interviewee C stated that some of the service related projects are harder to measure than the others, for example in the field of marketing, which has proven to be rather hard to category to measure. Interviewee C also noted that, in indirect procurement the categories are often very different from each other and specification of the service output and its measurement is a difficult task to do. Generally, company C has established a good measurement systems for the biggest procurement categories, for both material and services related. However, smaller projects lack measurement system, due to this function's time-consuming nature.

"Organizations should move from specifying the procurement project's input, towards specifying the actual and desired output. This should be highlighted especially in service procurement" (Director, Group Sourcing, Company C)

Company D has generally speaking rather similar procurement processes for both material and service related projects. The basic features and phases of the procurement process are more based on the category and how complex the project is. In company D, the usual duration for a service procurement process is somewhere between four and six weeks. According to the interviewee D, the strategical service procurement categories are related to the continuance of the organization's business.

Hence, the risks related to these strategical services are often supplier and category related.

Interviewee D underlined the importance of a continuing supplier relationship management. Additionally, interviewee D continued that the basic specifications and requirements should be clarified to the supplier, before the contract has been signed. In company D, the probable risks are being mitigated re-actively by utilizing an extensive dialog with supplier. Interviewee D stated that, purchased services should be specified as well as possible already in contract. Company D utilizes a few key elements in service procurement for better results and measurement possibilities. Hence, the quality of a purchased service is being constantly measured. Also, a service level agreements and key performance indicators are being utilized for a long-term monitoring and measurement. If a supplier is not capable to meet the desired requirements, and the corrective actions have not been successful, company D may execute contract sanctions. To improve service procurement, interviewee D noted that, the contract should be updated from general forms to more category specific versions.

"Service procurement can be improved with a strong co-operation between organization's internal business units." (Sourcing Manager, Company D)

In company E, the procurement processes for both services and materials are rather same. However, the differences are strongly accumulated in the phase after the contract has been made. For example, the co-operation with the chosen supplier may be rather constant. The most important procured services in company E, are often related to the supporting elements of the core-business. The risks related to these strategical services are according to the interviewee E, mostly related to the supplier's capability of generating the required service. According to the interviewee E, supplier's capability is also related to the purchasing specifications. In other words, if the

requirements have been poorly specified, it causes problems t both supplier and buyer. Hence, in company E, the risks in strategical service procurement are also related to the complexity of the service, which is often rather hard to specify and define properly into the contracts and quotations. However, according to the interviewee E, this is only a case in complex service categories.

The procured services are being categorized in company E by a specialist team. Hence, the aim is to fit similar services under the same category umbrella. The risks in strategical procurement are being mitigated by a mitigation strategy, which includes elements such as total cost of ownership (TCO) thinking and quality monitoring. Also, in general suppliers need to have some kind of references from previous projects, on which they have succeeded. In company E, SLA and KPIs are implemented already into the contracts, and the requirements for those are being clarified to the supplier. Hence, the used KPIs are category and service specific in company E. According to the interviewee E, both stick and carrot are being used, to guide the generated service in to the desired level. Interviewee E noted that the number of deviations in the produced service or on its quality should be added to the contracts. Hence, a good performance would be rewarded and vice versa.

"The service quality would be probably improved if a bonus reward from a good quality would be addressed directly to the person providing the service, and not to the supplier." (Sourcing Manager, Company E)

The strategical and important purchased services in company F are related directly or indirectly into the organization's end-products. Hence, only the services which have an effect on end-product's quality, do have a structured process to follow. According to the interviewee F, the spend is not generally an element which defines if a service is strategical or not for the company. This is being defined more by service's impact to

the operating income or EBITDA. For example, in company F this kind of strategical service could be an outsourced R&D project, which has a direct impact on end-products functionality, schedule and quality. Company F is not categorizing purchased services on local organization level. However, on group level the services are being categorized.

Hence, the risks related to procured services are being mitigated by several methods. Company F has a strict quality requirements for their suppliers, this is also an industry related requirement driven by various regulations. Supplier need to have a documented quality management system, for example an industry specific ISO. Also in company F, the person in charge of the procurement project is required to do a market research and investigate that the supplier is capable to fulfill the set requirements. Additionally, suppliers are being audited by the buyer, and by third parties. In company F quality inspections are being made to the purchased material, however there is no structured quality check for purchased services. According to the interviewee F, there are some measurement systems and metrics implemented into the service purchasing contracts. The monitoring of these service requirements is the responsibility of the sourcing personnel of the specific project. Company F has not yet put much effort on improving the service procurement, however on group level the processes have been improved recently.

### 5 Conclusions

This last chapter illustrates and summarizes the whole thesis. The research questions presented in the first chapter are being discussed and answered. This is being followed by some managerial and practical implications. Lastly, a possible future research themes and objectives will be considered.

# 5.1 Discussion and summary

The aim of this thesis was to research what kind of purchasing portfolio would be suitable for service procurement. Additionally, the special features of service procurement are illustrated. Lastly, the measurement opportunities, tools and strategies for service procurement were researched. Hence, the basic structure of this thesis consists of the theoretical part, which presents the existing literature. This is being followed by the empirical part which were formed by semi-structure interviews. Six companies and as many interviewees were interviewed. In total, three research questions were formed. The first research question is presented below:

## 1) How a purchasing portfolio can be utilized in sourcing?

According to the literature and various scholars which were reviewed in the third chapter a purchasing portfolio can be a useful tool for example, for categorizing suppliers into different tiers. Kraljic matrix is the most used one of portfolio purchasing models. Four out of six companies interviewed in this thesis used a purchasing portfolio model in their procurement. Although, most of these four companies using it, had modified the matrix to a more suitable form. As companies' sourcing related resources are limited, Kraljic matrix offers possibilities to channel the resources to the most important suppliers and procured matters. This is also connected to pareto (80/20 rule)

and ABC-principles, in procurement there are often a few key suppliers which have high impact on buyer's success. Hence, while Kraljic matrix has the profit impact and supply risk dimension, it is often necessary to use other complementing tools for better results. In the interviewed firms where purchasing portfolios were not used, the similar classification was being done by the sourcing/category manager. However, this requires competencies and experience from the personnel. Additionally, this might not be utilized in every procurement category and the procurement strategy becomes less structured in general.

Purchasing portfolio, such as Kraljic matrix would be most useful in organizations which have a lot of different procurement categories with various items or services and suppliers. In order to work accordingly, a purchasing portfolio requires also some preparation and data about reviewed items or suppliers. Before actually using the matrix, one should define the correct criteria for the evaluation. When the results from the purchasing portfolio has been analyzed, it should be implemented into the procurement strategy. Finally, the strategy needs naturally some adjustments and monitoring over time.

# 2) What are the similarities and differences between service and traditional material procurement?

According to the existing literature and the interviewed companies in this thesis, the service and material procurement do have a rather similar process and phases in it. The interviewees stated that procurement process is more defined by the complexity, substance and the regulatory aspects of the procured matter. In general, the complex sourcing projects require a lot of specifying and research prior to the actual supplier selection and contracting. Hence, the procured services are often rather hard to define, measure and specify, which makes them also complex. Additionally, the end-results from sourced services are hard to forecast. According to the interviewees this can be tackled by good contracts, measurement and supplier relationship management.

Literature and interviewees indicated that, in order to have a good service quality, a financial incentive or a sanction which is connected to the measurement of service quality, is often required.

# 3) What measurement methods and metrics are efficient for measuring purchased services?

As noted in the literature, service procurement has received a rather little amount of attention amongst scholars. Still, service procurement has bigger and bigger impact on today's business environment. The measurement systems for service procurement are rather unsophisticated and undeveloped when comparing to material procurement. Although, some progress has emerged in recent years. Most of the interviewees noted that there are a lot to improve on measuring services. Hence, the ultimate goal for the interviewees was, to have a few key measurement aspects, not too many, not too few. Some of the interviewees complained that a too complex measurement system is inefficient, consumes too much resources and the information might be irrelevant in some cases. Also, many interviewees underlined that the service quality and measurement must be linked to financial consequences. Hence, good service quality is awarded and vice versa, if the buyer's requirements are not being met, sanctions will follow eventually. The metrics and measurement systems are often most valid when they are created in co-operation with the suppliers. The measurement systems of a specific service should also be implemented into the actual purchasing contracts and service agreements.

Total cost of ownership is one of the key elements in strategic procurement. This is being emphasized in service purchasing. Hence, the actual long-term costs from procured service are often a bit harder to measure than, the costs from traditional material purchasing. Long-term and efficient service procurement requires good measurement and monitoring methods, which initially requires good data. According to

the interviewees, SLA and KPI measurement systems are crucial for efficient service purchasing. As stated before, both parties, the buyer and the supplier should understand the requirements and the indicators which are being measured. This requires a good relationship with the supplier, which is an essential aspect in complex service procurement projects.

### 5.2 Recommendations

A few key elements and recommendations for efficient service procurement stood out from the analyzed literature and interviews. Various scholars such as Van Weele and Rozemeijer (2009) underlined that the first phase "specify" in service and material procurement process has a significant impact on the end results. This phase seems to be emphasized on service procurement, where the pre-specification is more time consuming and complex process. Interviewees also shared these thoughts, one for example noted that organizations should strive from specifying the input to specify the end result, output. In other words, the more procurement professionals and shareholders work proactively, the more easy and efficient the next phases of the procurement process will be.

A second key element to a successful service procurement according the interviewees and scholars, seemed to be a structured procurement process in general. This is especially a vital factor in big matrix organizations which have multiple different procurement categories, a vast number of suppliers and available resources and personnel. A structured process should be complemented with different tools which enable a strategical approach to procurement and purchasing. For example, a Kraljix matrix works well as a categorizing and prioritizing tool. Large organizations are also able to modify the existing tools to suit those better to the organization's special needs, which are often industry specific. Many interviewees underlined the importance of a good supplier agreement and contracts. They continued that a good contract is often

formed in co-operation, and the key requirements, forecasts, incentives and possible sanctions are implemented into it, in mutual understanding. Hence, good contracting diminishes and mitigates long-term supply chain and supplier related risks significantly.

There were a couple other success factors for efficient service procurement, which stood out from the interviews and from the literature. Many interviewees noted that a good communication with the suppliers and a structured SRM process is essential in strategic service purchasing. While supplier relationship management is time consuming process, the limited resources should be allocated to the right and most critical suppliers. If organization has a large supplier base, categorizing tools such as Kraljic Matrix are valuable. Also, the need for supplier monitoring was highlighted. Hence, a proper monitoring requires a good measurement and data collection system, in order to be successful.

# 5.3 Reliability and validity

There a couple of limitations in this study, which are related to validity and reliability. According to Saunders et al. (2009) validity is related mainly on the actual exactness of the study. In other words, validity indicates how well and precisely the chosen research methods measure the research objects. Saunders et al. (2009) continue, that the reliability of one's research indicates how consistent the study is. For example, if similar datasets with similar aims are being researched in a reliable way, the results and conclusions should be rather similar.

One of the main limitations of this study is the small sample size. Hence, six interviews were held in total. A larger interviewee base would give a more coherent end-results. Additionally, all the interviewed persons and companies were located in Finland. Hence, the Finnish sourcing methods may vary from global sourcing methods. Also, all

the companies in this study were rather large. Hence, if the same number of smaller companies would have been interviewed the results would probably be very different. There are some other studies with similar theme and aim available, and the results are quite similar. The reliability of this study may be affected by the researcher's actions. For example, some of the interview questions may have had a larger weight between different interviews. Also, some valid data from the interviews may have not end up in this study and some answers got more coverage than the others.

# 5.4 Future research opportunities

As this study was a rather general survey about the usability of purchasing portfolios in strategic service purchasing, it would be interesting to dig a bit deeper into this theme. Hence, an actual case company study would give some practical implications for companies and sourcing personnel. Also, this practical study would be focusing on service procurement solely. This thesis was mainly focusing on Kraljic Matrix, therefore future researches could focus more on alternative purchasing portfolio models, which have seen only little interest among scholars.

The measurement of purchased services is also a theme which needs to be studied more. According to the interviews, many organizations still struggle in measuring their purchased services. It would be interesting study, to create a measurement and KPI system for measuring purchased services for a case organization. Also, the quality versus price debate in service purchasing is a rather interesting topic to discover. Hence, the quality issue in service purchasing is very relevant in public procurement, where the procurement law sets the boundaries for procurement projects. In public procurement, the suppliers need to be treated equally, and a proper structured tendering process which takes also the quality aspect into account, is a must in service procurement.

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### **APPENDICES**

### **Interview Questions**

- 1. Organization and Suppliers
- What is your name and title? What is your organization's revenue, industry and size of sourcing department?
- Is your organization global or local?
- What kind of supplier portfolio your organization possess?
  - O How many suppliers do you have?
  - o What are the criteria for the suppliers?
  - o How are the suppliers being categorized?

#### 2. Procurement Process

- How do you start a procurement process?
  - o What different phases it has in your organization?
  - Are all of your procurement projects being tendered?
  - Do you purchase from public sector? Does this process differ from the normal process?
- Who is the responsible for the procurement process?

# 3. Strategical procurement

- How would you define concept, strategical procurement?
- Does your organization have structured processes for procurement?
- How do you manage your supplier relationships?
  - Do you have structured processes for this?
  - Do you have defined responsibilities for SRM?
- What kind of tools does your organization utilize for strategical procurement?
- Do you use purchasing portfolio models in your procurement?
- Please describe your supplier strategy. Do you have single/sole sourcing or do you prefer dual sourcing for example? What criteria does affect these decisions?

- 4. Procurement of services and materials
- Does your material procurement process differ from the service procurement process?
- What kind of service procurement projects are important for your organization?
  - What kind of risks do these projects possess? Are these risks more related to the supplier or to the procured material/service?
- Do you categorize your material and/or service purchasing?
  - O What is the criterion for this?
- Do you weight price over quality in tendering?
- How do you manage your critical service and material procurement?
  - o Do you have multiple suppliers for critical matter?
  - o How do you manage purchasing related risks?
- How do you measure the quality of purchased service or material?
  - o Do you have quality inspections for material, for example?
  - o How do you measure services? Do you have SLA or other metrics?
- How would you improve your organizations service procurement efficiency?
  - How would you improve your organization's existing measurement systems for service purchasing?